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## Attachment 9

**Date:** August 22, 2019

**To:** State Board of Fire Services

**From:** Caryn Petty, Deputy State Fire Marshal

### **SUBJECT/AGENDA ACTION ITEM:**

Fire Inspector 1 Professional Qualifications and Curriculum Update

### **Recommended Actions:**

Approval of the Updates to the Fire Inspector 1 Professional Qualifications and Curriculum Update

### **Background Information:**

In June 2018, the current Inspector 1 curriculum underwent evaluation and alignment with the 2014 edition of NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner by State Fire Training (SFT). A cadre was formed to review the changes and to determine if any other updates were required.

### **Analysis/Summary of Issue:**

In April 2019, the cadre met and offered curriculum feedback for necessary updates and revisions. After a complete review, there were no substantial changes (hours or cost for course delivery) to the curriculum.

- SFT is now using the primary NFPA Professional Qualification for the certification year (2014 for Inspector 1). This is to help SFT staff track editions.
- Document reference dates have been aligned to reflect a September 2019 implementation
- Task book Inspection Types were updated to reflect California Fire Code (R-2.1 replaced I-1)
- Some activities were modified to meet original intent
- Fire Inspector 1A is now the prerequisite for Fire Inspector 1B/1C/1D). Previously the student had to take the courses in order.

- No Task Book addendums are required between the 2010 edition of SFT Fire Inspector 1 and 2014 edition of Fire Inspector 1.
- State Fire Training updated all referenced documents (CIRM, Course Plan, Task Book, and CTS Guide) to reflect the revised implementation date of September 2019.

# FIRE INSPECTOR 1 (2014)

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## Certification Training Standards Guide



California Department of Forestry and Fire Protection  
Office of the State Fire Marshal  
State Fire Training

# Fire Inspector 1 (2014)

## Certification Training Standards Guide NFPA 1031 (2014) Fire Inspector 1 September 2019 Edition

This CTS guide utilizes NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014) to provide the qualifications for State Fire Training's Fire Inspector 1 certification.

State Fire Training coordinated the development of this CTS guide. Before its publication, the Statewide Training and Education Advisory Committee (STEAC) and the State Board of Fire Services (SBFS) recommended this CTS guide for adoption by the Office of the State Fire Marshal (OSFM).

Cover photo courtesy of Dennis Mathisen, Roseville Fire Department



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# State Fire Training

## **Mission**

To enable the California Fire Service to safely protect life and property through education, training, and certification.

## **The California Fire Service Training and Education System**

The California Fire Service Training and Education System (CFSTES) was established to provide a single statewide focus for fire service training in California. CFSTES is a composite of all the elements that contribute to the development, delivery, and administration of training for the California fire service. The authority for the central coordination of this effort is vested in the Training Division of the California State Fire Marshal's Office with oversight provided by the State Board of Fire Services.

CFSTES facilitates, coordinates, and assists in the development and implementation of standards and certification for the California fire service. CFSTES:

1. Administers the California Fire Academy System
2. Provides accredited courses leading to certification and approved standardized training programs for local and regional delivery
3. Administers the national accreditation process in California
4. Publishes certification training standards, course plans, and a capstone task book for each certified level in the California fire service

CFSTES is a fire service system developed by the fire service, for the fire service. It is only as successful and effective as the people involved in it.

## Acknowledgments

State Fire Training appreciates the hard work and accomplishments of those who built the solid foundation on which this program continues to grow.

State Fire Training gratefully acknowledges the following individuals and organizations for their diligent efforts and contributions that made the development and publication of this document possible.

### CAL FIRE

**Thom Porter**  
*Director, CAL FIRE*

**Mike Richwine**  
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**Andrew Henning**  
*Chief, State Fire Training*

**Ron Coleman**  
*Chair, STEAC*

### Cadre Leadership

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## Acknowledgments

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*Fire Marshal, San Marcos Fire Department*

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**Michael Mentink**

*Fire Marshal, Moraga-Orinda Fire Department*

**Ian Hardage**

*Assistant Fire Marshal, Santa Rosa Fire Department*



## How to Read a CTS Guide

State Fire Training develops a Certification Training Standards (CTS) Guide for a variety of job functions in the fire service such as firefighter, driver/operator, fire instructor, and company officer. The CTS guide lists the requisite knowledge and skills and the job performance requirements a person is expected to complete in order to become certified in a specific function. CTS guides are appropriate for fire service personnel and individuals in related occupations pursuing State Fire Training certification.

Each CTS guide serves as a foundation for the certification programs recommended for adoption by the Office of the State Fire Marshal. Any certification program must be based on job-related knowledge and measurable performance standards. To master the knowledge and skills needed for specialized operations, individuals will require additional training to augment the performance standards included in the CTS guide.

Within the CTS guide, it is impossible to capture the different policies and procedures of each organization in the California fire service. Individuals aspiring to meet State Fire Training's certification training standards must do so in accordance with the codes, standards, regulations, policies, and standard operating procedures applicable within their own departments or jurisdictions.

### **Format**

Each certification training standard included in the CTS guide includes the following:

#### **Section Heading**

The section heading describes a general category for a group of training standards. For example, the Fire Marshal CTS includes the following sections: Administration, Risk Management, Community Relations, Professional Development, Regulatory Programs, Fire and Life Safety, and Investigation. Each section contains one or more individual training standards.

#### **Training Standard Title**

The training standard title provides a general description of the performance requirement contained within the standard.

#### **Authority**

The CTS guide references each standard with one or more paragraphs of the corresponding National Fire Protection Association (NFPA) Professional Qualifications. This ensures that each fire service function within California's certification system meets or exceeds NFPA standards.

When California requirements exceed the NFPA standard, the CTS guide cites the Office of the State Fire Marshal as the authority and prints the corresponding information in *italics*.

### **Given**

This section lists the objects, equipment, materials, or facilities an individual needs in order to acquire the requisite knowledge and skills or to accomplish the job performance requirement(s) within a training standard.

### **Requisite Knowledge and Skills**

This section lists the knowledge and skills that an individual must acquire in order to accomplish the job performance requirement(s) within a training standard.

This section does not include NFPA requisite knowledge or skills that are too general to teach or that individuals should develop through life experiences. For example, a training standard would not list “communicate orally and in writing” or “ability to relate interpersonally” unless they specifically apply to a job performance requirement about acquiring communication skills or developing interpersonal relationships.

### **Job Performance Requirements**

This section includes one or more written statements that describe a specific job-related task and define measurable or observable outcomes. After an individual completes all coursework and requisite requirements, the capstone task book process verifies completion of job performance requirements.

## **Content**

In addition to the individual certification training standards, the CTS guide also includes State Fire Training Revisions and Errata pages.

### **State Fire Training Content**

Located at the back of the CTS guide, this table documents any significant revisions made by State Fire Training to the NFPA standards in the development of this CTS guide. This table is used to justify content additions and advise the course plan development team.

### **Errata**

Located at the back of the CTS guide, this page documents any changes made to the CTS guide outside of the five-year NFPA revision cycle.

# Fire Inspector 1

## Section 1: Definition of Duties

### 1-1: Definition of Duties for Fire Inspector 1

#### Authority

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2
  - Paragraph 4.3
2. *Office of the State Fire Marshal*

#### Given

1. Sections 4.2 and 4.3 of NFPA 1031 (2014)
2. *California Building Code, Chapter 7A, California Code of Regulations Title 24 (2016)*
3. *Ethical scenarios or case studies*

#### Requisite Knowledge and Skills

1. Identify the administrative duties of a Fire Inspector 1
  - Preparing correspondence and inspection reports
  - Handling complaints
  - Maintaining records
  - Participating in legal proceedings
  - Maintaining an open dialogue with the plan examiner and emergency response personnel
2. Identify the field inspection duties of a Fire Inspector 1
  - Conducting fire safety inspections of new and existing structures and properties for construction, occupancy, fire protection, and exposures
  - *Conducting fire safety inspections in the wildland urban interface environment*
3. *Identify the ethics that should govern a Fire Inspector 1's job performance*

#### Job Performance Requirements

There are no job performance requirements identified for this training standard.

## **Fire Inspector 1**

### Section 1: Definition of Duties

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## **1-2: Legal Responsibilities and Authority**

### **Authority**

1. *Office of the State Fire Marshal*

### **Given**

1. *California Health and Safety Code*
2. *California Code of Regulations Title 19*
3. *California Code of Regulations Title 24*

### **Requisite Knowledge and Skills**

1. *Identify the inspection authority in the California Health and Safety Code*
2. *Identify the regulatory requirements found in California Code of Regulations Titles 19 and 24*
3. *Identify the jurisdictional organizations other than the fire department that have requirements or conduct inspections related to fire prevention and life safety*
4. *Identify the jurisdictional organizations other than the fire department that have requirements or conduct inspections related to the wildland urban interface*
5. *Identify an authority having jurisdiction's liability for failure to perform*

### **Job Performance Requirements**

*Identify the codes that give a fire inspector legal authority to conduct inspections in the state of California.*

## **Section 2: Administration**

### **2-1: Preparing Inspection Reports**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.1
2. *Office of the State Fire Marshal*

#### **Given**

1. Agency policy and procedures
2. Observations from an assigned field inspection
3. *A sample inspection report or template*

#### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Identify* policies of the jurisdiction
3. *Recognize the common components of an inspection report*

#### **Job Performance Requirements**

Prepare clear and concise inspection reports that reflect the inspection findings in accordance with applicable codes and standards and jurisdictional policies.

## **2-2: Recognizing the Need for a Permit**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.2

### **Given**

1. A situation or condition

### **Requisite Knowledge and Skills**

1. *Identify* permit policies of the jurisdiction
2. *Identify* the rationale for the permit
3. Communicate permit requirements orally and in writing

### **Job Performance Requirements**

Recognize the need for a permit in order to communicate permit requirements in accordance with applicable codes and standards and jurisdictional policies.

## **2-3: Recognizing the Need for a Plan Review**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.3

### **Given**

1. A situation or condition

### **Requisite Knowledge and Skills**

1. *Identify* plan review policies of the jurisdiction
2. *Identify* the rationale for the plan review
3. Communicate plan review requirements orally and in writing

### **Job Performance Requirements**

Recognize the need for a plan review in order to communicate plan review requirements in accordance with applicable codes and standards and jurisdictional policies.

## **2-4: Investigating Common Complaints**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.4
2. *Office of the State Fire Marshal*

### **Given**

1. A reported situation or condition

### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Identify* policies of the jurisdiction
3. Apply codes and standards
4. Communicate complaint resolution orally and in writing
5. *Recognize whether or not a complaint addresses a violation of jurisdictional codes or standards*

### **Job Performance Requirements**

Investigate common complaints in a manner that records complaint information, initiates the process approved by the jurisdiction, and resolves the complaint.



## **2-5: Identifying Codes and Standards**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.5

### **Given**

1. A fire protection, fire prevention, or life safety issue

### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. Apply codes and standards to a fire protection, fire prevention, or life safety issue

### **Job Performance Requirements**

Identify the applicable codes or standards in order to reference the applicable documents, edition, and section.

## **2-6: Participating in Legal Proceedings**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.2.6

### **Given**

1. The findings of a field inspection or complaint
2. Consultation with legal counsel

### **Requisite Knowledge and Skills**

1. *Identify* legal requirements pertaining to evidence rules in the legal system
2. *Identify* types of legal proceedings
3. Maintain a professional courtroom demeanor
4. Differentiate facts from opinions

### **Job Performance Requirements**

Participate in legal proceedings with a professional demeanor, presenting all information.

## **Section 3: Field Inspection**

### **3-1: Identifying Occupancy Classification for a Single-use Occupancy**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.1

#### **Given**

1. A description of an occupancy and its use

#### **Requisite Knowledge and Skills**

1. *Recognize* occupancy classification types
2. *Identify* applicable codes, regulations, and standards adopted by the jurisdiction
3. *Identify* operational features
4. *Recognize* fire hazards presented by various occupancies

#### **Job Performance Requirements**

Identify the occupancy classification of a single-use occupancy in accordance with applicable codes and standards.

## **3-2: Computing Allowable Occupant Load of a Single-use Occupancy**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.2

### **Given**

1. A detailed description of the occupancy

### **Requisite Knowledge and Skills**

1. *Recognize* occupant load factors
2. Identify occupancy factors related to various occupancy classification
3. Calculate occupant loads
4. Use measuring tools
5. Make field sketches

### **Job Performance Requirements**

Compute the allowable occupant load of a single-use occupancy or portion thereof in accordance with applicable codes and standards.

### **3-3: Inspecting Means of Egress Elements**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.3

#### **Given**

1. Observations made during a field inspection of an existing building

#### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction related to means of egress elements
2. *Identify* occupancy egress requirements
3. *Identify* the relationship of fixed fire protection systems to egress requirements and to approved means of egress elements
4. Observe and recognize problems with egress elements
5. Make basic decisions related to means of egress

#### **Job Performance Requirements**

Inspect means of egress elements in order to verify the maintenance of egress elements in compliance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-4: Verifying Construction Type for an Addition or Remodel**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.4

#### **Given**

1. Field observations or a description of the project
2. A description of materials being used

#### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Identify* types of construction
3. *Identify* rated construction components
4. *Identify* accepted building construction methods and materials
5. Read plans

#### **Job Performance Requirements**

Verify the type of construction for an addition or remodel in order to identify and record the construction type in accordance with applicable codes and standards and jurisdictional policies.

## **3-5: Determining Operational Readiness of Fixed Fire Suppression Systems**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.5

### **Given**

1. Test documentation
2. Field observations

### **Requisite Knowledge and Skills**

1. *Identify* components and operation of fixed fire suppression systems
2. *Identify* codes and standards applicable to fixed fire suppression systems
3. Observe, recognize problems with, and make decisions about fixed fire suppression systems
4. Read test documentation and maintenance reports

### **Job Performance Requirements**

Determine the operational readiness of existing fixed fire suppression systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

## **3-6: Determining Operational Readiness of Existing Fire Detection and Alarm Systems**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.6

### **Given**

1. Test documentation
2. Field observations

### **Requisite Knowledge and Skills**

1. *Identify* the components and operation of fire detection and alarm systems and devices
2. *Identify* codes and standards applicable to fire detection and alarm systems and devices
3. Observe, recognize problems with, and make decisions about fire detection and alarm systems and devices
4. Read test documentation and maintenance reports

### **Job Performance Requirements**

Determine the operational readiness of existing fire detection and alarm systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policy.



### **3-7: Determining Operational Readiness of Portable Fire Extinguishers**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.7

#### **Given**

1. Field observations
2. Test documentation

#### **Requisite Knowledge and Skills**

1. *Identify* portable fire extinguishers, including their components and placement
2. *Identify* codes and standards applicable to portable fire extinguishers
3. Observe, recognize problems with, and make decisions about portable fire extinguishers
4. Read test documentation and maintenance reports

#### **Job Performance Requirements**

Determine the operational readiness of existing portable fire extinguishers in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

## **3-8: Recognizing Hazardous Conditions**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.8

### **Given**

1. Field observations

### **Requisite Knowledge and Skills**

1. *Identify* practices and techniques of code compliance inspections
2. *Recognize* basic fire behavior
3. *Identify* fire prevention practices
4. *Identify* ignition sources
5. *Identify* safe housekeeping practices
6. *Identify* the classification of hazardous materials
7. Observe, recognize problems with, and make decisions about hazardous conditions
8. Apply codes and standards to hazardous conditions

### **Job Performance Requirements**

Recognize hazardous conditions involving equipment, processes, and operations in order to verify that equipment is maintained and processes and operations are conducted in accordance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-9: Comparing Approved Plans and Existing Fire Protection Systems**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.9

#### **Given**

1. Approved plans
2. Field observations

#### **Requisite Knowledge and Skills**

1. *Identify* fire protection symbols and terminology associated with plans for fire protection systems
2. Read and comprehend plans for fire protection systems
3. Observe, recognize problems with, and make decisions about existing fire protection systems
4. Apply codes and standards applicable to fire protection systems

#### **Job Performance Requirements**

Compare an approved plan to an existing fire protection system in order to identify, document, and report any modifications to the system in accordance with applicable codes and standards and jurisdictional policies.

## **3-10: Verifying Emergency Planning and Preparedness Measures**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.10

### **Given**

1. Field observations
2. Copies of emergency plans
3. Records of exercises

### **Requisite Knowledge and Skills**

1. *Identify* requirements related to emergency evacuation drills required within the jurisdiction
2. *Identify* ways to conduct and/or evaluate fire drills in various occupancies
3. *Recognize* human behavior commonly exhibited during fires and other emergencies
4. Identify the emergency evacuation requirements contained in the applicable codes and standards
5. Interpret plans and reports

### **Job Performance Requirements**

Verify that emergency planning and preparedness measures are in place and practiced in accordance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-11: Inspecting Emergency Access for an Existing System**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.11

#### **Given**

1. Field observations

#### **Requisite Knowledge and Skills**

1. *Identify* codes and standards applicable to emergency access
2. *Identify* policies of the jurisdiction applicable to emergency access
3. *Describe* emergency access and accessibility requirements
4. *Locate* emergency access requirements contained in the applicable codes and standards
5. Observe, recognize problems with, and make decisions about emergency access

#### **Job Performance Requirements**

Inspect emergency access for an existing system in order to ensure maintenance of the required access for emergency responders, and identify, document, and correct deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-12: Verifying Code Compliance for Incidental Storage, Handling, and Use of Flammable and Combustible Liquids and Gases**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.12
2. *Office of the State Fire Marshal*

#### **Given**

1. Field observations
2. Inspection guidelines from the jurisdiction

#### **Requisite Knowledge and Skills**

1. *Identify* the classification of incidental amounts of flammable and combustible liquids and gases
2. *Identify* the properties of incidental amounts of flammable and combustible liquids and gases
3. *Identify* the labeling requirements of incidental amounts of flammable and combustible liquids and gases
4. *Identify* the storage requirements of incidental amounts of flammable and combustible liquids and gases
5. *Identify* the handling requirements of incidental amounts of flammable and combustible liquids and gases
6. *Identify* the use of incidental amounts of flammable and combustible liquids and gases
7. Observe, recognize problems with, and make decisions about incidental amounts of flammable and combustible liquids and gases
8. Apply codes and standards applicable to incidental amounts of flammable and combustible liquids and gases

#### **Job Performance Requirements**

Verify code compliance for incidental storage, handling, and use of flammable and combustible liquids and gases in order to address applicable codes and standards and identify, document, *and report* deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-13: Verifying Code Compliance for Incidental Storage, Handling, and Use of Hazardous Materials**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.13

#### **Given**

1. Field observations

#### **Requisite Knowledge and Skills**

1. *Identify* the classification of hazardous materials
2. *Identify* the properties of hazardous materials
3. *Identify* the labeling requirements of hazardous materials
4. *Identify* the transportation requirements of hazardous materials
5. *Identify* the storage requirements of hazardous materials
6. *Identify* the handling requirements of hazardous materials
7. *Identify* the use of hazardous materials
8. Observe, recognize problems with, and make decisions about hazardous materials
9. Apply codes and standards applicable to hazardous materials

#### **Job Performance Requirements**

Verify code compliance for incidental storage, handling, and use of hazardous materials in order to address applicable codes and standards for each hazardous material encountered and identify, document, and report each deficiency in accordance with applicable codes and standards and jurisdictional policies.

### **3-14: Recognizing a Hazardous Fire Growth Potential in a Building or Space**

#### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.14

#### **Given**

1. Field observations

#### **Requisite Knowledge and Skills**

1. *Identify* the flame spread and smoke development ratings of contents, interior finishes, building construction elements, decorations, decorative materials, and furnishings
2. *Identify* safe housekeeping practices related to hazardous fire growth potential
3. Observe and make decisions about fire growth potential
4. Apply codes and standards related to hazardous fire growth potential
5. Recognize hazardous conditions

#### **Job Performance Requirements**

Recognize a hazardous fire growth potential in a building or space in order to identify, document, and report hazardous conditions in accordance with applicable codes and standards and jurisdictional policies.



## **3-15: Verifying Fire Flows**

### **Authority**

1. NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014)
  - Paragraph 4.3.16

### **Given**

1. Fire flow test results
2. Water supply data

### **Requisite Knowledge and Skills**

1. *Identify* types of water distribution systems and other water sources in the local community
2. *Identify* water distribution system testing processes
3. *Identify* characteristics of public and private water supply systems
4. *Identify* flow testing procedures
5. Use Pitot tubes, gauges, and other data-gathering devices
6. Calculate and graph fire flow results

### **Job Performance Requirements**

Verify that fire flows for a site are in accordance with applicable codes and standards and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

## **3-16: Inspecting Tents, Canopies, and Temporary Membrane Structures**

### **Authority**

1. *Office of the State Fire Marshal*

### **Given**

1. *Applicable codes and standards*
2. *Applicable jurisdictional policies*

### **Requisite Knowledge and Skills**

1. *Define the following terms: tent, canopy, temporary membrane structure*
2. *Identify the state requirements for tents, canopies and other temporary membrane structures (10 persons or greater)*
3. *Identify when the California Building Code regulates a tent, canopy or membrane structure*
4. *Observe, recognize problems with, and make decisions about tents, canopies, and temporary membrane structures*
5. *Apply codes and standards related to fireworks storage and display*

### **Job Performance Requirements**

*Inspect a tent, canopy, or temporary membrane structure to verify that it complies with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.*

### **3-17: Inspecting Safe and Sane Fireworks Retail Stands**

#### **Authority**

1. *Office of the State Fire Marshal*

#### **Given**

1. *Applicable codes and standards*
2. *Applicable jurisdictional policies*

#### **Requisite Knowledge and Skills**

1. *Identify fireworks classifications*
2. *Identify codes and standards applicable to fireworks storage, display, and transportation*
3. *Describe types of licenses and permits required for fireworks storage and display*
4. *Observe, recognize problems with, and make decisions about fireworks storage and display*
5. *Apply codes and standards related to fireworks storage and display*

#### **Job Performance Requirements**

*Inspect a "Safe and Sane" fireworks stand to verify that the fireworks display and storage comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.*

### **3-18: Inspecting a Public Fireworks Display**

#### **Authority**

1. *Office of the State Fire Marshal*

#### **Given**

1. *Applicable codes and standards*
2. *Applicable jurisdictional policies*

#### **Requisite Knowledge and Skills**

- *Identify codes and standards applicable to public fireworks displays*
- *Describe types of licenses and permits required for public fireworks displays*
- *Describe fire and life safety aspects related to public fireworks displays*
- *Observe, recognize problems with, and make decisions about public fireworks displays*
- *Apply codes and standards related to public fireworks displays*

#### **Job Performance Requirements**

*Inspect a public fireworks display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.*

### **3-19: Inspecting Proximate Fireworks or Special Effects Displays**

#### **Authority**

1. *Office of the State Fire Marshal*

#### **Given**

1. *Applicable codes and standards*
2. *Applicable jurisdictional policies*

#### **Requisite Knowledge and Skills**

- *Identify codes and standards applicable to proximate fireworks or special effects displays*
- *Describe types of licenses and permits required for proximate fireworks or special effects displays*
- *Describe fire and life safety aspects related to proximate fireworks or special effects displays*
- *Observe, recognize problems with, and make decisions about proximate fireworks or special effects displays*
- *Apply codes and standards related to proximate fireworks or special effects displays*

#### **Job Performance Requirements**

*Inspect a proximate fireworks or special effects display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.*

## **Section 4: Wildland Urban Interface Environments**

### **4-1: Inspecting Exterior Hazards Abatement**

#### **Authority**

1. *Office of the State Fire Marshal*

#### **Given**

1. *Applicable codes and standards*
2. *Jurisdictional policies*

#### **Requisite Knowledge and Skills**

1. *Describe the wildland urban interface environment*
2. *Identify the history of fire in the wildland urban interface environment*
3. *Describe the consequences of severe wildland fire conditions on unmitigated wildland urban interface areas*
4. *Identify factors impacting wildland fire behavior*
5. *Define fire hazard severity zone classifications*
6. *Describe methods for dealing with fire hazards associated with wildland urban interface environment*
7. *Describe the components of a vegetation management plan*
8. *Observe, recognize problems with, and make decisions about exterior hazard abatement*
9. *Apply codes and standards related to wildland urban interface environments*

#### **Job Performance Requirements**

*Inspect exterior hazards abatement on an existing property in order to verify compliance with applicable codes and standards, and identify, document, and report deficiencies and mitigation measures in accordance with applicable codes and standards and jurisdictional policies.*

# State Fire Training Content

## Code Key

### Blocks

- G = Given
- RKS = Requisite Knowledge and Skills
- JPR = Job Performance Requirements
- NCTS = New certification training standard

## Certification: Fire Inspector 1

CTS	Block	Addition	Justification	Source/Reference
1-1	RKS	Conducting fire safety inspections in the wildland urban interface environment	This task is not included in NFPA 1031 but is required by California law.	<ul style="list-style-type: none"> <li>• California Code of Regulations, Title 24, Chapter 7A (2016)</li> <li>• Public Resources Code Section 4291</li> </ul>
1-1	G	Chapter 7A of California Code of Regulations Title 24 (2016)	This task is not included in NFPA 1031 but is required by California law.	<ul style="list-style-type: none"> <li>• California Code of Regulations, Title 24, Chapter 7A (2016)</li> <li>• Public Resources Code Section 4291</li> </ul>
1-2	NCTS	Legal Responsibilities and Authority	Cadre believes it is vital for a Fire Inspector to be able to identify the California codes grant authority to his or her position.	<ul style="list-style-type: none"> <li>• California Health and Safety Code</li> <li>• California Code of Regulations Title 19</li> <li>• California Code of Regulations Title 24</li> </ul>
2-1	RKS	Recognize the common components of an inspection report	When the student prepares a report (see JPR), he or she must understand content.	N/A
2-1	G	A sample inspection report or template	When the student prepares a report (see JPR), he or she must understand content.	N/A

**State Fire Training Content**

<b>CTS</b>	<b>Block</b>	<b>Addition</b>	<b>Justification</b>	<b>Source/Reference</b>
2-4	RKS	Recognize whether or not a complaint addresses a violation of jurisdictional codes or standards	The NFPS requisite skill “recognize problems” didn’t provide enough detail.	N/A
3-12	JPR	Added /and report/.	All of the other JPRs that include /identify/ and /document/ also include /and report/. Added for consistency with all other deficiency-related JPRs.	N/A
3-16	NCTS	Inspecting Tents, Canopies, and Temporary Membrane Structures	This responsibility is not included in NFPA 1031, but is required of a Fire Inspector in California.	California Code of Regulations, Title 19, Division 1, Chapter 2, Article 3
3-17	NCTS	Inspecting Safe and Sane Fireworks Retail Stands	This responsibility is not included in NFPA 1031, but is required of a Fire Inspector in California if this activity occurs within his or her jurisdiction.	California Code of Regulations, Title 19, Division 1, Chapter 6.
3-18	NCTS	Inspecting a Public Fireworks Display	This responsibility is not included in NFPA 1031, but is required of a Fire Inspector in California if this activity occurs within his or her jurisdiction.	California Code of Regulations, Title 19, Division 1, Chapter 6.
3-19	NCTS	Inspecting Proximate Fireworks or Special Effects Displays	This responsibility is not included in NFPA 1031, but is required of a Fire Inspector in California if this activity occurs within his or her jurisdiction.	California Code of Regulations, Title 19, Division 1, Chapter 6.
4-1	NCTS	Requirements for Wildland-Urban Interface Fire Areas (Hazardous Vegetation and Fuel Management)	This responsibility is not included in NFPA 1031, but is required of a Fire Inspector in California.	International Code Council (2016) and California Fire Code (2016)



### **Additional Notes**

The cadre has removed NFPA 1031 Section 4.3.15 from this CTS guide. The job performance requirement contained in 4.3.15 (Determine code compliance, given the codes, standards, and policies of the jurisdiction and a fire protection issue, so that the applicable codes, standards, and policies are identified and compliance is determined) is already completed throughout the other standards included in this CTS guide under specific circumstances.

## Errata

### Code Key

#### Blocks

- G = Given
- RKS = Requisite Knowledge and Skills
- JPR = Job Performance Requirements
- NCTS = New certification training standard

#### Changes

- New text show in underline
- Deleted text shown in ~~strikeout~~

Not Applicable

## Certification History

### September 2019

The September 2019 changes reflect updates based upon the 2014 edition of NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner. There were no changes found within Chapter 4 Fire Inspector 1. Several editorial changes were made as well as updating the edition of NFPA 1031. The following SFT documents were updated:

- Certification Training Standards Guide (CTS) Guide
- Course Plans
- Activities
- Task Book

### October 2010

In October 2010, SFT released the new Fire Inspector 1 curriculum and certification as a replacement for Fire Prevention Officer certification. The certification was based off the 2009 edition of NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner*. Through the contract with California State University, Sacramento, Department of Continuing Education, a development cadre was formed with fire service personnel representing organizations throughout the state.

**CALIFORNIA  
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**TRAINING**

# Duties and Administration

## Course Plan

### Course Details

<b>Certification:</b>	Fire Inspector 1
<b>CTS Guide:</b>	Fire Inspector 1 Certification Training Standard (2014)
<b>Description:</b>	This course provides students with a basic knowledge of the roles and responsibilities of a Fire Inspector 1 including legal responsibilities and authority, codes and standards, the inspection process, confidentiality and privacy requirements, and ethical conduct, and administrative tasks including preparing inspection reports, recognizing the need for a permit or plan review, investigating common complaints, and participating in legal proceedings.
<b>Designed For:</b>	Entry-level Inspector
<b>Prerequisites:</b>	None
<b>Standard:</b>	Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
<b>Hours:</b>	Lecture: 16:45 Activities: 4:45 Testing: 2:30
<b>Hours (Total):</b>	24:00
<b>Maximum Class Size:</b>	30
<b>Instructor Level:</b>	Primary Instructor
<b>Instructor/Student Ratio:</b>	1:30
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES

### Required Resources

## Instructor Resources

To teach this course, instructors need:

- California Building Code  
(International Code Council, current edition)
- California Code of Regulations (CCR) Title 19  
(Office of Administrative Law, <https://oal.ca.gov/>)
- California Fire Code  
(International Code Council, current edition)
- Ethical Practices Inventory  
(The Williams Institute, [www.ethics-twi.org](http://www.ethics-twi.org))

Reference manual options:

- *Fire Inspection and Code Enforcement Instructor Resource Kit*  
(IFSTA, 8th edition)

Or the combination of the following:

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, Jones & Bartlett Learning,  
ISBN: 9781284137743)
- *Fire Inspector: Principles and Practice Instructor's ToolKit* CD-ROM  
(International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning,  
ISBN: 9781284095654)

## Online Instructor Resources

The following instructor resources are available online at  
<http://osfm.fire.ca.gov/training/resources>:

- Activity 2-6: Core Values
- Activity 3-2: Fire Code Permit Types
- Course plan
- Website

## Student Resources

To participate in this course, students need:

- California Fire Code  
(International Code Council, current edition)

Reference manual options:

- *Fire Inspection and Code Enforcement*  
(IFSTA, 8th edition, ISBN: 9780879396053)

Or

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, ISBN: 9780763798574)

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## Unit 1: Introduction

### Topic 1-1: Orientation and Administration

#### Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

#### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
  - Activities
  - Required student resources
  - Class participation requirements

#### Discussion Questions

1. What is a formative test? What is a summative test?

#### Activities

1. To be determined by the instructor.

### Topic 1-2: Fire Marshal Certification Process

#### Terminal Learning Objective

At the end of this topic, a student will be able to identify different levels in the Fire Marshal certification track and the courses and requirements for Fire Inspector 1 certification, and be able to describe the capstone task book and testing process.

#### Enabling Learning Objectives

1. Identify the different levels of certification in the Fire Inspector certification track
  - Fire Inspector 1

## Fire Inspector 1A

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- Fire Inspector 2
- 2. Identify the other Fire Prevention certification tracks
  - Plan Examiner
  - Fire Marshal
- 3. Identify the courses required for Fire Inspector 1
  - Fire Inspector 1A: Duties and Administration
  - Fire Inspector 1B: Fire and Life Safety
  - Fire Inspector 1C: Field Inspection
  - Fire Inspector 1D: Field Inspection – California Specific
- 4. Identify any other requirements for Fire Inspector 1
  - Hazardous Materials First Responder Awareness/Awareness Terrorism course
  - PC-832 Arrest, Search, and Seizure
- 5. Describe the capstone task book process
  - Complete all prerequisites and course work
  - Submit application and fees to request capstone task book
    - Must be employed by a California Fire Agency as a Fire Inspector
  - Complete all job performance requirements included in the task book
  - Must have identified evaluator verify individual task completion via signature
  - Must have Fire Chief or authorized representative verify task book completion via signature
- 6. Describe the capstone testing process
  - Complete coursework
  - Schedule online capstone test
  - Schedule skills evaluation test

### Discussion Questions

1. How many levels are there in the Fire Marshal certification track? What are they?

### Activities

1. To be determined by the instructor.

## Unit 2: Roles and Responsibilities

### Topic 2-1: Definition of Duties

#### Terminal Learning Objective

At the end of this topic, a student given Sections 4.2 and 4.3 of NFPA 1031 (2014) and Chapter 7A of California Code of Regulations Title 24 (2010) will be able to identify the administrative and field inspection duties of a Fire Inspector 1 on a summative exam.

#### Enabling Learning Objectives

1. Identify the administrative duties of a Fire Inspector 1
  - Prepare correspondence and inspection reports
  - Handle complaints
  - Maintain records



## Fire Inspector 1A

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- Participate in legal proceedings
  - Maintain an open dialogue with the plan examiner and emergency response personnel
2. Identify the field inspection duties of a Fire Inspector 1
    - Conducting fire safety inspections of new and existing structures and properties for construction, occupancy, fire protection, and exposures
    - Conducting fire safety inspections in the wildland urban interface environment

### Discussion Questions

1. What are some of the duties of the Fire Inspector 1?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 1-1

## Topic 2-2: Identifying Legal Responsibilities and Authority

### Terminal Learning Objective

At the end of this topic, a student given the California Health and Safety Code and the California Code of Regulations Titles 19 and 24 will be able to identify the codes that give a fire inspector legal authority to conduct inspections in the state of California.

### Enabling Learning Objectives

1. Identify the inspection authority in the California Health and Safety Code
  - 13145
  - 13146
  - 13143
  - 17921
2. Identify the regulatory requirements found in:
  - California Code of Regulations (CCR) Title 19 (Public Safety)
  - CCR Title 24 part 2 (Building Code)
  - CCR Title 24 part 2.5 (Residential Code)
  - CCR Title 24 part 9 (Fire Code)
  - Local adoption and enforcement authority
3. Identify the jurisdictional organizations other than the fire department that have requirements or conduct inspections related to fire prevention and life safety, including:
  - Building department
  - Planning department
  - Public works engineering
  - Water department
  - Law enforcement
  - Division of Occupational Safety and Health (elevators)
  - Office of Statewide Health Planning and Development (OSHPD) (hospitals)
  - Division of the State Architect (DSA) (public schools)

4. Identify the additional jurisdictional organizations that have requirements or conduct inspections relating to the wildland urban interface environment, including:
  - Other local fire agencies
  - CAL FIRE
  - U.S. Forest Service
  - Bureau of Land Management
  - Park Service (state or federal)
  - Department of Fish and Game
  - California Coastal Commission
  - Fire Safe Council
5. Identify an AHJ's liability for failure to perform
  - Ministerial actions
  - Discretionary actions
  - *Widmar vs. Marysville* (fire = 1974 / resulting law = 1984)

### Discussion Questions

1. To what level can a fire inspector be held liable for negligence?
2. What occupancies does the state regulate?

### Activities

1. Given a list of different occupancies, identify who does the inspection; what document gives that agency inspection authority; and the required inspection frequency.

**CTS Guide Reference:** CTS 1-2

## Topic 2-3: Identifying Codes and Standards

### Terminal Learning Objective

At the end of this topic, a student given a fire protection, fire prevention, or life safety issue will be able to identify the applicable codes or standards in order to reference the applicable documents, edition, and section.

### Enabling Learning Objectives

1. Identify commonly-used codes and standards published by:
  - International Code Council (ICC codes)
  - National Fire Protection Association (NFPA standards)
2. Identify codes and standards adopted as part of California Code of Regulations Title 24 by the California Building Standards Commission, including:
  - California Building Code (part 2)
  - California Residential Code (part 2.5)
  - California Fire Code (part 9)
3. Identify other codes and standards adopted in California as part of California Code of Regulations Title 24, including:
  - California Electrical Code (part 3)
  - California Mechanical Code (part 4)
  - California Plumbing Code (part 5)

- California Energy Code (part 6)
  - California Elevator Safety Construction Code (part 7)
  - California Historical Building Code (part 8)
  - California Code for Building Conservation (part 10)
  - California Reference Standards Code (part 12)
4. Identify statutes that relate to fire protection and life safety, including:
    - California Government Code (GC)
    - California Health and Safety Code (HSC)
    - California Public Resources Code (PRC)
  5. Identify applicable codes and standards adopted by the jurisdiction
  6. Apply codes and standards to a fire protection, fire prevention, or life safety issue

### Discussion Questions

1. What is the difference between a statute and a regulation?

### Activities

1. Given a list of fire protection, fire prevention, or life safety issues, ask students to reference a code or standard that addresses the issue. Students should document the publication name, edition, and section that contains the identified code or standard.

**CTS Guide Reference:** CTS 2-5

## Topic 2-4: The Inspection Process

### Terminal Learning Objective

At the end of this topic, a student given an occupancy will be able to conduct a fire and life safety inspection in accordance with jurisdictional policies.

### Enabling Learning Objectives

1. Describe the need for inspections, including:
  - Enhance fire and life safety
  - Reduce community risk
  - Improve firefighter safety
2. Describe preparations for an inspection, including:
  - Reviewing past records
  - Reviewing last inspection date
  - Reviewing past violations and compliance
  - Gathering necessary records or checklists
  - Gathering safety equipment and clothing appropriate for the inspection conditions
  - Making an inspection appointment if necessary
3. Describe the physical inspection process, including:
  - Making introductions and stating inspection purpose
  - Gaining right of entry (voluntary)
  - Obtaining an inspection warrant (if owner refuses entry)
  - Verifying the occupancy
  - Determining if there is a change of use or occupancy

- Inspecting the building in an orderly manner (systematic approach)
  - Inspecting operational and hazardous processes
  - Reviewing inspection findings and compliance requirements with occupant
4. Describe methods for obtaining prescriptive and performance-based code compliance, including:
- Education
    - Explain the benefits of code compliance
    - Teach the building/property owner throughout the inspection process to achieve behavior modification
    - Motivate self-regulation and compliance because the building/property owner now understands the value of compliance
  - Engineering
    - Alternate means and methods
  - Enforcement
    - Inspection warrants
    - Appeals
5. Describe how to document and report an inspection, including:
- Identifying document template types, including:
    - Notices of violation
    - Notice and orders
    - Occupancy-specific violation checklists
  - Writing the report which may include:
    - Violations observed
    - Corrective action
    - Time allowed for compliance
    - Code sections (if applicable)
  - Ensuring proper documentation, accuracy, and completeness
    - Use clear writing, and proper grammar and spelling
    - Identify premise, owner, and contact information
    - Identify violations, code sections cited, and descriptions
    - Identify applicable codes and standards
    - Identify a timeframe for violation compliance
    - Identify penalties for failure to correct violations
    - Realize that others will read and use your documents
    - Realize that initial inspection reports can become part of a legal process
  - Distributing and retaining the inspection report
6. Describe the inspection report follow-up process, including:
- Documenting remaining violations and issuing additional notices of violation as necessary
  - Re-inspection to confirm violation correction
  - Documentation to verify compliance with violations
7. Describe how to document violations:

## Fire Inspector 1A

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- Require immediate compliance for imminent hazards
- Allow 15-30 days for compliance after first inspection for standard violation
- Allow 15-30 days after re-inspection for standard violations
- Take legal action in conformance with agency requirements for failure to comply

### Discussion Questions

1. What are the advantages of a checklist?
2. What are the disadvantages of a checklist?
3. When should an inspector provide a verbal notice of a hazard and not document the violation?
4. What documents should an inspector review prior to the inspection?
5. What are the different aspects of education, engineering, and enforcement?
6. What components are necessary to justify an inspection warrant?
7. Discuss case law established through *See vs. Seattle* (1967).

### Activities

1. Perform an inspection using the classroom building or nearby facility to identify violations (i.e. the instructor may need to simulate violations)

CTS Guide Reference: None

## Topic 2-5: Confidentiality and Privacy Requirements

### Terminal Learning Objective

At the end of this topic, a student given jurisdictional confidentiality and privacy policies will be able to adhere to applicable confidentiality and privacy requirements throughout the inspection process.

### Enabling Learning Objectives

1. Describe how to obtain agency policies on which records are considered public records
2. Describe a company's right to maintain trade secrets (processes and ingredients/components)
3. Describe how documents related to active inspections and code violations must remain confidential without specific court orders if a violation may result in legal action

### Discussion Questions

1. When is an inspection history confidential?
2. What information should remain unavailable to the public?

### Activities

1. To be determined by the instructor.

CTS Guide Reference: None

## Topic 2-6: Ethical Conduct

### Terminal Learning Objective

At the end of this topic, a student given ethical scenarios will be able to carry out his or her responsibilities in an ethical manner.

### Enabling Learning Objectives

1. Define the terms "ethics" and "core values"

## Fire Inspector 1A

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2. Describe how one's ethics and core values impact the work environment
3. Describe the ethical aspects of:
  - Code enforcement
  - Gifts and gratuities
  - Professional decorum
4. Describe decision-making models and systems

### Discussion Questions

1. When is it acceptable to receive a "gift" during a fire inspection?
2. From an ethics perspective, if the inspector knows the business operator or owner personally, what practical steps should he or she take when conducting an inspection?

### Activities

1. Activity 2-6: Core Values
2. Complete one of the following:
  - a. Ethical Awareness Inventory
  - b. Develop several scenarios and have students discuss the ethical aspects of each. At the end of the activity the groups will present their response to the class. For example, these can include:
    - i. Raffle prizes for a community meeting
    - ii. Not reporting a code violation
    - iii. Being offered gifts or gratuities (i.e. drinks or lunch) during an inspection
    - iv. Favoritism

CTS Guide Reference: CTS 1-1

## Unit 3: Administration

### Topic 3-1: Preparing Inspection Reports

#### Terminal Learning Objective

At the end of this topic, a student given agency policy and procedures, observations from an assigned field inspection, and a sample inspection report or template, will be able to prepare clear and concise inspection reports that reflect the inspection findings in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify policies of the jurisdiction related to inspection reports
2. Recognize the common components of an inspection report

#### Discussion Questions

1. What are the critical components of an inspection report?

#### Activities

- ~~1. Given the findings of an inspection, have students prepare an inspection report.~~
2. In small groups (less than 4) have each group write an inspection report on the violations found in Activity 2-4.

**CTS Guide Reference:** CTS 2-1

### Topic 3-2: Recognizing the Need for a Permit

#### Terminal Learning Objective

At the end of this topic, a student given a situation or condition will be able to recognize the need for a permit and communicate permit requirements in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify permit policies of the jurisdiction
2. Identify the rationale for the permit
3. Identify situations and conditions requiring permits
  - Construction permits
  - Operational permits
  - Permit thresholds
4. Communicate permit requirements orally and in writing

#### Discussion Questions

1. What are examples of operational permits in your local community?
2. What types of construction permits does the California Fire Code regulate?

#### Activities

1. Activity 3-2: Fire Code Permit Types

**CTS Guide Reference:** CTS 2-2

### Topic 3-3: Recognizing the Need for Plan Review

#### Terminal Learning Objective

At the end of this topic, a student given a situation or condition will be able to recognize the need for plan review and communicate plan review requirements in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify plan review policies of the jurisdiction
2. Identify the rationale for a plan review
  - Documenting proposed activities for construction or modifications (tenant improvement) to a location regulated by the California Building Code and/or California Fire Code
  - Identifying the project designer and installer
  - Discovering discrepancies or omissions in the design that must be changed prior to project approval
  - Ensuring compliance with applicable codes, standards, and practices
  - Approving a construction project or a process
  - Issuing a permit for an activity or process
3. Communicate plan review requirements orally and in writing
4. Describe the activities that would require a plan submittal
  - New construction

## Fire Inspector 1A

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- Modifications to an existing structure (including tenant improvements)
- Change of occupancy
- Change in operational use

### Discussion Questions

1. What is the primary purpose of plan review?
2. What activities do not require a plan submittal or review?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 2-3

## Topic 3-4: Investigating Common Complaints

### Terminal Learning Objective

At the end of this topic, a student given a reported situation or condition will be able to investigate common complaints in a manner that records complaint information, initiates the process approved by the jurisdiction, and resolves the complaint.

### Enabling Learning Objectives

1. Identify policies of the jurisdiction related to complaints
2. Apply codes and standards
3. Describe the complaint resolution process
  - Receive and document a complaint
  - Check records for similar violations
  - Validate a complaint (inspection vs. records search)
  - Maintain complainant confidentiality
4. Recognize whether or not a complaint addresses a violation of jurisdictional codes or standards
5. Communicate complaint resolution orally and in writing
  - Determine the appropriate agency to act on the complaint
  - Refer a complaint to the appropriate agency
  - Act on a complaint
  - Issue a notice of violation for a validated complaint
  - Follow up to confirm compliance
6. Describe the influences of political pressure on complaint resolution

### Discussion Questions

1. How would you prioritize a complaint received?
2. How would you respond to a non-fire hazard complaint?
3. What types of complaints would an inspector refer to another agency or department?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 2-4

## Topic 3-5: Participating in Legal Proceedings



### Terminal Learning Objective

At the end of this topic, a student given the findings of a field inspection or complaint and consultation with legal counsel will be able to participate in legal proceedings with a professional demeanor, presenting all information.

### Enabling Learning Objectives

1. Identify common terminology used in legal proceedings, including:
  - Case filing (agency initiation)
  - Deposition
  - Expert testimony
  - Indirect documents (emails, phone records, etc.)
  - Judgment
  - Subpoena (external initiation)
  - Testimony
2. Identify types of legal proceedings
  - Criminal
  - Civil
3. Identify legal requirements pertaining to evidence rules in the legal system
4. Describe how to maintain a professional courtroom demeanor, including:
  - Wearing appropriate attire
  - Being well groomed
  - Using a professional tone of voice
  - Restraining unnecessary body language
  - Maintaining direct eye contact
  - Maintaining a professional attitude (argumentative vs. pleasant)
  - Answering all questions truthfully
  - Allowing objection time between question and answer
  - Avoiding volunteering information
  - Moderating reactions to questions and activities during testimony
5. Identify how to differentiate facts from opinions
  - Identify facts as documentation, including:
    - Physical evidence
    - Photographs
    - Witness statements
    - First responder statements
  - Identify opinions as not admissible, including:
    - Personal biases
    - Hearsay
    - Irrelevant statements
    - Exception: The opinion of an expert witnesses can be admissible

### Discussion Questions

1. When should a fire inspector seek legal counsel?
2. Who should be notified if a fire inspector receives a subpoena?

3. During a deposition, should a fire inspector make statements without legal counsel present?
4. What are examples of facts as related to a fire inspection?
5. What are examples of opinions that should not influence a case?
6. When should a fire inspector give an opinion?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 2-6

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**Time Table**

Segment	Lecture Time	Activity Time	Total Unit Time
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration			
Lecture	00:30		
Activity 1-1: To be determined by instructor		00:00	
Topic 1-2: Fire Marshal Certification Process			
Lecture	00:30		
Activity 1-2: To be determined by instructor		00:00	
<b>Unit 1 Totals</b>	<b>1:00</b>	<b>00:00</b>	<b>1:00</b>
<b>Unit 2: Roles and Responsibilities</b>			
Topic 2-1: Definition of Duties			
Lecture	00:30		
Activity 2-1: To be determined by instructor		00:00	
Topic 2-2: Identifying Legal Responsibilities and Authority			
Lecture	2:30		
Activity 2-2: See suggested activity		00:30	
Topic 2-3: Identifying Codes and Standards			
Lecture	1:30		
Activity 2-3: See suggested activity		00:30	
Topic 2-4: The Inspection Process			
Lecture	3:30		
Activity 2-4: See suggested activity		1:00	
Topic 2-5: Confidentiality and Privacy Requirements			
Lecture	00:30		
Activity 2-5: To be determined by instructor		00:00	
Topic 2-6: Ethical Conduct			
Lecture	2:30		
Activity 2-6: Core Values		00:45	
Activity: See suggested activity		01:00	
<b>Unit 2 Totals</b>	<b>11:00</b>	<b>3:45</b>	<b>14:45</b>
<b>Unit 3: Administration</b>			
Topic 3-1: Preparing Inspection Reports			

## Fire Inspector 1A

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Segment	Lecture Time	Activity Time	Total Unit Time
Lecture	00:30		
Activity 3-1: See suggested activity		00:45	
Topic 3-2: Recognizing the Need for a Permit			
Lecture	00:45		
Activity 3-2: Fire Code Permit Types		00:15	
Topic 3-3: Recognizing the Need for Plan Review			
Lecture	00:30		
Activity 3-3: To be determined by instructor		00:00	
Topic 3-4: Investigating Common Complaints			
Lecture	1:00		
Activity 3-4: To be determined by instructor		00:00	
Topic 3-5: Participating in Legal Proceedings			
Lecture	2:00		
Activity 3-5: To be determined by instructor		00:00	
<b>Unit 3 Totals</b>	<b>4:45</b>	<b>1:00</b>	<b>6:45</b>
<b>Lecture, Activity, and Unit Totals:</b>	<b>16:45</b>	<b>4:45</b>	<b>21:30</b>

### Course Totals

Segment Type	Time
Total Lecture Time (LT)	16:45
Total Activity Time (AT)	4:45
Total Testing Time (TT)	2:30
<b>Total Course Time</b>	<b>24:00</b>

### Core Values

#### Activity 2-6

**Format:** Individual

**Time Frame:** 00:45

#### Description

Decision-making has its roots in our values system. Although we don't consciously link the two, they are nevertheless connected. This activity provides students with an opportunity to gain a deeper understanding of his or her value system and shed some light on how it affects the decision-making process.

#### Materials

- One deck of Values Cards (including blank cards) for each student

#### Instructions

1. Spread the value cards face up in front of you.
2. Choose five cards that most closely represent your core values.
3. If needed, use the blank cards to write any missing value that pertains to you (as one of your five).
4. Place the remaining cards face down in a discard pile.
5. Of the five values, select the one value you most closely identify with.
6. Be prepared to discuss your decisions with the class.

#### Instructor Notes

- Print one set of cards (including the blank card) for each student participating in the activity.
- **Delete the Instructor Notes block if you choose to print and distribute this page to students.**

# Fire Inspector 1A

## Activity 2-6

<p><b>ADVANCEMENT</b></p> <p>Growth Professional advancement Personal maturity</p>	<p><b>BEAUTY</b></p> <p>The appreciation of loveliness (i.e., enjoying art, nature, and work)</p>
<p><b>COOPERATION</b></p> <p>Communication Team effort Working together</p>	<p><b>CREATIVITY</b></p> <p>Freedom Imagination The desire for new ideas</p>
<p><b>DEDICATION</b></p> <p>A passionate belief in something</p>	<p><b>FAITH</b></p> <p>Believing in:</p> <ul style="list-style-type: none"><li>• Yourself</li><li>• a higher power</li><li>• The goodness of life</li><li>• The goals of your organization</li></ul>
<p><b>FREEDOM</b></p> <p>Absence of necessity or coercion Liberation Independence</p>	<p><b>HEALTH</b></p> <p>Physical and mental wellbeing</p>

**Fire Inspector 1A**

Activity 2-6

<p><b>HELPFULNESS</b></p> <p>Sense of concern for and outreach to the needs of others</p>	<p><b>HONESTY</b></p> <p>Fairness Straightforwardness Sincerity Truthfulness</p>
<p><b>INTEGRITY</b></p> <p>Moral and intellectual honesty</p>	<p><b>JUSTICE</b></p> <p>Fairness Balance Moral equality</p>
<p><b>KNOWLEDGE</b></p> <p>Seeking and learning new insights</p>	<p><b>LIFE</b></p> <p>Principle or force distinctive of animate beings</p>
<p><b>LOVE</b></p> <p>Personal warm feelings of caring and affection</p>	<p><b>LOYALTY</b></p> <p>Faithfulness to another person</p>

# Fire Inspector 1A

## Activity 2-6

<p><b>MORALITY</b></p> <p>Ethical standards Conscience Sense of right and wrong</p>	<p><b>OPENNESS</b></p> <p>Willingness to try new things</p>
<p><b>PATIENCE</b></p> <p>Bearing pains or trials calmly Steadfastness in suffering or crisis</p>	<p><b>PLEASURE</b></p> <p>What you enjoy What delights you</p>
<p><b>POWER</b></p> <p>Ability to lead Direct Persuade Control</p>	<p><b>PROFESSIONALISM</b></p> <p>Commitment to quality Pride in your work</p>
<p><b>RECOGNITION</b></p> <p>To receive special attention To feel "important"</p>	<p><b>RELIGION</b></p> <p>Belief in a supreme being A spiritual relationship with others</p>



**Fire Inspector 1A**

Activity 2-6

<p><b>RESPONSIBILITY</b></p> <p>Accountability Maturity Ability to respond</p>	<p><b>SECURITY</b></p> <p>Having the essentials you need to live</p>
<p><b>SENSITIVITY</b></p> <p>Awareness Responsiveness Approachability</p>	<p><b>SOCIAL</b></p> <p>Lots of fun Friends Companionship</p>
<p><b>SUCCESS</b></p> <p>Attainment of wealth Favor or eminence Achieving your goals</p>	<p><b>TRUSTWORTHINESS</b></p> <p>Dependability deserving of confidence</p>
<p><b>VITALITY</b></p> <p>Spirit Life Intuition</p>	<p><b>WEALTH</b></p> <p>Material income</p>

**Fire Inspector 1A**

Activity 2-6

<p><b>WISDOM</b></p> <p>Mature understanding of life</p>	<p><b>WORK</b></p> <p>Feeling good about your job as challenging and rewarding</p>
<p><b>WORTHWHILENESS</b></p> <p>Acceptance and appreciation as a person – not a thing.</p>	<p>(Left Blank on Purpose)</p>
<p>(Left Blank on Purpose)</p>	<p>(Left Blank on Purpose)</p>
<p>(Left Blank on Purpose)</p>	<p>(Left Blank on Purpose)</p>

## **Fire Inspector 1A**

### Activity 3-2

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## **Fire Code Permit Types**

### **Activity 3-2**

**Format:** Individual

**Time Frame:** 00:15

### **Description**

This activity provides students with an opportunity to identify situations and conditions requirement operational and construction permits.

### **Instructions**

1. Identify which activities or operations require an operational permit and which require a construction permit.

# Fire Inspector 1A

## Activity 3-2

Activity or Operation	Construction Permit	Operational Permit
1. Spraying or dipping	___ Construction	___ Operational
2. Aviation facilities	___ Construction	___ Operational
3. Exhibits and trade shows	___ Construction	___ Operational
4. Combustible Fibers	___ Construction	___ Operational
5. Flammable liquids	___ Construction	___ Operational
6. Floor finishing	___ Construction	___ Operational
7. Automatic fire extinguishing systems	___ Construction	___ Operational
8. Compressed gas systems	___ Construction	___ Operational
9. Lumber yards	___ Construction	___ Operational
10. Modifying an alarm system	___ Construction	___ Operational
11. Installing a Class B furnace (industrial oven)	___ Construction	___ Operational
12. Places of assembly	___ Construction	___ Operational
13. Private fire hydrant in a commercial complex	___ Construction	___ Operational
14. Waste handling	___ Construction	___ Operational
15. Temporary tent installation	___ Construction	___ Operational

## Fire Inspector 1A

### Activity 3-2

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#### Answer Key

Remove the answer key from the student copy of this activity before distribution.

1. Spraying or dipping: C / O
2. Aviation facilities: O
3. Exhibits and trade shows: C
4. Combustible fibers: C
5. Flammable liquids: C / O
6. Floor finishing: O
7. Automatic fire-extinguishing systems: C
8. Compressed gas systems: C / O
9. Lumber yards: O
10. Modifying a fire alarm system: C
11. Installing a Class B furnace (industrial oven): C
12. Places of assembly: O
13. Private fire hydrant in a commercial complex: C / O
14. Waste handling: O
15. Temporary tent installation: C / O



# Fire and Life Safety

## Course Plan

### Course Details

<b>Certification:</b>	Fire Inspector 1
<b>CTS Guide:</b>	Fire Inspector 1 Certification Training Standard (2014)
<b>Description:</b>	This course provides students with a basic knowledge of fire and life safety aspects related to the roles and responsibilities of a Fire Inspector 1 including building construction, occupancy classifications, occupancy load, means of egress, hazardous conditions, fire growth potential, fire flow, and emergency planning and preparedness measures.
<b>Designed For:</b>	Entry-level Inspector
<b>Prerequisites:</b>	Fire Inspector 1A: Duties and Administration
<b>Standard:</b>	Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
<b>Hours:</b>	Lecture: 18:30 Activities: 3:30 Testing: 2:00
<b>Hours (Total):</b>	24:00
<b>Maximum Class Size:</b>	30
<b>Instructor Level:</b>	Primary Instructor
<b>Instructor/Student Ratio:</b>	1:30
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES

### Required Resources

#### Instructor Resources

To teach this course, instructors need:

- California Building Code  
(International Code Council, current edition)
- California Code of Regulations (CCR) Title 19  
(Office of Administrative Law, <https://oal.ca.gov/>)
- California Fire Code  
(International Code Council, current edition)

Reference manual options:

- *Fire Inspection and Code Enforcement Instructor Resource Kit*  
(IFSTA, 8th edition)

Or the combination of the following:

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, Jones & Bartlett Learning,  
ISBN: 9781284137743)
- *Fire Inspector: Principles and Practice Instructor's ToolKit* CD-ROM  
(International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning,  
ISBN: 9781284095654)

#### Online Instructor Resources

The following instructor resources are available online at  
<http://osfm.fire.ca.gov/training/resources>:

- Activity 2-1: Construction Types
- Activity 5-1: Means of Egress Elements\
- Course plan
- Website

#### Student Resources

To participate in this course, students need:

- California Fire Code  
(International Code Council, current edition)

Reference manual options:

- *Fire Inspection and Code Enforcement*  
(IFSTA, 8th edition, ISBN: 9780879396053)

Or

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, ISBN:  
9780763798574)

DRAFT



### Unit 1: Introduction

#### Topic 1-1: Orientation and Administration

##### Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

##### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
  - Activities
  - Required student resources
  - Class participation requirements

##### Discussion Questions

1. What is a formative test?
2. What is a summative test?

##### Activities

1. To be determined by the instructor.

#### Topic 1-2: Fire Marshal Certification Process

##### Terminal Learning Objective

At the end of this topic, a student will be able to identify different levels in the Fire Marshal certification track, the courses and requirements for Fire Inspector 1 certification, and be able to describe the capstone task book and testing process.

##### Enabling Learning Objectives

1. Identify the different levels of certification in the Fire Inspector certification track

## Fire Inspector 1B

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- Fire Inspector 1
  - Fire Inspector 2
2. Identify the other Fire Prevention certification tracks
    - Plan Examiner
    - Fire Marshal
  3. Identify the courses required for Fire Inspector 1
    - Fire Inspector 1A: Duties and Administration
    - Fire Inspector 1B: Fire and Life Safety
    - Fire Inspector 1C: Field Inspection
    - Fire Inspector 1D: Field Inspection – California Specific
  4. Identify any other requirements for Fire Inspector 1
  5. Describe the capstone task book process
    - Complete all prerequisites and course work
    - Submit application and fees to request capstone task book
      - Must be employed by a California Fire Agency as a Fire Inspector
    - Complete all job performance requirements included in the task book
    - Must have identified evaluator verify individual task completion via signature
    - Must have Fire Chief or authorized representative verify task book completion via signature
  6. Describe the capstone testing process
    - Complete coursework
    - Schedule online capstone test
    - Schedule skills evaluation test

### Discussion Questions

1. How many levels are there in the Fire Marshal certification track? What are they?

### Activities

1. To be determined by the instructor.

## Unit 2: Building Construction

### Topic 2-1: Verifying Construction Type for an Addition or Remodel

#### Terminal Learning Objective

At the end of this topic, a student given field observations or a description of a project and a description of materials being used will be able to verify the type of construction for an addition or remodel in order to identify and record the construction type in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify applicable codes and standards adopted by the jurisdiction
2. Identify types of construction
  - Type I (A and B)
    - California Building Code, Chapter 6, Table 601

- IFSTA, p. 124 (7th ed.), Table 4.1
  - Type II (A and B)
    - California Building Code, Chapter 6, Section 602.2 and Table 601
    - IFSTA, p. 124 (7th ed.), Table 4.1
  - Type III (A and B)
    - California Building Code, Chapter 6, Section 602.3
    - IFSTA, p. 124 (7th ed.), Table 4.1
  - Type IV – Heavy Timber
    - California Building Code, Chapter 6, Section 602.4
    - IFSTA, p. 124 (7th ed.), Table 4.1
  - Type V (A and B) – Wood Frame
    - California Building Code, Chapter 6, Section 602.5
    - IFSTA, p. 124 (7th ed.), Table 4.1
3. Identify rated construction components
  4. Identify accepted building construction methods and materials
    - Foundations
    - Exterior walls
    - Floor and ceiling assemblies
    - Roof covering and assembly classifications
    - Fire barriers
    - Fire partitions
    - Fire walls
    - Fire-resistant joint systems
    - Enclosed stairs
    - Horizontal assemblies (exit corridors, horizontal exits, rated, unrated)
    - Opening protection
    - Penetration protection
    - Shaft enclosures
    - Smoke barriers
    - Smoke partitions
    - Draft stops
    - Attic stops
    - Interior finishes
    - Fire sprinkler systems (impacts other features)
  5. Read plans

### Discussion Questions

1. What are the different types of construction?
2. What type of construction does the code approve for hospitals?
3. What is the purpose of a draft stop?
4. What are the components of a fire-resistance-rated wall?
5. What is the purpose of a parapet?

### Activities

1. Activity 2-1: Construction Types

**CTS Guide Reference:** CTS 3-4

## Unit 3: Occupancy Classifications

### Topic 3-1: Identifying Occupancy Classifications for a Single-use Occupancy

#### Terminal Learning Objective

At the end of this topic, a student given a description of an occupancy and its use will be able to identify the occupancy classification of a single-use occupancy in accordance with applicable codes and standards.

#### Enabling Learning Objectives

1. Recognize occupancy classification types
2. Identify state-regulated occupancy classifications
3. Identify applicable codes, regulations, and standards adopted by the jurisdiction
4. Identify operational features that change the occupancy classification
5. Recognize fire hazards presented by various occupancies

#### Discussion Questions

1. What is the difference between gross and net square footage?
2. Who determines occupant classifications?

#### Activities

1. Given a fill-in-the-blank occupancy classification activity, have students identify the occupancy classification of different structures.

**CTS Guide Reference:** CTS 3-1

## Unit 4: Occupancy Load

### Topic 4-1: Computing the Allowable Occupant Load of a Single-use Occupancy

#### Terminal Learning Objective

At the end of this topic, a student given a detailed description of an occupancy will be able to compute the allowable occupant load of a single-use occupancy or portion thereof in accordance with applicable codes and standards.

#### Enabling Learning Objectives

1. Recognize occupant load factors
  - Table 1004.1.1 – Maximum Floor Area Allowances Per Occupant (California Fire Code or California Building Code)
2. Identify occupancy factors related to various occupancy classifications
3. Calculate occupant loads
4. Describe how to use measuring tools
  - Plans and scales
  - Field measuring devices

- Ceiling tiles
  - Floor tiles
5. Describe how to make field sketches

### Discussion Questions

1. What are the purposes and uses of a building's occupant load?
2. When does the code require the posting of an occupant load?

### Activities

1. Given several scenarios, determine the occupant load of a building or portion thereof.

**CTS Guide Reference:** CTS 3-2

## Unit 5: Means of Egress

### Topic 5-1: Inspecting Means of Egress Elements

#### Terminal Learning Objective

At the end of this topic, a student given observations made during a field inspection of an existing building will be able to inspect means of egress elements in order to verify the maintenance of egress elements in compliance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Describe egress elements
  - Exit access
  - Exits
  - Exit discharge
2. Identify means of egress components, including:
  - Doors
  - Door swing
  - Access controlled doors
  - Hardware
  - Corridors
    - Walls
    - Ceilings
    - Floors
  - Special egress control devices
  - Stairs
  - Ramps
  - Fire escape ladders
  - Fire escape slides (slidescapes)
3. Identify applicable codes and standards adopted by the jurisdiction related to means of egress elements
4. Identify maintenance requirements of egress elements
  - Operational doors

- Unobstructed pathways
  - Proper illumination
  - Proper signage
  - Under alarm conditions
    - Delayed egress locks
    - Access control egress
    - Pressurized stairways
    - Smoke-control systems
    - Automatic closing fire doors
5. Identify occupancy egress requirements
    - Occupant load
    - Number of exits
    - Separation
    - Travel distance
      - Fire sprinklers
      - Horizontal exits
      - Active vs. passive
  6. Identify the relationship of fixed fire protection systems to egress requirements and to approved means of egress elements, including:
    - Doors
    - Hardware
    - Lights
  7. Observe and recognize problems with egress elements
  8. Make basic decisions related to means of egress

### Discussion Questions

1. How does an inspector determine exit width?
2. What does the code cite as the minimum required exit width?
3. How do you determine the aisle width between unfixed tables and chairs?
4. What is the difference between a fire door and a smoke and draft assembly?
5. What mandates the maintenance of fire escapes?
6. When does the code require pathway illumination?
7. When does the code require floor-level exit signs?
8. Is an exterior path of egress part of an exit system?
9. Is a door that is part of a listed assembly always required to be self closing?
10. When does the code allow an exit to terminate before reaching a public way?

### Activities

1. Activity 5-1: Means of Egress Elements
2. Given a plan, determine occupancy classification, square footage, occupant load, number of exits required, exit separation, door hardware, signage, and illumination.

**CTS Guide Reference:** CTS 3-3

### Unit 6: Hazardous Conditions and Fire Growth Potential

#### Topic 6-1: Recognizing Hazardous Conditions

##### Terminal Learning Objective

At the end of this topic, a student given field observations will be able to recognize hazardous conditions involving equipment, processes, and operations in order to verify that equipment is maintained and processes and operations are conducted in accordance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

##### Enabling Learning Objectives

1. Recognize basic fire behavior
  - Fire triangle / tetrahedron
  - Energy sources
  - Fire stages
  - Flame spread and smoke development
  - Heat transfer mechanisms
2. Identify ignition sources
3. Identify fire prevention practices
  - Dust production
  - Flammable and combustible materials
  - Hazardous materials storage and handling
  - Ignition sources
  - Vapor recovery
  - Cooking equipment
  - Electrical hazards
4. Identify safe housekeeping practices
5. Observe, recognize problems with, and make decisions about hazardous conditions
6. Apply codes and standards to hazardous conditions

##### Discussion Questions

1. What are the components of the fire tetrahedron?
2. In which stage of a fire does flashover occur?
3. What is the most common heat transfer method found in a structure fire?
4. What form of heat transfer takes place when a fire transfers from one structure to another?

##### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-8

### Topic 6-2: Recognizing Hazardous Fire Growth Potential in a Building or Space

#### Terminal Learning Objective

At the end of this topic, a student given field observations will be able to recognize hazardous fire growth potential in a building or space in order to identify, document, and report hazardous conditions in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify the flame spread and smoke development ratings of:
  - Contents
  - Interior finishes
  - Building construction elements
  - Decorations
  - Decorative materials
  - Furnishings
2. Identify safe housekeeping practices related to hazardous fire growth potential
3. Observe, recognize problems with, and make decisions about fire growth potential
4. Apply codes and standards related to hazardous fire growth potential
5. Recognize hazardous conditions

#### Discussion Questions

1. What do the results of a Steiner tunnel test reveal?
2. What passive and active systems failed in the MGM fire?
3. What impact would an unprotected shaft have on a multistory building during a fire?
4. How does a material's flame spread impact fire behavior?
5. What is the difference between piled storage and high piled storage?

#### Activities

1. Analyze a video of the MGM Grand fire (Las Vegas, November 1980).

**CTS Guide Reference:** CTS 3-14

## Unit 7: Fire Flow

### Topic 7-1: Verifying Fire Flows

#### Terminal Learning Objective

At the end of this topic, a student given fire flow test results and water supply data will be able to verify that fire flows for a site are in accordance with applicable codes and standards and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify types of water distribution systems and other water sources in the local community
2. Identify water distribution system testing processes
3. Identify issues that impact water flow testing, including:



- Discharge requirements (National Pollutant Discharge Elimination System)
  - Flood control authority policies
  - Water purveyor policies
4. Identify characteristics of public and private water supply systems
    - Hydrant types
    - Hydrant spacing
    - Dead end water lines
  5. Identify flow testing procedures
  6. Use tools needed to evaluate available water flow, including:
    - Pitot gauge
    - Pressure gauge
    - Water map showing mains and direction of flow
    - Diffusers
    - Formulas
  7. Calculate and graph fire flow results
  8. Verify proper maintenance of required water supplies, including:
    - Verifying access to hydrants maintenance
    - Verifying proper maintenance of private hydrants in accordance with California Code of Regulations, Title 19, Chapter 5

### Discussion Questions

1. How do you determine the fire flow for a building or project?
2. How does the installation of fire sprinklers affect fire flow?
3. What sprinkler systems qualify for fire flow reductions?
4. What are the minimum fire flow requirements for commercial and residential projects?
5. How do you determine hydrant spacing?
6. Is a recycled water system an approved water source for firefighting?

### Activities

1. Given a data set, calculate and graph fire flow results.

**CTS Guide Reference:** CTS 3-15

## Unit 8: Emergency Planning and Preparedness Measures

### Topic 8-1: Verifying Emergency Planning and Preparedness Measures

#### Terminal Learning Objective

At the end of this topic, a student given field observations, copies of emergency plans, and records of exercises will be able to verify that emergency planning and preparedness measures are in place and practiced in accordance with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify what occupancies are required to have an evacuation plan, including:
  - K-12 schools

## Fire Inspector 1B

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- High-rise buildings
  - Hospitals
  - Care facilities
  - Hotels
  - Organized camps
  - Office buildings with two or more stories
  - Covered malls
  - (See California Code of Regulations, Title 19, Article 1, Section 3.09)
2. Describe the elements of an evacuation plan, including:
    - Evacuation routes: maps identifying current location and egress routes
    - Types of evacuations (partial vs. full)
    - Monitor's duties when evaluating a fire drill
    - Occupants' duties in participating in fire drills
  3. Identify requirements related to emergency evacuation drills required within the jurisdiction
  4. Identify ways to conduct and/or evaluate fire drills in various occupancies
  5. Recognize human behavior commonly exhibited during fires and other emergencies
  6. Identify the emergency evacuation requirements contained in the applicable codes and standards
  7. Interpret plans and reports

### Discussion Questions

1. How often should a high-rise building have a fire drill?
2. What is the required frequency of fire drills for public schools?
3. In what code can you find the public school fire drill requirements?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-10

**Time Table**

Segment	Lecture Time	Activity Time	Total Unit Time
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration			
Lecture	00:30		
Activity 1-1: To be determined by instructor		00:00	
Topic 1-2: Fire Marshal Certification Process			
Lecture	00:30		
Activity 1-2: To be determined by instructor		00:00	
<b>Unit 1 Totals</b>	<b>1:00</b>	<b>00:00</b>	<b>1:00</b>
<b>Unit 2: Building Construction</b>			
Topic 2-1: Verifying Construction Type for a Building or Remodel			
Lecture	4:00		
Activity 2-1: Construction Types		00:30	
<b>Unit 2 Totals</b>	<b>4:00</b>	<b>00:30</b>	<b>4:30</b>
<b>Unit 3: Occupancy Classifications</b>			
Topic 3-1: Identifying Occupancy Classifications for a Single-use Occupancy			
Lecture	2:00		
Activity 3-1: See suggested activity		00:30	
<b>Unit 3 Totals</b>	<b>2:00</b>	<b>00:30</b>	<b>2:30</b>
<b>Unit 4: Occupancy Load</b>			
Topic 4-1: Computing the Allowable Occupant Load of a Single-use Occupancy			
Lecture	1:30		
Activity 4-1: See suggested activity		00:30	
<b>Unit 4 Totals</b>	<b>1:30</b>	<b>00:30</b>	<b>2:00</b>
<b>Unit 5: Means of Egress</b>			
Topic 5-1: Inspecting Means of Egress Elements			
Lecture	4:30		
Activity 5-1: Means of Egress Elements		00:30	
Activity: See suggested activity		00:30	
<b>Unit 5 Totals</b>	<b>4:30</b>	<b>1:00</b>	<b>5:30</b>

## Fire Inspector 1B

Segment	Lecture Time	Activity Time	Total Unit Time
<b>Unit 6: Hazardous Conditions and Fire Growth Potential</b>			
Topic 6-1: Recognizing Hazardous Conditions			
Lecture	1:00		
Activity 6-1: To be determined by instructor		00:00	
Topic 6-2: Recognizing Hazardous Fire Growth Potential in a Building or Space			
Lecture	1:00		
Activity 6-2: See suggested activity		00:30	
<b>Unit 6 Totals</b>	<b>2:00</b>	<b>00:30</b>	<b>2:30</b>
<b>Unit 7: Fire Flow</b>			
Topic 7-1: Verifying Fire Flows			
Lecture	1:30		
Activity 7-1: See suggested activity		00:30	
<b>Unit 7 Totals</b>	<b>1:30</b>	<b>00:30</b>	<b>2:00</b>
<b>Unit 8: Emergency Planning and Preparedness Measures</b>			
Topic 8-1: Verifying Emergency Planning and Preparedness Measures			
Lecture	2:00		
Activity 8-1: To be determined by instructor		00:00	
<b>Unit 8 Totals</b>	<b>2:00</b>	<b>00:00</b>	<b>2:00</b>
<b>Lecture, Activity, and Unit Totals:</b>	<b>18:30</b>	<b>3:30</b>	<b>22:00</b>

### Course Totals

Segment Type	Time
Total Lecture Time (LT)	18:30
Total Activity Time (AT)	3:30
Total Testing Time (TT)	2:00
<b>Total Course Time</b>	<b>24:00</b>

# Fire Inspector 1B

## Activity 2-1

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### Construction Types

#### Activity 2-1

**Format:** Individual

**Time Frame:** 00:30

#### Description

This activity provides students with an opportunity to identify the construction type for different structures.

#### Instructions

1. Match each building with its appropriate construction type.

#### Construction Type

- Type I (A and B)
- Type II (A and B)
- Type III (A and B)
- Type IV - Heavy Timber
- Type V (A and B)

<b>Building</b>	<b>Construction Type</b>
1. Single family residence	_____
2. Hospital	_____
3. Strip center	_____
4. Office building with heavy timbers	_____
5. Strip center with limited wood	_____
6. Office building with concrete tilt up	_____
7. Residence with lightweight steel	_____

# Fire Inspector 1B

## Activity 5-1

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### Means of Egress Elements

#### Activity 5-1

**Format:** Individual

**Time Frame:** 00:30

#### Description

This activity provides students with an opportunity to explore means of egress.

#### Instructions

1. Match each component with a means of egress element.
  - a. Exit Access
  - b. Exit
  - c. Exit Discharge

<u>Component</u>	<u>Means of Egress</u>
1. Exit passageway	_____
2. Horizontal exit	_____
3. Corridor	_____
4. Enclosed exit stair	_____
5. Egress court	_____
6. Room	_____
7. Exit balcony	_____
8. Aisle	_____
9. Exterior ramp	_____
10. Common path of egress travel	_____
11. Smoke-proof enclosure	_____
12. Exit door	_____



# Field Inspection

## Course Plan

### Course Details

<b>Certification:</b>	Fire Inspector 1
<b>CTS Guide:</b>	Fire Inspector 1 Certification Training Standard (2014)
<b>Description:</b>	This course provides students with a basic knowledge of field inspection roles and responsibilities of a Fire Inspector 1 including basic plan review, emergency access for an existing system, hazardous materials, and the operational readiness of fixed fire suppression systems, existing fire detection and alarm systems, and portable fire extinguishers.
<b>Designed For:</b>	Entry-level Inspector
<b>Prerequisites:</b>	Fire Inspector 1A: Duties and Administration
<b>Standard:</b>	Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
<b>Hours:</b>	Lecture: 18:30 Activities: 2:30 Testing: 3:00
<b>Hours (Total):</b>	24:00
<b>Maximum Class Size:</b>	30
<b>Instructor Level:</b>	Primary Instructor
<b>Instructor/Student Ratio:</b>	1:30
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES

### Required Resources

#### Instructor Resources

To teach this course, instructors need:

- California Building Code  
(International Code Council, current edition)
- California Code of Regulations (CCR) Title 19  
(Office of Administrative Law, <https://oal.ca.gov/>)
- California Fire Code  
(International Code Council, current edition)
- Ethical Practices Inventory  
(The Williams Institute, [www.ethics-twi.org](http://www.ethics-twi.org))

Reference manual options:

- *Fire Inspection and Code Enforcement Instructor Resource Kit*  
(IFSTA, 8th edition)

Or the combination of the following:

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, Jones & Bartlett Learning, ISBN: 9781284137743)
- *Fire Inspector: Principles and Practice Instructor's ToolKit* CD-ROM  
(International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9781284095654)

#### Online Instructor Resources

The following instructor resources are available online at

<http://osfm.fire.ca.gov/training/resources>:

- Activity 6-1: Portable Fire Extinguisher Ratings
- Course plan
- Website

#### Student Resources

To participate in this course, students need:

- California Fire Code  
(International Code Council, current edition)



Reference manual options:

- *Fire Inspection and Code Enforcement*  
(IFSTA, 8th edition, ISBN: 9780879396053)

Or

- *Fire Inspector: Principles and Practice*  
(International Association of Fire Chiefs, Revised Enhanced 1st edition, ISBN:  
9780763798574)

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### Unit 1: Introduction

#### Topic 1-1: Orientation and Administration

##### Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

##### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
  - Activities
  - Required student resources
  - Class participation requirements

##### Discussion Questions

1. What is a formative test? What is a summative test?

##### Activities

1. To be determined by the instructor.

#### Topic 1-2: Fire Marshal Certification Process

##### Terminal Learning Objective

At the end of this topic, a student will be able to identify different levels in the Fire Marshal certification track, the courses and requirements for Fire Inspector 1 certification, and be able to describe the capstone task book and testing process.

##### Enabling Learning Objectives

1. Identify the different levels of certification in the Fire Inspector certification track
  - Fire Inspector 1

## Fire Inspector 1C

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- Fire Inspector 2
- 2. Identify the other Fire Prevention certification tracks
  - Plan Examiner
  - Fire Marshal
- 3. Identify the courses required for Fire Inspector 1
  - Fire Inspector 1A: Duties and Administration
  - Fire Inspector 1B: Fire and Life Safety
  - Fire Inspector 1C: Field Inspection
  - Fire Inspector 1D: Field Inspection – California Specific
- 4. Identify any other requirements for Fire Inspector 1
- 5. Describe the capstone task book process
  - Complete all prerequisites and course work
  - Submit application and fees to request capstone task book
    - Must be employed by a California Fire Agency as a Fire Inspector
  - Complete all job performance requirements included in the task book
  - Must have identified evaluator verify individual task completion via signature
  - Must have Fire Chief or authorized representative verify task book completion via signature
- 6. Describe the capstone testing process
  - Complete coursework
  - Schedule online capstone test
  - Schedule skills evaluation test

### Discussion Questions

1. How many levels are there in the Fire Marshal certification track? What are they?

### Activities

1. To be determined by the instructor.

## Unit 2: Basic Plan Review

### Topic 2-1: Comparing Approved Plans and Existing Fire Protection Systems

#### Terminal Learning Objective

At the end of this topic, a student given approved plans and field observations will be able to compare an approved plan to an existing fire protection system in order to identify, document, and report any modifications to the system in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify construction document types, including:
  - Plans
  - Cut sheets
  - Calculations
  - Technical reports

- Specifications
- 2. Identify fire protection symbols and terminology associated with plans for fire protection systems (see NFPA 170)
  - Fire alarms
  - Fire sprinklers
  - Special systems
  - Fire protection
- 3. Read and comprehend plans for fire protection systems
  - Title sheet
    - Table of contents
    - Scope of work
    - Designer's information
    - General conditions
    - Compass point
    - Revision block
    - Key plan
    - Deferred submittals
  - Title block (all sheets)
  - Scale (all sheets)
  - Views
    - Plan
    - Elevation
    - Section
    - Detailed
- 4. Observe, recognize problems with, and make decisions about existing fire protection systems
- 5. Apply codes and standards applicable to fire protection systems

### Discussion Questions

1. What is the difference between plan view and elevation view?
2. Where would you find installation details for a commercial hood system in a set of plans?

### Activities

1. Given a set of plans, identify the key components, symbols, and terminology.

**CTS Guide Reference:** CTS 3-9

## Unit 3: Emergency Access for an Existing System

### Topic 3-1: Inspecting Emergency Access for an Existing System

#### Terminal Learning Objective

At the end of this topic, a student given field observations will be able to inspect emergency access for an existing system in order to ensure maintenance of the required access for

emergency responders, and identify, document, and correct deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### Enabling Learning Objectives

1. Discuss codes and standards applicable to emergency access
2. Identify policies of the jurisdiction applicable to emergency access
  - Standard
    - Must provide access to within 150 feet of all portions of the exterior of the building
    - Must provide access of more than 150 feet with an approved turnaround
  - Exceptions
    - Discretion of the fire code official
3. Describe emergency access and accessibility requirements
  - Minimum width
  - Minimum height
  - Weight must conform with local apparatus axle loads
  - Turn radii must conform with local apparatus
  - Fire apparatus turnaround
  - Must have all-weather driving surface
  - Local approval required for road slope (see CFC Appendix D)
  - Bridges must support fire apparatus
  - Signage and curb marking must comply with the California Vehicle Code
  - Gates and barricades
    - Key boxes or electronic switches
  - Requirements for buildings under construction
4. Locate emergency access requirements contained in the applicable codes and standards
5. Observe, recognize problems with, and make decisions about emergency access

### Discussion Questions

1. Why do local jurisdictions require fire lanes?
2. Who enforces fire lanes?
3. What constitutes an all-weather driving surface?
4. What does the code require as the minimum clear height for a fire lane?
5. What does the code state as the minimum width of a fire lane?
6. Who designates fire lanes?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-11

## Unit 4: Operational Readiness of Fixed Fire Suppression Systems

### Topic 4-1: Determining the Operational Readiness of Fixed Fire Suppression Systems

### Terminal Learning Objective

At the end of this topic, a student given test documentation and field observations will be able to determine the operational readiness of existing fixed fire suppression systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### Enabling Learning Objectives

1. Identify components and operations of fixed fire suppression systems
  - Water-based
    - Automatic sprinklers
    - Water spray
    - Water mist
    - Foam water
  - Fire pumps
  - Special agent
    - Dry chemical
    - Wet chemical
    - Clean agent
    - CO<sub>2</sub> systems
    - Foam systems
2. Identify codes and standards applicable to fixed fire suppression systems
3. Observe, recognize problems with, and make decisions about fixed fire suppression systems
4. Read test documentation and maintenance reports
  - Determining the adequacy of fire protection based on the hazard present
  - Common components to inspect
  - Documentation
  - Other considerations
    - California adoption of NFPA 25
    - California Code of Regulations, Title 19, Chapter 5

### Discussion Questions

1. Is a water spray system the same as a fire sprinkler system?
2. Where do you find a dry pipe fire sprinkler system?
3. How often does the code require fire pump testing? Who can do the testing?
4. When does the code require inspection, testing and maintenance for a fire sprinkler system?
5. What is the most common application for a wet chemical fire extinguishing system?
6. What is the most common application for a dry chemical fire extinguishing system?
7. What is the most common application for a clean agent fire extinguishing system?

### Activities

1. To be determined by the instructor.

CTS Guide Reference: CTS 3-5

### Unit 5: Operational Readiness of Existing Fire Detection and Alarm Systems

#### Topic 5-1: Determining the Operational Readiness of Existing Fire Detection and Alarm Systems

##### Terminal Learning Objective

At the end of this topic, a student given test documentation and field observations will be able to determine the operational readiness of existing fire detection and alarm systems in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policy.

##### Enabling Learning Objectives

1. Identify the components and operation of fire detection and alarm systems and devices
  - Alarm systems
    - Fire alarm control units
    - Power supplies
    - Initiating devices
    - Alerting devices
    - Auxiliary control interface
  - Alarm-initiating devices
    - Smoke detectors
    - Heat detectors
    - Pilot sprinkler
    - Manual pull stations
    - Flame detectors
    - Water flow switches
    - Gas detectors
  - Notification methods
    - Public mode
    - Private mode
  - Panel monitoring
    - Supervised
    - Non-supervised
  - Signal transmission
    - Supervisory
    - System trouble
    - Alarms
2. Identify codes and standards applicable to fire detection and alarm systems and devices

3. Observe, recognize problems with, and make decisions about fire detection and alarm systems and devices
  - Visually observe components
  - Determine panel readiness
  - Confirm that all initiating devices are unobstructed
  - Review the owner's documentation of periodic inspections
  - Review any third-party notices of deficiencies in the system
4. Read test documentation and maintenance reports

### Discussion Questions

1. What is the difference between an initiating and a notification appliance?
2. What is the difference between a supervisory and a trouble signal?
3. What types of signals does the code require be transmitted to a central station?
4. What is the difference between a public mode and a private mode fire alarm system?
5. When is a fire alarm system required to be monitored?
6. When can a fire alarm system be disabled?
7. Who should be notified when a fire alarm system is disabled?
8. What is the inspection interval for inspection of a fire alarm system?

### Activities

1. Given a scenario, complete an NFPA 72 Inspection and Testing form.

**CTS Guide Reference:** CTS 3-6

## Unit 6: Operational Readiness of Portable Fire Extinguishers

### Topic 6-1: Determining the Operational Readiness of Portable Fire Extinguishers

#### Terminal Learning Objective

At the end of this topic, a student given test documentation and field observations will be able to determine the operational readiness of existing portable fire extinguishers in order to ensure operational readiness, document maintenance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify portable fire extinguishers
  - Classifications
  - Ratings
  - Types
  - Components
  - Placement
  - Agents used
2. Identify codes and standards applicable to portable fire extinguishers
3. Observe, recognize problems with, and make decisions about portable fire extinguishers
4. Read test documentation and maintenance reports
  - Verify pressure



- Check inspection tag(s)
- Identify service intervals (California Code of Regulations, Title 19, Chapter 3)
- Check service collar
- Check the seal
- Identify hydrostatic test identification
- Check for obstructions

### Discussion Questions

1. How often should an inspector do a visual inspection of a fire extinguisher?
2. When does the code require a hydrostatic test for a fire extinguisher?
3. What are the classifications of fire as it relates to the classification of a fire extinguisher?
4. How many tags are required on a fire extinguisher?
5. When does the code require a licensed technician to inspect a fire extinguisher?

### Activities

1. Activity 6-1: Portable Fire Extinguisher Ratings

**CTS Guide Reference:** CTS 3-7

## Unit 7: Hazardous Materials

### Topic 7-1: Classification and Properties

#### Terminal Learning Objective

At the end of this topic, a student given a substance or material will be able to identify its properties and hazards in accordance with basic principles of chemistry.

#### Enabling Learning Objectives

1. Define solid, liquid, and gas
2. Identify physical properties of liquids, gases, and solids, including:
  - Color
  - Smell
  - Freezing point
  - Boiling point
  - Melting point
  - Opacity
  - Viscosity
  - Density
  - Specific gravity
  - Vapor density
  - Vapor pressure
  - Water solubility
  - Flammable/explosive range
  - Flashpoint
  - Evaporation rate
3. Identify chemical properties of liquids, gases, and solids, including:

- Heat of combustion
  - Reactivity with water
  - pH scale
4. Describe the physical hazards of:
    - Explosives and blasting agents
    - Flammable and combustible liquids
    - Flammable solids and gases
    - Organic peroxide materials
    - Oxidizer materials
    - Pyrophoric materials
    - Unstable (reactive) materials
    - Water reactive solids and liquids
    - Cryogenic fluids
    - Combustible fibers
  5. Describe the health hazards of:
    - Highly toxic materials
    - Toxic materials
    - Corrosive materials
  6. Identify ways to determine chemical information, including:
    - Material Safety Data Sheet (MSDS)
    - Labels
    - Shipping documents
    - References (ERG, NIOSH, etc.)
    - Handling

### Discussion Questions

1. What chemical properties have a significant impact on code requirements?
2. How do you classify a chemical?
3. Where can you find the properties for a specific chemical?

### Activities

- Given several MSDS examples, ask students to classify substances.

**CTS Guide Reference:** CTS 3-12 and 3-13

## Topic 7-2: Verifying Code Compliance for Incidental Storage, Handling, and Use of Flammable and Combustible Liquids and Gases

### Terminal Learning Objective

At the end of this topic, a student given field observations and inspection guidelines from the jurisdiction will be able to verify code compliance for incidental storage, handling, and use of flammable and combustible liquids and gases in order to address applicable codes and standards and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### Enabling Learning Objectives

1. Identify the classification of incidental amounts of flammable and combustible liquids and gases
2. Identify the labeling requirements of incidental amounts of flammable and combustible liquids and gases
3. Identify the storage requirements of incidental amounts of flammable and combustible liquids and gases
  - Maximum allowable quantities
    - California Fire Code, Table 2703.1.1 (1-4)
  - Permissible quantities
  - Waste
4. Identify the handling requirements of incidental amounts of flammable and combustible liquids and gases
5. Identify the use of incidental amounts of flammable and combustible liquids and gases
  - CUPA (Certified Unified Program Agency) reporting requirements
6. Observe, recognize problems with, and make decisions about incidental amounts of flammable and combustible liquids and gases
7. Apply codes and standards applicable to incidental amounts of flammable and combustible liquids and gases

### Discussion Questions

1. What is the difference between quantities requiring a permit and maximum allowable quantities?
2. What fire-code-regulated activities does the CUPA control?

### Activities

- Given various scenarios, determine if the quantity and type of chemical exceeds the maximum allowable quantity.

**CTS Guide Reference:** CTS 3-12

## Topic 7-3: Verifying Code Compliance for Incidental Storage, Handling, and Use of Hazardous Materials

### Terminal Learning Objective

At the end of this topic, a student given field observations will be able to verify code compliance for incidental storage, handling, and use of hazardous materials in order to address applicable codes and standards for each hazardous material encountered and identify, document, and report each deficiency in accordance with applicable codes and standards and jurisdictional policies.

### Enabling Learning Objectives

1. Identify the classification of hazardous materials
2. Identify the labeling requirements of hazardous materials
3. Identify the transportation requirements of hazardous materials
4. Identify the storage requirements of hazardous materials
  - Maximum allowable quantities

- California Fire Code, Table 2703.1.1 (1-4)
  - California Fire Code, Table 2703.11.1
  - Permittable quantities
  - Waste
5. Identify the handling requirements of hazardous materials
  6. Identify the use of hazardous materials
  7. Observe, recognize problems with, and make decisions about hazardous materials
  8. Apply codes and standards applicable to hazardous materials

### Discussion Questions

1. How many classifications are there for hazardous materials?
2. Where would storage information be found for maximum allowable quantities?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-13

**Time Table**

Segment	Lecture Time	Activity Time	Total Unit Time
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration			
Lecture	00:30		
Activity 1-1: To be determined by instructor		00:00	
Topic 1-2: Fire Marshal Certification Process			
Lecture	00:30		
Activity 1-2: To be determined by instructor		00:00	
<b>Unit 1 Totals</b>	<b>1:00</b>	<b>00:00</b>	<b>1:00</b>
<b>Unit 2: Basic Plan Review</b>			
Topic 2-1: Comparing Approved Plans and Existing Fire Protection Systems			
Lecture	2:00		
Activity 2-1: See suggested activity		00:30	
<b>Unit 2 Totals</b>	<b>2:00</b>	<b>00:30</b>	<b>2:30</b>
<b>Unit 3: Emergency Access for an Existing System</b>			
Topic 3-1: Inspecting Emergency Access for an Existing System			
Lecture	2:00		
Activity 3-1: To be determined by instructor		00:00	
<b>Unit 3 Totals</b>	<b>2:00</b>	<b>00:00</b>	<b>2:00</b>
<b>Unit 4: Operational Readiness of Fixed Fire Suppression Systems</b>			
Topic 4-1: Determining the Operational Readiness of Fixed Fire Suppression Systems			
Lecture	4:00		
Activity 4-1: To be determined by instructor		00:00	
<b>Unit 4 Totals</b>	<b>4:00</b>	<b>00:00</b>	<b>4:00</b>
<b>Unit 5: Operational Readiness of Existing Fire Detection and Alarm Systems</b>			
Topic 5-1: Determining the Operational Readiness of Existing Fire Detection and Alarm Systems			

## Fire Inspector 1C

Segment	Lecture Time	Activity Time	Total Unit Time
Lecture	2:00		
Activity 5-1: See suggested activity		00:30	
<b>Unit 5 Totals</b>	<b>2:00</b>	<b>00:30</b>	<b>2:30</b>
<b>Unit 6: Operational Readiness of Portable Fire Extinguishers</b>			
Topic 6-1: Determining the Operational Readiness of Portable Fire Extinguishers			
Lecture	1:30		
Activity 6-1: Portable Fire Extinguisher Ratings		00:30	
<b>Unit 6 Totals</b>	<b>1:30</b>	<b>00:30</b>	<b>2:00</b>
<b>Unit 3: Hazardous Materials</b>			
Topic 7-1: Classification and Properties			
Lecture	2:00		
Activity 7-1: See suggested activity		00:30	
Topic 7-2: Verifying Code Compliance for Incidental Storage, Handling, and Use of Flammable and Combustible Liquids and Gases			
Lecture	2:00		
Activity 7-2: See suggested activity		00:30	
Topic 7-3: Verifying Code Compliance for Incidental Storage, Handling, and Use of Hazardous Materials			
Lecture	2:00		
Activity 7-3: To be determined by instructor		00:00	
<b>Unit 7 Totals</b>	<b>6:00</b>	<b>1:00</b>	<b>7:00</b>
<b>Lecture, Activity, and Unit Totals:</b>	<b>18:30</b>	<b>2:30</b>	<b>21:00</b>

### Course Totals

Segment Type	Time
Total Lecture Time (LT)	18:30
Total Activity Time (AT)	2:30
Total Testing Time (TT)	3:00
<b>Total Course Time</b>	<b>24:00</b>

# Fire Inspector 1C

## Activity 6-1

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### Portable Fire Extinguisher Ratings

#### Activity 6-1

**Format:** Individual

**Time Frame:** 00:30

#### Instructions

1. Match each fire hazard with the appropriate fire extinguisher rating.

#### Fire Extinguisher Ratings

- Class A
- Class B
- Class C
- Class D
- Class K

<b>Component</b>	<b>Fire Extinguisher Rating</b>
1. Television set	_____
2. Cardboard boxes	_____
3. Drop cloth soaked with oil-based paint	_____
4. Cooking oil in a deep fat fryer	_____
5. Electrical transformer	_____
6. Magnesium chips	_____
7. Propane from the relief valve on a small tank	_____
8. A small pile of waste lumber	_____
9. Broken kerosene lamp	_____
10. Smoking extension cord	_____
11. Railroad flare	_____
12. Oil on a cooking griddle	_____



# Field Inspection – California Specific Course Plan

## Course Details

<b>Certification:</b>	Fire Inspector 1
<b>CTS Guide:</b>	Fire Inspector 1 Certification Training Standard (2014)
<b>Description:</b>	This course provides students with a basic knowledge of a Fire Fighter I's field inspection roles and responsibilities specific to California including tents, canopies, and temporary membrane structures; fireworks and explosives; and wildland urban interface environments.
<b>Designed For:</b>	Entry-level Inspector
<b>Prerequisites:</b>	Fire Inspector 1A: Duties and Administration
<b>Standard:</b>	Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
<b>Hours:</b>	Lecture: 14:00 Activities: 00:30 Testing: 1:30
<b>Hours (Total):</b>	16:00
<b>Maximum Class Size:</b>	30
<b>Instructor Level:</b>	Primary Instructor
<b>Instructor/Student Ratio:</b>	1:30
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES



### Required Resources

#### Instructor Resources

To teach this course, instructors need:

- California Building Code  
(International Code Council, current edition)
- California Fire Code  
(International Code Council, current edition)
- California Public Resources Code 4290 and 4291 and Government Codes 51175 through 51189  
(State of California, <http://leginfo.legislature.ca.gov/faces/codes.xhtml>)
- California Code of Regulations (CCR) Title 14 and Title 19  
(Office of Administrative Law, <https://oal.ca.gov/>)
- NFPA 1123: Code for Fireworks Display  
(National Fire Protection Association, current edition)
- NFPA 1126: Standard for the Use of Pyrotechnics Before a Proximate Audience  
(National Fire Protection Association, current edition)
- *Laws and Regulations for Transportation, Use, and Storage of Fireworks in California*  
(Office of the State Fire Marshal, <http://osfm.fire.ca.gov/strucfireengineer/pdf/fireworks/FireworksHandbook2011.pdf>)

#### Online Instructor Resources

The following instructor resources are available online at

<http://osfm.fire.ca.gov/training/resources>:

- Wildland Hazard & Building Codes
  - [http://calfire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_codes.php](http://calfire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php)
- Activity 3-1: Fireworks Classifications

#### Student Resources

To participate in this course, students need:

- California Building Code  
(International Code Council, current edition)
- California Fire Code  
(International Code Council, current edition)
- California Public Resources Code 4290 and 4291 and Government Codes 51175 through 51189  
(State of California, <http://leginfo.legislature.ca.gov/faces/codes.xhtml>)
- California Code of Regulations (CCR) Title 14 and Title 19  
(Office of Administrative Law, <https://oal.ca.gov/>)
- NFPA 1123: Code for Fireworks Display  
(National Fire Protection Association, current edition)

- NFPA 1126: Standard for the Use of Pyrotechnics Before a Proximate Audience (National Fire Protection Association, current edition)
- *Laws and Regulations for Transportation, Use, and Storage of Fireworks in California* (Office of the State Fire Marshal, <http://osfm.fire.ca.gov/strucfireengineer/pdf/fireworks/FireworksHandbook2011.pdf>)

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## Unit 1: Introduction

### Topic 1-1: Orientation and Administration

#### Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

#### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
  - Activities
  - Required student resources
  - Class participation requirements

#### Discussion Questions

1. What is a formative test? What is a summative test?

#### Activities

1. To be determined by the instructor.

### Topic 1-2: Fire Marshal Certification Process

#### Terminal Learning Objective

At the end of this topic, a student will be able to identify different levels in the Fire Marshal certification track and the courses and requirements for Fire Inspector 1 certification, and be able to describe the capstone task book and testing process.

#### Enabling Learning Objectives

1. Identify the different levels of certification in the Fire Inspector certification track
  - Fire Inspector 1

## Fire Inspector 1D

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- Fire Inspector 2
- 2. Identify the other Fire Prevention certification tracks
  - Plan Examiner
  - Fire Marshal
- 3. Identify the courses required for Fire Inspector 1
  - Fire Inspector 1A: Duties and Administration
  - Fire Inspector 1B: Fire and Life Safety
  - Fire Inspector 1C: Field Inspection
  - Fire Inspector 1D: Field Inspection – California Specific
- 4. Identify any other requirements for Fire Inspector 1
- 5. Describe the capstone task book process
  - Complete all prerequisites and course work
  - Submit application and fees to request capstone task book
    - Must be employed by a California Fire Agency as a Fire Inspector
  - Complete all job performance requirements included in the task book
  - Must have identified evaluator verify individual task completion via signature
  - Must have Fire Chief or authorized representative verify task book completion via signature
- 6. Describe the capstone testing process
  - Complete coursework
  - Schedule online capstone test
  - Schedule skills evaluation test

### Discussion Questions

1. How many levels are there in the Fire Marshal certification track? What are they?

### Activities

1. To be determined by the instructor.

## Unit 2: Tents, Canopies, and Temporary Membrane Structures

### Topic 2-1: Inspecting Tents, Canopies, and Temporary Membrane Structures

#### Terminal Learning Objective

At the end of this topic, a student given applicable codes and standards and jurisdictional policies will be able to inspect a tent, canopy, or temporary membrane structure to verify that it complies with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Define the following terms:
  - Tent
  - Canopy
  - Temporary membrane structure

2. Identify the state requirements for tents, canopies and other temporary membrane structures (10 persons or greater)
  - Vehicle parking
  - Location on site
  - Structural requirements
  - Prohibited smoking
  - Fireworks and open flame
  - Fire extinguishers and other fire protection equipment
  - Fire safety personnel
  - Abatement of fire and panic hazards
  - Exit requirements
  - Cooking and heating equipment
  - Flame resistance
  - Labeling of tents
3. Identify when the California Building Code regulates a tent, canopy, or membrane structure
4. Observe, recognize problems with, and make decisions about tents, canopies, and temporary membrane structures

### Discussion Questions

1. What is the difference between a tent and a canopy?
2. What occupant load requires the presence of fire safety personnel?
3. What canopy size does the code exempt from permitting and regulation?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-16

## Unit 3: Fireworks and Explosives

### Topic 3-1: Inspecting Safe and Sane Fireworks Retail Stands

#### Terminal Learning Objective

At the end of this topic, a student given applicable codes and standards and jurisdictional policies will be able to inspect a safe and sane fireworks stand in order to verify that fireworks displays and storage comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify fireworks classifications
  - Dangerous
  - Safe and sane
  - Agriculture and wildlife
  - Model rocket motor

## Fire Inspector 1D

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- Emergency signaling devices
  - Exempt
  - Party popper
  - Snap caps and snappers
  - High power rocket motors
2. Identify codes and standards applicable to fireworks storage, display, and transportation
    - Storage
      - Code of Federal Regulations, Title 49, Part 173, Subpart C
      - California Code of Regulations, Title 13, Division 2, Chapter 6, Article 1
    - Display
      - California Health and Safety Code, sections 12552 and 12553
      - California Fire Code, Chapter 33
      - California Code of Regulations, Title 19, Division 1, Chapter 6
    - Transportation
      - Code of Federal Regulations, Title 49
  3. Describe types of licenses and permits required for fireworks storage and display
  4. Observe, recognize problems with, and make decisions about fireworks storage and display
    - Requirements contained in California Code of Regulations, Title 19
    - Associated permits
      - Electrical permit
      - State Fire Marshal retail sales permit
      - AHJ (authority having jurisdiction) permit
    - Electrical power sources
    - Verification of age of sellers
    - Prohibition of alcohol and narcotics
    - No smoking
    - Booth construction type and location
    - Onsite fire extinguishers
    - Exiting
  5. Apply codes and standards related to fireworks storage and display

### Discussion Questions

1. Which fireworks are considered safe and sane?
2. Are safe and sane fireworks approved for use statewide?
3. When (dates and times) can someone sell safe and sane fireworks in California?
4. When might someone use an agriculture/wildlife firework?

### Activities

1. Activity 3-1: Fireworks Classifications

**CTS Guide Reference:** CTS 3-17

### Topic 3-2: Inspecting Public Fireworks Displays

#### Terminal Learning Objective

At the end of this topic, a student given applicable codes and standards and jurisdictional policies will be able to inspect a public fireworks display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives

1. Identify codes and standards applicable to public fireworks displays
2. Describe types of aerial fireworks
3. Describe types of licenses and permits required for public fireworks displays
  - Insurance
  - Licensed operator
  - Local permit
4. Describe fire and life safety aspects related to public fireworks displays
  - Firing methods
  - Mortars and aerial shells
  - Personal protective equipment
  - Post display procedures
  - Safety tools and equipment
  - Site location requirements
  - Storage requirements
5. Observe, recognize problems with, and make decisions about public fireworks displays
  - Well secured to prevent movement
  - Angled if necessary to permit proper trajectory and landing
  - Undamaged and in good condition
  - Properly sized for launch tube
  - Properly and completely loaded
6. Apply codes and standards related to public fireworks displays

#### Discussion Questions

1. What is considered an aerial display?
2. Who can operate a public display of fireworks?
3. Where would you find the shell size as related to the mortar? (California Code of Regulations, Title 19, Division 1, Chapter 6, Article 15, Section 999)

#### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-18

### Topic 3-3: Inspecting Proximate Fireworks Displays

#### Terminal Learning Objective

At the end of this topic, a student given applicable codes and standards and jurisdictional policies will be able to inspect a proximate fireworks or special effects display in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

#### Enabling Learning Objectives \*

1. Describe proximate fireworks and special effects
2. Identify codes and standards applicable to proximate fireworks or special effects displays
3. Describe types of licenses and permits required for proximate fireworks or special effects displays
4. Describe fire and life safety aspects related to proximate fireworks or special effects displays
  - Display requirements
  - Physical hazards
  - Storage requirements
  - Types of devices
  - General requirements for handling and use (NFPA 1126)
  - Specific requirements for various types of pyrotechnics
    - Fallout spheres
    - Distance from audience and other structures
    - Distance from overhead objects such as curtains, beams, etc.
    - Items projecting into the space of the sphere
    - Musicians, actors, or other participants within the sphere while device is fired
5. Observe, recognize problems with, and make decisions about proximate fireworks or special effects displays
6. Apply codes and standards related to proximate fireworks or special effects displays

#### Discussion Questions

1. What is considered close proximity?
2. Can you discharge fireworks inside a building?
3. What are the greatest concerns related to special effects shoots?
4. When should local authorities prohibit a special effects shoot?
5. What is the role of a fire safety officer at a special effects shoot?
6. What training is available to qualify an inspector to properly oversee a special effects event?

#### Activities

1. To be determined by the instructor.



**CTS Guide Reference:** CTS 3-19

\* This topic does not include buildings and facilities used for motion picture, television, and commercial production.

### Unit 4: Wildland Urban Interface

#### Topic 4-1: Inspecting Exterior Hazard Abatement on an Existing Property

##### Terminal Learning Objective

At the end of this topic, a student given applicable codes and standards and jurisdictional policies will be able to inspect exterior hazards abatement on an existing property in order to verify compliance with applicable codes and standards, and identify, document, and report deficiencies and mitigation measures in accordance with applicable codes and standards and jurisdictional policies.

##### Enabling Learning Objectives

1. Describe the wildland urban interface environment
2. Identify the history of fire in the wildland urban interface environment
3. Describe the consequences of severe wildland fire conditions on unmitigated wildland urban interface areas
  - Interface conflagrations will exceed fire suppression resource capabilities
  - Life loss
  - Property loss
  - Environmental impact
  - Economic impact
4. Identify factors impacting wildland fire behavior
  - Fuel
  - Topography
  - Weather
  - Heat transfer
    - Direct flame contact
    - Convection
    - Radiation
    - Ember transfer
    - Structure to structure
    - Fuel and fire laddering
    - Crown fire migration
5. Define fire hazard severity zone classifications
  - Moderate
  - High
  - Very High
6. Identify responsibility areas, including:
  - Local Responsibility Area (LRA)
  - State Responsibility Area (SRA)

- Federal lands
- 7. Describe methods for dealing with fire hazards associated with wildland urban interface environment
  - Prescriptive construction requirements found in California Building Code, Chapter 7A
  - Prescriptive fuel modification
  - Performance-based design
  - Master-planned communities
    - Construction features
    - Engineered fuel modification zone
- 8. Describe the components of a vegetation management plan
  - Defensible space
    - Size, distance and zones
  - Fuel modification
    - Changing existing plant materials
  - Fuel reduction
    - Reducing the amount of existing vegetation
  - Wildland urban interface maintenance
    - As required by the AHJ or in accordance with a fuel management plan
- 9. Observe, recognize problems with, and make decisions about exterior hazard abatement
- 10. Apply codes and standards related to wildland urban interface environment.

### Discussion Questions

1. What does WUI stand for?
2. How do weather conditions impact fire behavior?
3. How is fuel loading measured in a wildland urban interface environment?
4. What is aspect?
5. What are the types of fire transfer?
6. What are the differences between an SRA and an LRA?
7. Can an SRA be within city limits?
8. In which severity zones do the requirements of CBC chapter 7A apply?
9. What are the components of a vegetation management plan?
10. What are the components of a master-planned community in a WUI environment?
11. What construction features does chapter 7A of CBC modify for structures in a WUI environment?

### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 4-1

**Time Table**

Segment	Lecture Time	Activity Time	Total Unit Time
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration			
Lecture	00:30		
Activity 1-1: To be determined by instructor		00:00	
Topic 1-2: Fire Marshal Certification Process			
Lecture	00:30		
Activity 1-2: To be determined by instructor		00:00	
<b>Unit 1 Totals</b>	<b>1:00</b>	<b>00:00</b>	<b>1:00</b>
<b>Unit 2: Tents, Canopies, and Temporary Membrane Structures</b>			
Topic 2-1: Inspecting Tents, Canopies, and Temporary Membrane Structures			
Lecture	1:00		
Activity 2-1: To be determined by instructor		00:00	
<b>Unit 2 Totals</b>	<b>1:00</b>	<b>00:00</b>	<b>1:00</b>
<b>Unit 3: Fireworks and Explosives</b>			
Topic 3-1: Inspecting Safe and Sane Fireworks Retail Stands			
Lecture	3:00		
Activity 3-1: Fireworks Classifications		00:30	
Topic 3-2: Inspecting Public Fireworks Displays			
Lecture	2:30		
Activity 3-2: To be determined by instructor		00:00	
Topic 3-3: Inspecting Proximate Fireworks Displays			
Lecture	2:30		
Activity 3-3: To be determined by instructor		00:00	
<b>Unit 3 Totals</b>	<b>8:00</b>	<b>00:30</b>	<b>9:30</b>
<b>Unit 4: Wildland Urban Interface</b>			
Topic 4-1: Inspecting Exterior Hazard Abatement on an Existing Property			
Lecture	4:00		

## Fire Inspector 1D

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Segment	Lecture Time	Activity Time	Total Unit Time
Activity 4-1: To be determined by instructor		00:00	
<b>Unit 4 Totals</b>	<b>5:00</b>	<b>00:00</b>	<b>5:00</b>
<b>Lecture, Activity, and Unit Totals:</b>	<b>14:00</b>	<b>00:30</b>	<b>14:30</b>

### Course Totals

Segment Type	Time
Total Lecture Time (LT)	14:00
Total Activity Time (AT)	00:30
Total Testing Time (TT)	1:30
<b>Total Course Time</b>	<b>16:00</b>

# Fire Inspector 1D

## Activity 3-1

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### Fireworks Classifications

#### Activity 3-1

**Format:** Individual

**Time Frame:** 00:30

#### Instructions

1. Match each type of fireworks with the appropriate fireworks classification.

#### Fireworks Classifications

- Dangerous
- Safe and sane
- Agricultural/Wildlife
- Model rocket motor
- Emergency signaling device
- Exempt
- Party popper / Snap cap
- High power rocket motor

Type of Fireworks	Fireworks Classification
1. "Brick" of firecrackers	_____
2. Railroad fuse	_____
3. "Piccolo Pete" fountain	_____
4. Fourth of July sparkler	_____
5. Small cylindrical party favor with a pull cord	_____
6. Maritime signaling flare	_____
7. Type K rocket motor (2500 N-s force)	_____
8. "Bomb" used to frighten cows	_____
9. Small, paper-wrapped impact device	_____
10. Size 1/2A rocket motor	_____

# FIRE INSPECTOR 1

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## Certification Task Book 2014



California Department of Forestry and Fire Protection  
Office of the State Fire Marshal  
State Fire Training

# Fire Inspector 1

## Certification Task Book

**September 2019**

**Version: 1.0.0**

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This Certification Task Book includes the certification training standards included in the Fire Inspector 1 CTS Guide (2014) which is based on NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner (2014) Chapter 4  
Fire Inspector I.

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This book is published by State Fire Training

Cover photo courtesy of Dennis Mathisen, Roseville Fire Department

## Purpose and Process

The State Fire Training certification task book is a performance-based document. It lists the Experience, Rank or Position, and Job Performance requirements for certification.

### Purpose

Each certification task book focuses on a single State Fire Training job function certification. A certification task book identifies the minimum requirements necessary to perform the duties of that certification. Completion of a certification task book verifies that the candidate has the required experience, holds the required rank or position, and has demonstrated the job performance requirements necessary to obtain that certification.

### Responsibilities

#### Candidate Responsibilities

The candidate is the individual pursuing certification.

All candidates shall:

- Complete a block on the Signature Verification page with an original wet-ink signature.
  - No date shall be prior to the issuance date.
- Complete the Experience, Position, and Job Performance Requirements.
- Accurately record and maintain the certification task book.
- Sign and date the Candidate verification statement under the Authority segment with an original wet-ink signature.
- Retain a copy of the completed certification task book.
- Submit the completed certification task book to State Fire Training.

#### Evaluator Responsibilities

An evaluator is any individual who verifies that the candidate can satisfactorily execute a job performance requirement. A qualified evaluator is designated by the candidate's fire chief (or authorized designee) and shall possess the equivalent or higher-level certification. If no such evaluator is present within the organization, the fire chief (or authorized designee) shall designate an individual with more experience than the candidate and a demonstrated ability to execute the job performance requirements. A certification task book may have more than one evaluator.

All evaluators shall:

- Complete a block on the Signature Verification page with an original wet-ink signature.
- Review and understand the candidate's certification task book requirements and responsibilities.



- Verify the candidate’s successful completion of one or more job performance requirements through observation or review.
  - All Job Performance Requirements (JPR’s) shall be reviewed, validated and dated after issuance of the certification task book.
- Sign all appropriate lines in the certification task book with an original wet-ink signature to record demonstrated performance of tasks.

### Fire Chief Responsibilities

The fire chief (or authorized designee) is the individual who reviews and confirms the completion of a candidate’s certification task book.

The fire chief (or authorized designee) shall:

- Designate qualified evaluators.
- Complete a block on the Signature Verification page with an original wet-ink signature.
- Review the candidate’s certification task book requirements and responsibilities.
- Verify the candidate has obtained the appropriate signatures to verify successful completion of each job performance requirement.
  - Ensure that no signature or date is prior to the certification task book issuance date.
- Verify the experience segment is completed and sign the fire chief verification statement under Authority segment with an original wet-ink signature. If signing as an authorized designee, verify that your signature is on file with State Fire Training.

### Completion Process

When you receive your certification task book:

1. Thoroughly review the Experience, Rank or Position, and Job Performance Requirements segments to make sure that you understand them.
2. Confirm who will evaluate your job performance requirements with your fire agency.
3. Complete the Experience segment, if applicable.
4. Complete the Rank or Position segment.
5. Complete each requirement in the Job Performance Requirements segment and ensure that an evaluator signs and dates each one to verify completion. Also ensure that every evaluator is listed on the Signature Verification page.
6. Ask your fire chief (or authorized designee) to verify certification task book completion by signing the appropriate paragraph under Authority section.
7. Make a copy of the completed certification task book to retain with your personal records.
8. Mail the original certification task book to State Fire Training (see address below).

After receipt and successful review of your completed certification task book, State Fire Training will approve the certification task book and mail your certificate to you. State Fire Training retains the completed, authorized original certification task book in your career file.

If State Fire Training determines that your certification task book is incomplete State Fire Training will return insufficient components, replacement pages and a checklist indicating what needs to be completed.

**Do not submit this certification task book until you have:**

- Completed the Experience segment
- Fulfilled the Rank or Position segment
- Completed Job Performance Requirements
- Obtained all required signatures

**State Fire Training Mailing Address**

Office of the State Fire Marshal  
State Fire Training  
2251 Harvard Street, Suite 400  
Sacramento, CA 95815

## Completion Timeframe

State Fire Training aims to update certification task books on a five-year cycle. A certification task book in process is valid until State Fire Training issues a new certification task book for the same job function certification.

If a candidate does not complete a certification task book before the release of a new version, State Fire Training will send the candidate a task book revision supplement identifying any revisions or new requirements. The candidate must fulfill all requirements included in the revision supplement and submit the revision supplement with the original task book.

## Task Book Initiation

### Candidate Information

**Candidate:** \_\_\_\_\_

**SFT ID Number:** \_\_\_\_\_

**Fire Agency:** \_\_\_\_\_

**Issued By:** \_\_\_\_\_

**Issue Date:** \_\_\_\_\_

# Signature Verification

The following individuals have the authority to verify portions of this certification task book using the signature recorded below.

<b>Name:</b> _____	<b>Name:</b> _____
<b>Job Title:</b> _____	<b>Job Title:</b> _____
<b>Organization:</b> _____	<b>Organization:</b> _____
<b>Signature:</b> _____	<b>Signature:</b> _____
<b>Name:</b> _____	<b>Name:</b> _____
<b>Job Title:</b> _____	<b>Job Title:</b> _____
<b>Organization:</b> _____	<b>Organization:</b> _____
<b>Signature:</b> _____	<b>Signature:</b> _____
<b>Name:</b> _____	<b>Name:</b> _____
<b>Job Title:</b> _____	<b>Job Title:</b> _____
<b>Organization:</b> _____	<b>Organization:</b> _____
<b>Signature:</b> _____	<b>Signature:</b> _____
<b>Name:</b> _____	<b>Name:</b> _____
<b>Job Title:</b> _____	<b>Job Title:</b> _____
<b>Organization:</b> _____	<b>Organization:</b> _____
<b>Signature:</b> _____	<b>Signature:</b> _____

# Task Book Requirements

## Job Performance Requirements

All job performance requirements must be performed in accordance with the standards of the authority having jurisdiction (AHJ) or the National Fire Protection Association (NFPA), whichever is more restrictive.

For JPR's that are not part of a candidate's regular work assignment or are a rare event, the evaluator can develop a scenario or interview which supports the required task and evaluates the candidate to the stated standard.

**All Job Performance Requirements shall be reviewed, validated and dated after issuance of the certification task book.**

### Definition of Duties

1. Identify the codes that give a fire inspector legal authority to conduct inspections in the state of California, given California Health and Safety Code, California Code of Regulations Title 19, and California Code of Regulations Title 24. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

### Administration

2. Prepare inspection reports, given agency policy and procedures, and observations from an assigned field inspection, so that the report is clear and concise and reflects the findings of the inspection in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.2.1)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

3. Recognize the need for a permit, given a situation or condition, so that requirements for permits are communicated in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.2.2)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

4. Recognize the need for plan review, given a situation or condition, so that requirements for plan reviews are communicated in accordance with the applicable codes and standards and policies of the jurisdiction. (4.2.3)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

5. Investigate common complaints, given a reported situation or condition, so that complaint information is recorded, the AHJ-approved process is initiated, and the complaint is resolved. (4.2.4)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

6. Identify the applicable code or standard, given a fire protection, fire prevention, or life safety issue, so that the applicable document, edition, and section are referenced.

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

7. Participate in legal proceedings, given the findings of a field inspection or a complaint and consultation with legal counsel, so that all information is presented and the inspector's demeanor is professional.

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

### Field Inspection

8. Identify the occupancy classification of a single-use occupancy, given a description of the occupancy and its use, so that the classification is made according to the applicable codes and standards. (4.3.1)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

9. Compute the allowable occupant load of a single-use occupancy or portion thereof, given a detailed description of the occupancy, so that the calculated allowable occupant load is established in accordance with applicable codes and standards. (4.3.2)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

10. Inspect means of egress elements, given observations made during a field inspection of an existing building, so that means of egress elements are maintained in compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.3)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

11. Verify the type of construction for an addition or remodeling project, given field observations or a description of the project and the materials being used, so that the construction type is identified and recorded in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.4)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

12. Determine the operational readiness of existing fixed fire suppression systems, given test documentation and field observations, so that the systems are in an operational state, maintenance is documented, and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.5)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

13. Determine the operational readiness of existing fire detection and alarm systems, given test documentation and field observations, so that the systems are in an operational state, maintenance is documented, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction. (4.3.6)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

14. Determine the operational readiness of existing portable fire extinguishers, given field observations and test documentation, so that the equipment is in an operational state, maintenance is documented, and deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction. (4.3.7)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

15. Recognize hazardous conditions involving equipment, processes, and operations, given field observations, so that the equipment, processes, or operations are conducted and maintained in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.8)

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Date Completed

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Evaluator Verification

16. Compare an approved plan to an existing fire protection system, given approved plans and field observations, so that any modifications to the system are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.9)

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Date Completed

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Evaluator Verification

17. Verify that emergency planning and preparedness measures are in place and have been practiced, given field observations, copies of emergency plans, and records of exercises, so that plans are prepared and exercises have been performed in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.10)

---

Date Completed

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Evaluator Verification

18. Inspect emergency access for an existing site, given field observations, so that the required access for emergency responders is maintained and deficiencies are identified, documented, and corrected in accordance with the applicable codes, standards, and policies of the jurisdiction. (4.3.11)

---

Date Completed

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Evaluator Verification

19. Verify code compliance for incidental storage, handling, and use of flammable and combustible liquids and gases, given field observations and inspection guidelines from the AHJ, so that applicable codes and standards are addressed and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.12)

---

Date Completed

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Evaluator Verification



20. Verify code compliance for incidental storage, handling, and use of hazardous materials, given field observations, so that applicable codes and standards for each hazardous material encountered are addressed and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.13)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

21. Recognize a hazardous fire growth potential in a building or space, given field observations, so that the hazardous conditions are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.14)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

22. Verify fire flows for a site, given fire flow test results and water supply data, so that required fire flows are in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the applicable codes and standards and the policies of the jurisdiction. (4.3.16)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

23. Inspect a tent, canopy, or temporary membrane structure, given applicable codes and standards and jurisdictional policies, to verify that it complies with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

24. Inspect a safe and sane fireworks stand, given applicable codes and standards and jurisdictional policies, in order to verify that fireworks displays and storage comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

25. Inspect a public fireworks display, given applicable codes and standards and jurisdictional policies, in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

26. Inspect a proximate fireworks or special effects display, given applicable codes and standards and jurisdictional policies, in order to verify that fireworks storage, handling, and use comply with applicable codes and standards, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

### Wildland Urban Interface Environments

27. Inspect exterior hazards abatement on an existing property, given applicable codes and standards and jurisdictional policies, in order to verify compliance with applicable codes and standards, and identify, document, and report deficiencies and mitigation measures in accordance with applicable codes and standards and jurisdictional policies. (OSFM)

\_\_\_\_\_  
Date Completed

\_\_\_\_\_  
Evaluator Verification

## Experience

The candidate meets the following requirements for experience.

- Have a minimum of one year’s full-time paid experience or two years’ part-time paid experience in a Recognized Fire Agency in California as fire inspector or fire prevention officer
  
- Have completed a minimum of one inspection for each of the following occupancies

Occupancy Type	Address	Date
A-1		
A-2		
A-3		
B-Medical		
E		
F-1		
H-2 or H-3		
I-3		
M		
R-1		
R-2		

<b>R-2.1</b>		
<b>S-1 with High Piled Stock</b>		
<b>U</b>		

### Position

The candidate meets this qualifications for this level of certification. The position requirement is met when applicant fulfills the role of the specific duties as defined by the Fire Chief.

