CALIFORNIA DEPARTMENT of FORESTRY
and
FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL

FREQUENTLY ASKED QUESTIONS CONCERNING NFPA 25, 2006 CALIFORNIA EDITION

Based on NFPA 25 2002 Edition

Published by

FIRE ENGINEERING DIVISION

Revised 05/12/2011

http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer_aes.php

Preface:

This document only addresses the frequently asked questions concerning California amendments made to NFPA 25 and Title 19, California Code of Regulation. Questions regarding the non California amendments of NFPA 25 should be directed to NFPA. Code interpretation regarding California amendments may be found on the State Fire Marshals' website: http://osfm.fire.ca.gov/codeinterpretation/codeinterpretation.php.

TABLE OF CONTENTS

SECTION NUMBER	CATEGORY
1	Laws, Regulations and Information
2	Differences between Title 19 CCR and NFPA 25
3	Records of Inspection Test and Maintenance
4	Systems Designed under Earlier NFPA 13 Editions
5	Back Flush Requirements
6	Requirements for Inspection, Test and Maintenance
7	Microbiologically Influenced Corrosion (MIC) in Fire Systems
8	Miscellaneous Questions

SECTION 1—LAWS, REGULATIONS AND INFORMATION

Question: Where can I find the law and the regulations that govern the inspection, testing, and maintenance of fire protection systems?

Answer: For the law (statute) see Health and Safety Code (H&S) 13195. You can view the law by visiting: www.leginfo.ca.gov and clicking on "California Law", then click on Health and Safety Code and type in the Section (13195). For the regulations see Title 19, California Code of Regulations (CCR) Chapter 5 Automatic Fire Extinguishing Systems. You can view the regulations by visiting: http://osfm.fire.ca.gov/pdf/fireengineering/fe/AESLawsRegs.pdf.

Question: When did this Standard come into effect in California?

Answer: The NFPA 25, 2006 California edition based on NFPA 25 2002 edition became effective April 1, 2007.

Question: Can a company holding a State Fire Marshal "A" License ***repair*** fire protection system components?

Answer: Yes. Pursuant to the Business and Professions Code § 7048, a State Fire Marshal "A" Licensed company may repair a water based fire protection system up to the $500 limit for labor, materials, and all other items specified by the Contractors State Licensing Board.

Question: Can a company holding a State Fire Marshal "A" License ***replace*** fire protection system components?

Answer: Yes. Pursuant to the Business and Professions Code 7048, a State Fire Marshal "A" Licensed company may replace water based fire protection system components up to the $500 limit for labor, materials, and all other items specified by the Contractors State Licensing Board.

Question: Is a CSLB, C-16 Licensed Contractor required to follow the requirements of Title 19 CCR adopted by the State Fire Marshal (SFM)?

Answer: Yes. Health & Safety Code § 13195 requires the SFM to develop regulations to establish and control a program for the inspection, testing, maintenance of automatic extinguishing systems. H&S 13196.5 (d) exempts a specialty contractor as defined in the Business and Professions Code 7058 from the *licensing* requirements of the SFM only.

Question: Is a CSLB, C-16 Licensed Contractor required to obtain a State Fire Marshal license in order to conduct inspection, testing and maintenance of water based fire protection systems in accordance with the requirements of Title 19 CCR Regulations adopted by the State Fire Marshal (SFM)?

Answer: No. Health and Safety Code 13196.5 (d) exempts a specialty contractor as defined in the Business and Professions Code 7058 from *licensing* requirements.

Question: What kind of license is required to measure the voltage and amp readings during a test of an electric fire pump?

Answer: Either a CSLB C-16 License (Fire Protection Contractor), a CSFM "A" License (Automatic Extinguishing Systems Concern), or a CSLB C-10 License (Electrical Contractor).

Question: Is the owner or his designee permitted to conduct a visual examination *(inspect)* a system in a building he or she owns?

Answer: Yes. Title 19, § 904.1 states:

> ***Inspection Requirements.***
> *(a) A license shall not be required to perform inspections. Inspections may be conducted by any person designated by the building owner or occupant who has developed competence through training and experience.*

Question: Are there any state amendments we should pay special attention to?

Answer: All of them are important. Refer to NFPA 25, 2006 California edition. (Please see the shaded gray areas indicating the amendments). For example, the FDC back flush requirements found in 12.7.4.

Question: Was there a problem with the way fire sprinkler systems were being maintained under the previous standard?

Answer: Yes. Title 19 did not adequately address the details of inspection, testing and maintenance. The requirements in NFPA 25, 2006 California edition are more detailed than those found in Title 19.

Question: Have other states adopted NFPA 25?

Answer: Yes. Currently, NFPA 25 has been adopted by 37 states.

Question: How and when was the fire service community and the public notified?

Answer:
• Throughout the adopting process the fire service community was kept abreast of the developments through the NorCal and SoCal Fire Prevention Officer meetings. A presentation was made to the Cal Chief's Fire Prevention Officer Section in 2000.

• In 2003, State Fire Marshal John Tenant empowered workgroup members to give presentations regarding the adoption process to various stakeholder groups throughout the state.
• Additionally an Internet campaign was instituted to memorialize the concerns of the fire service. The information was available to the public on our website. We also posted the Automatic Extinguishing System Advisory Committee meeting minutes and proposed regulation on our website.

• In 2005, State Fire Marshal Ruben Grijalva established a new website created to accept comments on this proposed regulatory package and encouraged participation from all stakeholders.

• In 2006, the official rule making package was submitted to the Office of Administrative Law (OAL). Stakeholders were again notified of the public comment period.

Question: Who can perform inspections of Automatic Extinguishing Systems?

Answer: Title 19, § 904.1 (a) states:

> ***Inspection Requirements.***
> *(a) A license shall not be required to perform inspections. Inspections may be conducted by any person designated by the building owner or occupant who has developed competence through training and experience.*

Question: Who can perform testing and maintenance of Automatic Extinguishing Systems?

Answer: Title 19, § 901 (3.3.20) states:

Inspection, Testing, and Maintenance Service. *A service program provided by:*
(1) *a qualified State of California Contractors State Licensing Board Licensed Fire Protection Contractor (C-16) as defined in subsection (b) of § 7058 of the Business and Professions Code, or*
(2) *a qualified California State Fire Marshal Licensed A (Type 1, Type 2, or Type Concern*

Question: Can a local fire department adopt testing and maintenance requirements ***other*** than the service requirements found in NFPA 25/Title 19?

Answer: No.

Health and Safety Code § 13198.5. Uniform Application
It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and building standards adopted by the State Fire Marshal pursuant to § 13195 shall apply uniformly throughout the State of California, and no state agency, county, city and county, or district shall adopt or enforce any ordinance or rule or regulation regarding automatic fire extinguishing systems which is inconsistent with the provisions of this chapter or the regulations and standards adopted by the State Fire Marshal.

Question: Can local fire authorities adopt testing and maintenance requirements that are ***more restrictive*** than the service requirements in the California Code of Regulations, Title 19?

Answer: No.

Health and Safety Code § 13198.5. Uniform Application
It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and building standards adopted by the State Fire Marshal pursuant to § 13195 shall apply uniformly throughout the State of California, and no state agency, county, city and county, or district shall adopt or enforce any ordinance or rule or regulation regarding automatic fire extinguishing systems which is inconsistent with the provisions of this chapter or the regulations and standards adopted by the State Fire Marshal.

Question: Are there any new licensing requirements?

Answer: No. The licensing requirements in Title 19 have not changed.

Question: Are Fire Suppression Systems Tags and Labels required to be submitted to the Office of the State Fire Marshal?

Answer: Yes, all labels and/or tags shall be submitted to the Office of the State Fire Marshal for approval in accordance with Title 19, § 906, California Code of Regulations, states:

> ***General***
> ***(a)*** *Labels shall be used on water-based fire protection systems.*
> ***(b)*** *Tags shall be used on engineered and pre-engineered fixed extinguishing systems.*
> ***(c)*** *Labels and tags shall be white with black letters. They shall be five and one-fourth inches (5-1/4") in length, and two and five-eighth inches (2-5/8") in width with a one-fourth inch (1/4") tolerance for each dimension. One sample label and/or tag shall be submitted to the Office of the State Fire Marshal for approval.*

Question: What are the present fees for a State Fire Marshal's Type A license?

Answer: There is an annual cost for an A License of $500.00 for each type of license.

Type 1--Fire Sprinkler Systems.
Type 2--Engineered and Pre-engineered Fixed Extinguishing System.
Type 3--Standpipe Systems.

Question: Is occupancy classifications/building use versus sprinkler design/density part of the Title 19 inspection?

Answer: No. To correct inadequate levels of protection resulting from building alteration or remodeling, or a change in use is a function of the California Fire Code, 2007 Edition, § 901.4 Installation.

> ***California Fire Code, 2007 Edition, § 901.4 Installation****. "Fire protection systems shall be maintained in accordance with the original installation standards for that system. Required systems shall be extended, altered, or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to fire protection systems shall be done in accordance with applicable standards."*

This question was an issue with the original Title-19 criteria and continues with the NFPA-25 California Edition criteria. The basic premise of Title-19 and now

Title-19/NFPA-25, 2006 California Edition **is to insure that the system as originally designed, installed and approved will operate.**

SECTION-- 2 DIFFERENCES BETWEEN TITLE 19 CCR AND NFPA 25

Question: What are the differences for inspection, maintenance, and testing requirements between the old Title 19 and the recently state adopted NFPA 25, 2006 California Edition?

Answer:

• Title 19 contained less comprehensive requirements for the “maintenance” and “service” of sprinkler and standpipe systems.

• Title 19 did not cover private fire service mains, specifics on fire pumps, water tanks.

• NFPA 25, 2006 California edition changed the definitions to include a better define inspection, testing and maintenance. It establishes minimum requirements for a broad spectrum of water based fire protection systems. In addition to Inspection, Maintenance and Testing (ITM) requirements, this document also contains explanatory information on how to accomplish the various procedures along with the rationale behind the requirement. This document also addresses impairment handling and reporting in greater detail.

• NFPA 25, 2006 California edition permits an alternate ITM program (NFPA 25, Section 1.3, 2006 California edition) for businesses provided the alternate program is equivalent and approved by the local authority having jurisdiction (AHJ) where Title 19 did not. This is intended for large industrial concerns which have trained staff to conducting inspection, testing, and maintenance of fire protection systems.

• NFPA 25, 2006 California edition contains a chapter devoted to impairment procedures and Title 19 did not. This is necessary to minimize the risk to life and property when a fire protection system is taken out of service.

• The NFPA 25 workgroup endeavored to be sensitive to the increase in frequencies contained in the 2002 NFPA 25 over those found in Title 19, and still provide assurance that systems will be capable of performing as expected.

• The frequencies specified are generally more relaxed than those stipulated in NFPA 25 (but not entirely). California amendments reduced frequencies to inspection, testing and maintenance requirements found in the 2002 Edition of NFPA 25, and with few exceptions did not increase the frequencies found in the Chapter 5 of Title 19, California Code of Regulations.

In summary, the adoption of NFPA 25 provides a more comprehensive inspection, testing, and maintenance program. It provides additional detail and guidance above what was contained in Chapter 5 of Title 19, CCR.

SECTION 3—RECORDS OF INSPECTION, TESTING AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS

Question: What should be used when the original records for the main drain test, fire pump test, or standpipe test are not available?

Answer: The local AHJ must be consulted to determine the test requirements when the original records are not available.

Question: When performing ***inspections*** that do not require a license, is there a requirement to complete a form?

Answer: Yes. SFM forms (AES 1-AES 9) shall be used for any required *inspection*. *Inspection* forms are not required to be submitted to the AHJ. The records shall be maintained by the owner.

Question: Is a copy of the SFM form (AES 1-AES 9) required to be submitted to the fire AHJ after *testing and maintenance* is performed even if failures are noted?

Answer: Yes. The form(s) must be submitted to the fire AHJ each time *testing and maintenance* is conducted, even if the form indicates deficiencies.

Question: Is a copy of the SFM form (AES 1-AES 9) required to be submitted to the fire AHJ after all corrections are made and the label is ready to be applied to the riser?

Answer: Yes. When all corrections are made, a form must be submitted to the fire AHJ showing no deficiencies.

Question: How do I report the results of a standpipe flow test?

Answer: Report the results in the “Deficiencies and Comments” section at the end of the AES 3 form.

Question: How is the *inspection, testing, and maintenance* of small hose connections to be recorded?

Answer: Small hose connections that are attached to sprinkler systems are to be recorded on the AES 3 form.

Note: Class ll Standpipes are not considered small hose connections.

Question: When should Form AES 1 “Cover Sheet” be completed.

Answer: Form AES 1 “Cover Sheet” must be used whenever a form is used for inspection, testing, or maintenance of a water based fire protection system. It contains essential information regarding the contractor performing the work and as a summary of the work performed.

Example: If a building contains a fire sprinkler system, a standpipe system, and a fire pump, Form AES 1 would be completed with all sections completed including showing that Forms for a sprinkler system, standpipe, and fire pump are included. Form AES 1 will also indicate whether or not the various systems passed or failed. The forms for the sprinkler system (AES 2), standpipe system (AES 3), and fire pump (AES 5) are to be attached to Form AES 1.

Question: Can a local fire department choose to utilize inspection, testing, and maintenance records that are different than those specified in T-19?

Answer: No. Title 19, § 906.3(a) states

> ***Forms***
> *(a) The following forms in the format developed by the Office of the State Fire Marshal shall be used to record the results of all inspections, tests and maintenance of water-based fire protection systems.*

Question: Are local fire departments required to maintain a file of the testing documents that are sent to them?

Answer: No. It is not the intent of the Office of the State Fire Marshal to mandate the retention of automatic extinguishing system inspection records. It is the responsibility of the contractor, company, or licensee to provide a written report of the test and maintenance results to the building owner and the local fire authority having jurisdiction at the completion of the testing and maintenance. It is the responsibility of the building owner to retain the records.

> ***Title 19,* § 904.1. Inspection Requirements.** *Records of all inspections shall be retained on the premises by the building or system owner for a period of five years after the next required inspection.*

SECTION 4—SYSTEMS DESIGNED UNDER EARLIER EDITIONS OF NFPA 13

Question: What criteria should be used to conduct inspection, testing, and maintenance of a fire protection system that was installed under an older edition of an NFPA Standard?

Answer: CCR Title 19, § 904.2 (b) states:

> *(b)Any testing and maintenance of automatic fire extinguishing systems shall be performed in accordance with these regulations.*
>
> *EXCEPTIONS:*
>
> *1) The State Fire Marshal may waive in writing the requirement that testing and maintenance be performed in accordance with these regulations when a licensee can demonstrate that a system cannot functionally be tested and maintained in accordance with the requirements in these regulations.*
>
> *2) If at any time a licensee encounters a specialized or modified system which cannot be tested and maintained according to these regulations, the licensee shall contact the State Fire Marshal and test and maintain the system as directed.*
>
> *(A) The intent of this section is to cover automatic fire extinguishing systems as originally designed, installed and approved by the Authority Having Jurisdiction. It is not, however, intended to require that such systems be upgraded to current adopted standards.*

Note: Systems are required to be inspected, tested, and maintained based on the standard in effect at the time of installation. Systems are not required to be modified to be compliant with the current edition of an NFPA standard. Older editions of NFPA standards may be purchased from NFPA.

SECTION 5—CONDUCTING A BACK FLUSH OF THE FIRE DEPARTMENT CONNECTION (FDC)

Question: NFPA 25, 2006 California Edition Section 12.7.4 requires the FDC back flush to be conducted at “full flow”. What does full flow mean?

Answer: All valves that control the water supply to the FDC back flush must be open completely.

SECTION 6—INSPECTION, TESTING AND MAINTENANCE FO WATER BASED FIRE PROTECTION SYSTEMS

INSPECTION FREQUENCY CLARIFICATION

Question: Are there any requirements for inspection, testing, and maintenance of pressure maintenance (jockey) pumps?

Answer: Yes. NFPA 25 2006 California Edition Section 8.1.2 includes the pressure maintenance (jockey) pump as part of the fire pump assembly. Section 8.2 provides the requirements for the inspection of pump assemblies, Section 8.3 provides the requirements for the testing of pump assemblies, and Section 8.5 provides the requirements for the maintenance of pump assemblies.
Pressure maintenance (jockey) pumps shall be tested by starting the pressure maintenance (jockey) pump automatically by dropping pressure. The start and stop pressures should be noted in the "Deficiencies and Comments" section at the end of the form.

THE REQUIREMENTS FOR ALARM ACTIVATIONS WITHIN 90 SECONDS

Question: Can local fire departments perform annual maintenance and tests as a service to their business owners?

Answer: Yes. Title 19, § 904.2 (a) (1) states:

> ***Testing and Maintenance Requirements.***
> ***(1)*** *The State Fire Marshal may waive in writing licensing of fire departments which conduct fire sprinkler and standpipe system testing and maintenance.*

Question: Are Standpipe and Hose Systems and hydrant systems required to be tested on an annual basis, even if not a part of a sprinklered building?

Answer: Yes. Standpipe and Hose Systems require inspection, maintenance and testing as specified in Chapter 6, NFPA 25, 2006 California Edition. Hydrant

systems require inspection, maintenance and testing as specified in Chapter 7, NFPA 25, 2006 California Edition.

Question: Are sprinklers that are too far off the wall (some call them overextended) a deficiency?

Answer: No, Title 19, § 904.2 A states:

> ***§*** *904.2 (a) All testing and maintenance on automatic fire extinguishing systems in accordance with Health and Safety Code* § *13195 shall be performed by those licensed in accordance with Health and Safety Code* § *13196.5.*
> *Exceptions:*
> *(1) The State Fire Marshal may waive in writing licensing of fire departments which conduct fire sprinkler and standpipe system testing and maintenance.*

Question: Can a system with a water tank be certified if the owner does not want the tank inspected?

Answer: No. NFPA 25 section 4.5.1 states:

> *4.5.1All components and systems shall be tested in accordance with this standard*

Question: Can a system with a fire pump be certified if the owner does not want the fire pump tested?

Answer: No. NFPA 25 section 4.5.1 states:

> *4.5.1All components and systems shall be tested in accordance with this standard*

CHAPTER 7—MICROBIOLOGICALLY INFLUENCED CORROSION (MIC) IN FIRE SYSTEMS

NFPA 25 Handbook Commentaries and Questions

Chapter 13 <u>SUMMARY</u>

As indicated in Commentary Table 1.1, obstruction to water distribution accounts for 8.2 percent of system failures. This chapter provides obstruction investigation

procedures and guidance on preventing the occurrence of obstructions in fire protection systems. Each system should be evaluated to determine if the potential sources of obstruction in 13.2.2 exist. If any of those obstruction sources do exist, preventive measures should be taken. Such measures may include treatment for MIC, the installation of strainers to prevent the introduction of obstructing material, or more frequent inspection and testing.

Question. How often must an obstruction investigation be conducted?

Answer: An obstruction investigation must be conducted whenever any of the conditions listed in 13.2.2 are found. If the cause of the obstruction is not corrected, an obstruction investigation is required to be performed every five years.

Question: What four points of a system must be examined during an obstruction investigation?

Answer: Inspections must examine the interior of the system valve, riser, cross main, and branch line.

Question: What methods can be used to perform an obstruction investigation?

Answer: A visual examination may be conducted or alternative nondestructive examination methods such as ultrasound or the use of remote video cameras may be used.

Question: What should be done if tubercles or slime are found during an obstruction investigation?

Answer: A sample of the tubercule or slime shall be tested for indications of microbiologically influenced corrosion MIC.

Question: Is an “obstruction investigation” required every 5 years when performing testing and maintenance of a water based fire protection system?

Answer: No. An obstruction investigation is only required when one or more of the 14 conditions listed under NFPA 25, 2006 California edition Section 13.2.2 exist.

Question: Is MIC (microbiological intrusive corrosion) really a problem in California?

Answer: Yes. There are systems affected by Microbiological influenced Corrosion (MIC) in California. However, statistics do not indicate that MIC is a wide spread problem. (Please refer to the additional information found in **Annex D Obstruction Investigation**.)

SECTION 8--MISCELLANEOUS

Question: Are the changes in NFPA 25 2006 California Edition "performance based?"

Answer: No. The requirements found in Title 19/NFPA 25 are prescriptive in nature. This document instructs the reader in how, when, why, and how often specific inspection, testing and maintenance will be accomplished.