

A TechNotes

Editor - Roland Asp, CET

#456

01/26/2021

This Edition of TechNotes is a summary of owner's certificate requirements prepared by Michael Joanis, PE.

Owner's Certificate Requirements

An owner's certificate is a declaration by the owner, or their authorized agent, that provides the sprinkler system installer the following information:

- 1. Intended use of the building
- 2. Materials in the building
- 3. Maximum storage height
- 4. Preliminary plan of the building
- Design concepts necessary to perform the detailed layout of the sprinkler system
- 6. Water supply information
- 7. Known environmental conditions of the water that may cause corrosion, including microbiologically influenced corrosion



Purpose of the Owner's Certificate

Typically, the sprinkler system installer works for the general contractor or construction manager and does not have a direct or contractual relationship with the owner. The owner's certificate provides a formal method of communication between the owner and the sprinkler system installer. The owner's certificate is intended to be used for all new systems and for changes in existing building occupancy or use. The sprinkler system installer uses this information as the starting point and basis of their design. This forms the foundation from which the requirements of the standard are applied, and design decisions are based. The owner's certificate is essential to ensure code compliance and appropriate fire protection meets the owner's needs.



HIGH EXPANSION FOAM SYSTEMS

MAXIMIZE PROTECTION WHEN THE STAKES ARE HIGH

VIKING

Requirements of the Owner's Certificate

The requirement for an owner's certificate was first introduced in the 2002 edition of NFPA 13. Yes, that's eighteen years and six editions ago. It is certainly not hidden in the standard either. The requirements for the owner's certificate are found right up front in Chapter 4, General Requirements. It is located between the basic concepts for level of protection and classification of hazards. An example of an owner's certificate is provided in NFPA 13, 2019 edition, Figure A.27.1(b).

The International Building Code (IBC), up to the 2021 edition, Section 107.2.2 requires the submittal and approval of fire protection shop drawings prior to system installation. This section also requires that shop drawings contain all information required by the referenced standard(s). The International Fire Code (IFC), 2018 edition, Section 105.4.2.1 (2021, Section 106.2.2) includes the same requirements. NFPA 13 is the referenced standard for automatic sprinkler systems.

NFPA 13 refers to shop drawings as working plans. Working plans are provided by the installing contractor and include details required for review, approval, and installation of the system. Starting in the 2007 edition, the standard requires working plans to include a copy of the owner's certificate. NFPA 13, 2019 edition, Section 27.1.1.1 is the current reference.

To summarize, so far, the owner (or authorized agent) is required to complete the owner's certificate and provide it to the sprinkler system installer (contractor). The sprinkler contractor is required to use the owner's certificate to complete their detailed design and to submit a copy with their working plans for approval prior to installation.



Why Does the Owner's Certificate Get Overlooked?

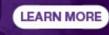
There are a few reasons owner's certificates are often overlooked. First, owners have no idea they are supposed to do this. They defer this responsibility to their consultants, including the architect and/or engineer. The consultants work directly with the owner to obtain the information they need to complete their preliminary plans. They are not required to complete or submit an owner's certificate with their work. The contractor is often confident in their review of the engineer's preliminary plans, does not request a copy of the owner's certificate, and does not

submit a copy with their working plans for permit. The authority having jurisdiction (AHJ) receives a full set of working plans that detail the required information. They do not enforce the requirement for the owner's certificate to ensure the owner's responsibility is met.

It is not reasonable to expect owners will figure this out and take it upon themselves to complete the certificate. They are reliant on engineers, contractors, and AHJ's to make them aware of the requirement and to guide them through the process. Engineers should leverage their direct relationship with the owner to help complete the owner's certificate. This will document the engineer's work and ensure a copy is available for the contractor. Contractors can contribute by pointing out the requirement to owners, asking for the certificate if they do not receive it, and including a copy with their working plans. AHJs can close the loop and ensure compliance by requiring the owner's certificate be included with the working plans as required by code.



New UL-listed antifreeze with a breakthrough corrosion inhibitor





The Owner's Certificate Can Reduce Liability

The owner's certificate is also essential to reduce risk and liability. Finding yourself in litigation without an owner's certificate will lead to many questions regarding how design and installation decisions were made. Your contract for the project and liability insurance policy typically require compliance with all applicable codes and standards. It isn't like the owner's certificate is fine print that may not be noticed. It is right there in the basic requirements of the standard and will not be missed by the attorney's experts.

An owner's certificate is a basic tenant of NFPA 13. It is required by code and the starting point for each project. It is required as part of your working plans. It will reduce your risk and ensure the owner's fire protection needs are met. All parties involved have a responsibility to improve the awareness, compliance, and enforcement of the requirements for owner's certificates.

Need More Information?

For more information including the requirements referenced in this article, please review the *International Building Code* (2021 edition) Section 107.2 and NFPA 13, *Standard for the Installation of Sprinkler Systems* (2019 edition) Sections 4.2 and 27.1. Please feel free to contact me with any questions or comments at **joanis@nfsa.org**.

References:

International Building Code, 2021 edition, International Code Council, Inc, Country Club Hills, IL, 2017.

International Fire Code, 2021 edition, International Code Council, Inc, Country Club Hills, IL, 2017.

Matt Klaus, *Building Use and the Importance of Owner's Certificates in Sprinkler System Design*, NFPA Journal, November December 2017, National Fire Protection Association, Inc. Quincy, MA, 2017.

NFPA 13, Standard for the Installation of Sprinkler Systems 2019 edition, National Fire Protection Association, Inc. Quincy, MA 2018.

Top Tech Competition



The 2021 Top Tech Competition will be held in October 2021. The window for testing will open summer 2021. We look forward to your participation. More details will be out soon. Keep studying!

New EOD Process

Starting on July 15, 2020, the NFSA has a new EOD process where members can submit questions, track the progress, and view their EOD cases. The step by step process is detailed in <u>TechNotes #442</u>.

National Fire Sprinkler Association

514 Progress Dr, Ste A, Linthicum Heights, MD 21090 1-800-683-NFSA (6372)













