
BULLETIN 2000-004-SP

APRIL 19, 2007
(Revised)

SPRINKLERS IN CRAWL SPACES
(ONE & TWO FAMILY DWELLINGS)

This bulletin is intended to advise designers and contractors of the requirements related to sprinkling of crawl spaces in one and two family dwellings where the sprinkler systems are designed and installed in accordance with the requirements of NFPA 13D, Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes (2002 Edition).

Exception Number 4 of Section 4-6 of NFPA 13D, states that "Sprinklers are not required in attics, crawl spaces and other concealed spaces that are not used or intended for living purposes or storage."

Please be advised that in the case of crawl spaces which contain ignition sources such as mechanical equipment, sprinklers are required for detection purposes. Two options for providing sprinkler protection in a crawl space which contains an ignition source are as follows:

OPTION 1

The mechanical equipment may be enclosed in a separate sprinklered mechanical space provided the space is fully enclosed with an access door of sufficient size to facilitate maintenance and remedial/replacement of mechanical equipment.

OPTION 2

Where residential sprinklers are installed below smooth ceilings, the residential design criteria provided in NFPA 13D applies. However, where a smooth ceiling surface is not provided, ie. open joist construction, the following is required:

1. The area of sprinkler operation shall be no greater than 4.3 m x 4.3 m (14 ft. x 14 ft.) for any one sprinkler.
2. Where a combustible main water service is located in the sprinklered crawl space, the combustible service shall be either underground or protected throughout by a covering with a minimum fire-resistance rating of at least 30 minutes.
3. Sprinklers may be positioned with the deflectors slightly below the underside of the floor joist above.
NOTE: The intent of this requirement is to provide fire detection (alarm) and only a limited degree of fire control.
4. The crawl space area must be maintained above freezing by a permanent and reliable means.
5. Combustible sprinkler piping located in any sprinklered area shall be covered in accordance with Sentence 3.2.5.14.(3) of Division B of the Vancouver Building By-law.

Original signed

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