

# FIRE INSPECTOR 2 (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 2 (2014)**

## **Certification Training Standards Guide**

### **NFPA 1031 (2014) Fire Inspector 2 and 3**

#### **January 2020 Edition**

This CTS guide utilizes NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014) Chapter 5 Fire Inspector 2 and Chapter 6 Fire Inspector 2I to provide the qualifications for State Fire Training's Fire Inspector 2 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.

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## 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 that 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 2

### Section 1: Definition of Duties

#### 1-1: Definition of Duties for Fire Inspector 2

##### Authority

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.2
  - Paragraph 5.3
  - Paragraph 5.4
  - Paragraph 6.2
  - Paragraph 6.3
2. *Office of the State Fire Marshal*

##### Given

1. Sections 5.2, 5.3, 5.4, 6.2, and 6.3 of NFPA 1031 (2014)

##### Requisite Knowledge and Skills

1. Identify the administrative duties of a Fire Inspector 2
  - Conducting research
  - Interpreting codes
  - Implementing policy
  - Testifying at legal proceedings
  - Creating forms and job aids
  - Recommending, creating, and evaluating policies and procedures for life safety inspections and code enforcement activities
2. Identify the field inspection duties of a Fire Inspector 2
  - Conducting code enforcement inspections
  - Analyzing new and existing structures and properties for construction, occupancy, fire protection, and exposures
  - Analyzing code compliance alternatives
  - Evaluating construction, occupancy, fire protection, and exposures
  - Evaluating emergency planning services
3. Identify the plan review duties of a Fire Inspector 2
  - Field verifying shop drawings, plans and construction documents to ensure that they meet the intent of applicable codes and standards for fire and life safety
4. Describe how one's ethics and core values impact the work environment

## **Fire Inspector II**

### Section 1: Definition of Duties

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#### **Job Performance Requirements**

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

## Section 2: Administration

### 2-1: Processing Permit Applications

#### Authority

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.2.1

#### Given

1. A specific request

#### Requisite Knowledge and Skills

1. *Describe* the permit application process
2. *Identify* applicable codes, standards, policies, and procedures of the jurisdiction
3. Apply requisite knowledge

#### Job Performance Requirements

Evaluate and process a permit application to issue or deny a permit in accordance with applicable codes and standards and jurisdictional policies.

## **2-2: Processing Plan Review Applications**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.2.2

### **Given**

1. A specific request

### **Requisite Knowledge and Skills**

1. *Describe* the plan review application process
2. *Discuss* the code requirements of the jurisdiction
3. *Identify* the policies and procedures of the jurisdiction
4. Communicate orally and in writing on matters related to code requirements, policies, and procedures of the jurisdiction

### **Job Performance Requirements**

Evaluate and process a plan review application in accordance with applicable codes and standards and jurisdictional policies.

## **2-3: Investigating Complex Complaints**

### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.2.3
2. *Office of the State Fire Marshal*

### **Given**

1. A reported situation or condition

### **Requisite Knowledge and Skills**

1. *Describe methods and procedures to record, validate, and resolve complex complaints*
2. *Identify applicable codes, standards, and policies adopted by the jurisdiction*
3. *Discuss how political pressures impact complaint investigation and resolution*
4. *Interpret codes and standards as they apply to the resolution of a complex complaint*
5. *Recognize problems during the investigation of a complex complaint*
6. *Refer complaints to other agencies when required*

### **Job Performance Requirements**

Investigate complex complaints in order to record complaint information, initiate the investigation process, and resolve the complaint in accordance with application codes and standards and jurisdictional policies.

## **2-4: Recommending Modifications to Codes and Standards**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.2.4

### **Given**

1. A fire safety issue

### **Requisite Knowledge and Skills**

1. *Describe* state statutes or local ordinances establishing or empowering the agency to adopt, enforce, and revise codes and standards
2. *Describe* the legal instruments establishing or adopting codes and standards
3. *Describe* the development and adoption process for fire and life safety legislation or regulations
4. Recognize problems *with adopted codes and standards*, and collect and develop potential solutions
5. Identify cost/risk benefits *of modifying codes and standards*

### **Job Performance Requirements**

Recommend modifications to the adopted codes and standards of the jurisdiction that address a problem, need, or deficiency.

## **2-5: Recommending Policies and Procedures for Inspection Services**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.2.5

### **Given**

1. Management objectives

### **Requisite Knowledge and Skills**

1. *Identify* the policies and procedures of the jurisdiction related to code enforcement
2. *Describe* sources of detailed and technical information relating to fire protection and life safety
3. Identify approved construction methods and materials related to fire safety
4. Read and interpret construction plans and specifications
5. Educate *supervisors in the need for new policies and procedures*
6. Conduct research *in order to gather or create supporting documentation*
7. Recognize problems *with existing policies and procedures*

### **Job Performance Requirements**

Recommend policies and procedures for delivering inspection services that are in accordance with jurisdictional policies and follow due process of the law.

## 2-6: Generating Written Appeals Correspondence

### Authority

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.2.1

### Given

1. A request for an appeal

### Requisite Knowledge and Skills

1. *Discuss* the established procedure for modification of applicable codes and standards *for the jurisdiction*
2. *Identify* the judicial review process *for the jurisdiction*
3. *Describe* the established appeals procedure *for the jurisdiction*
4. Interpret codes and standards and communicate requirements *via written appeals correspondence*
5. Evaluate *requests for appeal and make decisions related to the appeals process*
6. Issue written reports *as required by jurisdictional appeals procedure*

### Job Performance Requirements

Generate written correspondence related to the issuance of appeals that clearly addresses the issue and is appropriate for the intended audience.



## **2-7: Proposing Technical Reference Material Acquisition**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.2.5

### **Given**

1. A scope of responsibility
2. Budget limitations
3. Specific code-related issues

### **Requisite Knowledge and Skills**

1. *Identify* types and sources of publications, including:
  - Approval and listings guides
  - Codes and standards
  - Technical references
2. Recognize the need for materials
3. Identify correct materials *for specific needs*
4. Calculate budget impact *of material acquisition*
5. Make decisions regarding *acquisition* priorities

### **Job Performance Requirements**

Propose the acquisition of technical reference materials that meet specific needs.

## **2-8: Enforcing Permit Regulations**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.2.6

### **Given**

1. A permit application or report of a violation
2. Applicable codes and standards *and policies of the jurisdiction*

### **Requisite Knowledge and Skills**

1. *Describe* legal authority for permit issuance and revocation
2. *Identify* applicable codes and standards adopted by the jurisdiction
3. Make decisions *about permit violations and communicate as necessary to enforce regulations*
4. Evaluate consequences of improper enforcement

### **Job Performance Requirements**

Enforce permit regulations in accordance with applicable codes and standards and jurisdictional policies and mitigate violations.

## **2-9: Initiating Legal Action**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.2.7

### **Given**

1. A description of a violation
2. A legal opinion

### **Requisite Knowledge and Skills**

1. *Describe* legal procedure for fire code enforcement
2. *Discuss* authority and limitations of police powers
3. Address legal action in accordance with the policies and procedures of the jurisdiction

### **Job Performance Requirements**

Initiate legal action related to a fire code violation in accordance with jurisdictional policies and due process of the law.

## **2-10: Evaluating Inspection Reports**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.2.9

### **Given**

1. Applicable codes, standards, policies, and procedures of the jurisdiction

### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction *and their interrelationships*
2. *Identify* various sources for additional reference materials related to code enforcement
3. *Describe how to evaluate completed inspection reports, forms, and checklists*
4. *Demonstrate* familiarity with code-related research
5. Compare code requirements of a jurisdiction with prepared *inspection* reports
6. Provide corrective information or correction *to subordinate's inspection reports* where necessary

### **Job Performance Requirements**

Evaluate inspection reports and completed forms and checklists for correct, clear, and concise information.

## Section 3: Field Inspection

### 3-1: Computing the Maximum Occupant Load of a Multi-use Building

#### Authority

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.1

#### Given

1. Field observations or a description of *a building's* uses

#### Requisite Knowledge and Skills

1. *Describe* how to calculate occupant loads for an occupancy and for building use
2. *Describe* code requirements, regulations, operational features, and fire hazards presented by various occupancies
3. Calculate occupant loads
4. Identify occupancy factors related to various occupancy classifications
5. Use measuring tools, *including a calculator, to compute the maximum allowable occupant load of a multi-use building*

#### Job Performance Requirements

Compute the maximum allowable occupant load of a multi-use building in accordance with applicable codes and standards.

### **3-2: Classifying Occupancy in a Mixed-use Building**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.2

#### **Given**

1. A description of *a building's* uses

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

1. *Describe* the occupancy classification, applicable codes and standards, operational features, and fire hazards presented by various occupancies
2. Interpret code requirements and recognize building uses that fall into each occupancy classification

#### **Job Performance Requirements**

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

### **3-3: Evaluating Buildings**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.3.3
2. *Office of the State Fire Marshal*

#### **Given**

1. An approved set of plans
2. Construction features

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

1. *Describe how to evaluate a building's area, height, and occupancy classification*
2. *Describe building construction with an emphasis on fire-rated construction*
3. *Describe how to evaluate and analyze construction methods and assemblies for fire rating*
4. *Interpret analysis of test results*
5. *Discuss manufacturer's specifications*
6. Identify characteristics of each type of building construction and occupancy classification

#### **Job Performance Requirements**

Evaluate a building's area, height, occupancy classification, and construction type to verify the building is in accordance with applicable codes and standards.

### **3-4: Evaluating Fire, Life Safety, and Property Protection Equipment**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.4

#### **Given**

1. Field observations of the facility and documentation
2. The hazards protected
3. System specifications

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

1. *Identify* applicable codes and standards for fire protection systems
2. *Discuss* basic physical science as it relates to fire behavior and fire suppression
3. *Discuss* implications and hazards associated with system operation
4. *Describe* installation techniques and acceptance inspection
5. *Describe* testing and reports of maintenance of completed installations
6. *Describe* the use and function of various systems
7. Recognize problems *with fire protection systems and equipment*
8. Use codes and standards *to evaluate fire protection systems and equipment*
9. Read reports, plans, and specifications *to determine whether life safety and property protection measures are appropriate for the protected occupancies or hazards*

#### **Job Performance Requirements**

Evaluate fire protection systems and equipment provided for life safety and property protection to approve them for the protected occupancy or hazard.



### **3-5: Analyzing Egress Elements**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.5

#### **Given**

1. Observations made during a field inspection

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

1. *Describe* acceptable means of egress devices
2. Calculate egress requirements
3. Make decisions related to the adequacy of egress

#### **Job Performance Requirements**

Analyze the egress elements of a building or portion of a building to verify the provision and location of egress elements in accordance with applicable codes and standards and identify, document, and report deficiencies in accordance with jurisdictional policies.

### **3-6: Evaluating Hazardous Conditions Involving Equipment, Processes, and Operations**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.6

#### **Given**

1. Field observations
2. Documentation

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

1. *Identify* applicable codes and standards
2. *Describe* accepted fire protection practices
3. *Identify ignition sources related to hazardous conditions, equipment, and processes*
4. *Describe* safe housekeeping practices
5. *Identify* additional reference materials related to protection of hazardous processes and code enforcement
6. Observe *hazardous conditions created by installation of equipment, processes and operations*
7. Recognize problems *with equipment, processes, and operations involving hazardous conditions*
8. Interpret codes and communicate *deficiencies in accordance with the policies of the AHJ*

#### **Job Performance Requirements**

Evaluate hazardous conditions involving equipment, processes, and operations to verify installation in accordance with applicable codes and standards and identify, document, and report deficiencies in accordance with jurisdictional policies.

### **3-7: Evaluating Emergency Planning and Preparedness Procedures**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.3.7
2. *Office of the State Fire Marshal*

#### **Given**

1. Existing or proposed plans
2. Procedures and applicable codes and standards

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

1. *Describe* the occupancy requirements for emergency evacuation plans
2. *Describe* fire safety programs for crowd control
3. *Identify* the roles of agencies and individuals in implementation and development of emergency plans
4. *Describe how to evaluate emergency planning and preparedness procedures to determine applicability to the facility*
5. Compare submitted plans and procedures with applicable codes and standards adopted by the jurisdiction

#### **Job Performance Requirements**

Evaluate emergency planning and preparedness procedures to determine compliance.

### **3-8: Verifying Code Compliance for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.8

#### **Given**

1. Field observations
2. Inspection guidelines from the authority having jurisdiction

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

1. *Describe the properties and hazards of flammable and combustible liquids and gases*
2. *Discuss material safety data sheet*
3. *Describe safe handling practices for flammable and combustible liquids and gases*
4. *Identify applicable codes and standards*
5. *Describe fire protection systems and equipment approved for the material*
6. *Describe fire behavior as it relates to flammable and combustible liquids and gases*
7. *Identify safety procedures*
8. *Identify storage compatibility requirements*
9. *Identify typical fire hazards associated with processes or operations utilizing flammable and combustible liquids*
10. *Observe and recognize problems with storage, handling, and use of flammable and combustible liquids and gases*
11. *Interpret codes in order to make decisions related to the compliant storage, handling, and use of flammable and combustible liquids and gases*
12. *Communicate deficiencies in accordance with applicable codes and standards and jurisdictional policies*

#### **Job Performance Requirements**

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

### 3-9: Evaluating Code Compliance for the Storage, Handling, and Use of Hazardous Materials

#### Authority

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.9

#### Given

1. Field observations

#### Requisite Knowledge and Skills

1. *Describe the properties and hazards associated with hazardous materials*
2. *Discuss material safety data sheet*
3. *Describe safe handling, use, and dispensing practices for hazardous materials*
4. *Identify applicable codes and standards*
5. *Describe fire protection systems and equipment approved for the material*
6. *Describe fire behavior as it relates to hazardous materials*
7. *Identify safety procedures*
8. *Describe chemical reactions*
9. *Identify storage compatibility requirements*
10. *Describe how to determine maximum allowable quantities (MAQ)*
11. *Describe control areas*
12. *Describe how to evaluate control areas as they relate to hazardous materials storage*
13. *Describe general requirements for quantities not exceeding maximum allowable quantities per control area*
14. *Identify fire hazards associated with processes or operations utilizing hazardous materials*
15. *Describe the requirements for, and contents of, a Hazardous Materials Management Plan*
16. *Observe and recognize problems with storage, handling, and use of hazardous materials*
17. *Interpret codes in order to make decisions related to the compliant storage, handling, and use of hazardous materials*
18. *Communicate deficiencies in accordance with applicable codes and standards and jurisdictional policies*

#### Job Performance Requirements

Evaluate code compliance for the storage, handling, and use of hazardous materials to identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-10: Determining Fire Growth Potential**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.3.10
2. *Office of the State Fire Marshal*

#### **Given**

1. Field observations or plans

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

1. *Describe* flame spread and smoke development ratings of:
  - Contents
  - Interior finishes
  - Building construction elements
  - Decorations
  - Decorative materials
  - Furnishings
2. *Describe how to determine compliance of contents, interior finish, and construction elements*
3. *Describe how to identify, document, verify, and report or resolve deficiencies*
4. *Discuss* safe housekeeping practices
5. *Communicate deficiencies in building contents, interior finishes, and construction elements*
6. *Interpret* codes and standards *related to building contents, interior finishes, and construction elements*
7. *Recognize* hazardous conditions *and make decisions regarding corrections*

#### **Job Performance Requirements**

Determine fire growth potential in a building or space by evaluating the contents, interior finishes and construction elements for compliance, and identify, document, and correct deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-11: Verifying Installation, Inspection, and Testing of Life Safety Systems and Building Services Equipment**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.11

#### **Given**

1. A performance-based design

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

1. *Describe* applicable codes and standards for installation and testing of fire protection systems
2. *Describe how to verify that* means of egress *are installed, inspected, and tested to perform as designed*
3. *Describe how to verify that* building services equipment *is installed, inspected, and tested to perform as designed*
4. Witness and document tests of fire protection systems and building services equipment

#### **Job Performance Requirements**

Verify that life safety systems and building services equipment are installed, inspected, and tested to perform as described in the engineering documents and the operations and maintenance manual that accompanies the design to identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-12: Verifying Code Compliance of Building Service Equipment and Operations**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.3.12

#### **Given**

1. Field observations

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

1. *Describe* types, installation, maintenance, and use of building service equipment
2. *Describe* the operation of smoke and heat vents
3. *Describe* the installation of kitchen cooking equipment (including hoods and ducts), laundry chutes, elevators, and escalators
4. *Identify* applicable codes and standards adopted by the jurisdiction
5. *Observe and recognize problems with HVAC and other building service equipment and operations*
6. Interpret codes and standards *related to building service equipment and write reports to document deficiencies*

#### **Job Performance Requirements**

Verify code compliance of heating, ventilation, air conditioning, and other building service equipment and operations to verify maintenance in accordance with applicable codes and standards and identify, document, and report deficiencies in accordance with jurisdictional policies.



### **3-13: Assessing Alternative Methods to Adjust Occupant Loads**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.1

#### **Given**

1. A description of an area, building, or portion of a building and its intended use

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

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Discuss* occupancy requirements *for adjusting occupant loads*
3. *Describe impact of* egress requirements *on alternative methods to adjust occupant loads*
4. *Describe how to evaluate* evacuation plan procedures *related to adjusted occupant loads*
5. Evaluate evacuation plan procedures
6. Read plans and reports, interpret codes and standards, and make decisions related to adjusting occupant loads
7. Analyze performance-based reports

#### **Job Performance Requirements**

Assess alternative methods to adjust occupant loads to keep the occupant load in accordance with applicable codes and standards.

### **3-14: Proposing Correction for Egress Deficiencies**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 6.3.2
2. *Office of the State Fire Marshal*

#### **Given**

1. A list of means of egress deficiencies in a building
2. The proposed correction

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

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Describe impact of* occupancy requirements *on egress deficiencies*
3. *Describe* means of egress requirements *for a building or portion of a building*
4. *Read and analyze* plans and *performance-based* reports
5. Interpret codes and standards *related to egress deficiencies and make decisions regarding correction*

#### **Job Performance Requirements**

Evaluate each deficiency and its proposed correction for compliance with applicable codes and standards, and identify, document, and report egress deficiencies in accordance with jurisdictional policies.

### **3-15: Evaluating Construction Type of an Addition or Remodel**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 6.3.3
2. *Office of the State Fire Marshal*

#### **Given**

1. A description of a building and its use

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

1. *Identify* policies, procedures, and applicable codes and standards adopted by the jurisdiction
2. *Describe the impact of* occupancy requirements *on construction type*
3. *Describe* construction methods
4. *Describe building construction features required in a wildland urban interface environment, including:*
  - *Ignition-resistant construction*
  - *Roofing*
  - *Vents*
  - *Exterior coverings*
  - *Exterior doors and windows*
  - *Decking*
  - *Ancillary structures*
5. Recognize problems *with the construction type of an addition or remodeling project*
6. Read reports and plans *as necessary to evaluate construction type*

#### **Job Performance Requirements**

Evaluate the construction type required for an addition or remodeling project based on applicable codes and standards, and identify, document, and report deficiencies in accordance with jurisdictional policies.

### **3-16: Evaluating Alternative Protection Measures of Equipment, Operations, and Processes**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.4

#### **Given**

1. Deficiencies noted during a field inspection of a facility
2. Proposed alternative methods

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

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Describe* hazards of the process or operation
3. *Discuss* fire protection systems *requirements*
4. *Identify* inherent hazards *associated with equipment, operations, and processes*
5. *Identify necessary* safety precautions
6. *Observe and recognize problems with alternative protection measures for equipment, operations, and processes*
7. *Verify compliance of alternative protection measures for equipment, operations, and processes in order to resolve deficiencies*

#### **Job Performance Requirements**

Evaluate alternative protection measures of equipment, operations, and processes to verify that the level of protection they provide complies with the intent of applicable codes and standards.

### **3-17: Evaluating Fire Protection Plans and Practices**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.5

#### **Given**

1. A field report describing a facility housing a complex process or operation

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

1. *Identify the fire growth potential associated with complex processes or operations*
2. *Identify the fire protection levels for various complex processes or operations*
3. *Analyze various scenarios to determine appropriate fire protection level*
4. *Describe evacuation procedures*
5. *Observe and recognize problems with fire protection plans and practices*
6. *Evaluate hazards and verify appropriate protection level in accordance with applicable codes and standards and jurisdictional policies*

#### **Job Performance Requirements**

Evaluate fire protection plans and practices to determine the fire growth potential for all areas and verify that the protection level is appropriate for the hazard in accordance with applicable codes and standards and jurisdictional policies.

### **3-18: Recommending Criteria for Developing Emergency Plans and Procedures**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 6.3.6
2. *Office of the State Fire Marshal*

#### **Given**

1. A description of a building and its use

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

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Discuss* the purpose, use, and applicability of evacuation plans
3. *Identify information sources and recommend criteria for emergency evacuation plans*
4. *Describe* human behavior during fires and other emergencies
5. Read *emergency plans and reports*
6. Recognize problems *with emergency plans and procedures*

#### **Job Performance Requirements**

Recommend criteria for developing emergency planning and procedures in accordance with applicable codes and standards and jurisdictional policies.

### **3-19: Evaluating Compliance Alternatives for the Storage, Handling, and Use of Hazardous Materials**

#### **Authority**

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 6.3.7
2. *Office of the State Fire Marshal*

#### **Given**

1. Field inspection reports
2. Proposed compliance alternatives

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

1. *Identify* other agencies that have requirements and jurisdiction related to hazardous materials
2. Observe and recognize problems *with compliance alternatives for the storage, handling, and use of hazardous materials*
3. *Describe how to evaluate compliance alternatives for the storage, handling, and use of hazardous materials to ensure compliance with the intent of applicable codes and standards and jurisdictional policies*
4. Read plans, reports and material safety data sheets *as required to evaluate compliance alternatives for the storage, handling, and use of hazardous materials*

#### **Job Performance Requirements**

Evaluate compliance alternatives for the storage, handling, and use of hazardous materials to verify that their level of safety complies with the intent of applicable codes and standards and jurisdictional policies.

### **3-20: Evaluating Compliance Alternatives for the Storage, Handling, and Use of Flammable or Combustible Liquids and Gases**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.8

#### **Given**

1. Field inspection reports
2. Proposed compliance alternatives

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

1. *Identify* other agencies that have requirements and jurisdiction related to flammable and combustible liquids and gases
2. Read plans, reports and material safety data sheets *as required to evaluate compliance alternatives for the storage, handling, and use of flammable or combustible liquids and gases*

#### **Job Performance Requirements**

Evaluate compliance alternatives for the storage, handling, and use of flammable or combustible liquids and gases so that their storage, handling, and use comply with the intent of applicable codes and standards and jurisdictional policies.



### **3-21: Witnessing an Acceptance Test for an Integrated Fire Protection System**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.9

#### **Given**

1. Approved shop drawings
2. Test protocols
3. An installed system

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

1. *Describe* acceptance test procedures
2. *Identify* appropriate codes and standards
3. Supervise the performance of acceptance tests

#### **Job Performance Requirements**

Witness an acceptance test for an integrated fire protection system to evaluate for compliance, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

### **3-22: Developing Emergency Access Criteria**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.10

#### **Given**

1. The jurisdiction's emergency fire apparatus
2. The jurisdiction's fire suppression practices

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

1. *Discuss* emergency access and accessibility requirements of the jurisdiction
2. *Describe* the performance specifications related to access of emergency vehicles of the jurisdiction
3. Identify emergency access requirements contained in the applicable codes and standards
4. Make decisions as required to develop emergency access criteria
5. Use measuring tools *to evaluate emergency fire apparatus for use in planning emergency access criteria*

#### **Job Performance Requirements**

Develop emergency access criteria to deliver fire suppression services in accordance with jurisdictional policies.

### **3-23: Evaluating Compliance of Life Safety Systems and Building Services Equipment with Construction Documents**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 6.3.11

#### **Given**

1. A performance-based design

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

1. *Identify* applicable codes and standards for installation and testing of fire protection systems, means of egress, and building services equipment
2. Witness and document tests of fire protection systems and building services equipment

#### **Job Performance Requirements**

Evaluate compliance with construction documents to ensure after installation, inspection, and testing, that life safety systems and building services equipment perform as described in the engineering documents and the operations and maintenance manual that accompanies the design; and to identify, document, and report deficiencies in accordance with the policies of the jurisdiction.

## Section 4: Plan Review

### 4-1: Classifying the Occupancy of a Building

#### Authority

1. NFPA 1031 *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* (2014)
  - Paragraph 5.4.1
2. *Office of the State Fire Marshal*

#### Given

1. A building's plans and specifications
2. A building's description

#### Requisite Knowledge and Skills

1. *Describe types of plan views and system plans*
2. *Describe the systematic plan review process*
3. *Describe how to identify an occupancy classification from a set of plans*
4. *Identify applicable codes, standards, and regulations*
5. *Discuss how operational features may impact occupancy classification*
6. *Identify fire hazards presented by various occupancies*
7. *Read plans to determine occupancy classification*

#### Job Performance Requirements

Classify the occupancy of a building in accordance with applicable codes and standards and jurisdictional policies.

## **4-2: Computing Maximum Allowable Occupancy Loads**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.4.2

### **Given**

1. A floor plan of a building or portion of a building

### **Requisite Knowledge and Skills**

1. *Describe* how to calculate occupant loads for an occupancy and building use
2. *Identify* codes, requirements, and regulations
3. *Discuss* how operational features such as fixed seating *impact occupant load*
4. *Identify* fire hazards presented by various occupancies
5. Calculate accurate occupant loads
6. Identify occupancy factors related to various occupancy classifications
7. Use measuring tools, *including a calculator*, to compute maximum allowable occupancy loads
8. Read plans to compute maximum allowable occupancy loads

### **Job Performance Requirements**

Compute the maximum allowable occupant load of a building or portion of the building in accordance with applicable codes and standards and jurisdictional policies.

### **4-3: Reviewing Proposed Installation of Fire Protection Systems**

#### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.4.3

#### **Given**

1. Shop drawings and system specifications for a process or operation

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

1. *Describe* proper selection, distribution, location, and testing of portable fire extinguishers
2. *Discuss* methods used to evaluate the operational readiness of water supply systems used for fire protection
3. *Describe* the evaluation and testing of automatic sprinkler, water spray, and standpipe systems and fire pumps
4. *Describe* the evaluation and testing of fixed fire suppression systems
5. *Describe* the evaluation and testing of automatic fire detection and alarm systems and devices
6. Read basic floor plans or shop drawings
7. Identify symbols used by the jurisdiction

#### **Job Performance Requirements**

Review the proposed installation of fire protection systems for code compliance and installation in accordance with the approved drawings, and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.

## **4-4: Reviewing Installed Fire Protection Systems**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.4.4

### **Given**

1. An installed system
2. Shop drawings
3. System specifications for a process or operation

### **Requisite Knowledge and Skills**

1. *Describe* proper selection, distribution, location, and testing of portable fire extinguishers
2. *Discuss* methods used to evaluate the operational readiness of water supply systems used for fire protection
3. *Describe* the evaluation and testing of automatic sprinkler, water spray, and standpipe systems, and fire pumps
4. *Describe* the evaluation and testing of fixed fire suppression systems
5. *Describe* the evaluation and testing of automatic fire detection and alarm systems and devices
6. Read basic floor plans or shop drawings

### **Job Performance Requirements**

Verify that the fire protection systems are installed in compliance with code and in accordance with the approved drawings, and identify, document, and report deficiencies in accordance with applicable codes, standards, and jurisdictional policies.

## **4-5: Verifying Means of Egress Elements**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner (2014)*

- Paragraph 5.4.5

### **Given**

1. A floor plan of a building or portion of a building

### **Requisite Knowledge and Skills**

1. *Identify* applicable codes and standards adopted by the jurisdiction
2. *Describe the* standard symbols used in plans *to denote means of egress*
3. *Discuss* field verification practices *used to confirm appropriate egress elements*
4. Read plans *as required to verify means of egress elements*
5. Research codes and standards *to verify means of egress elements*

### **Job Performance Requirements**

Verify the provision of means of egress elements; identify and check elements against applicable codes and standards; and identify, document, and report deficiencies in accordance with applicable codes and standards and jurisdictional policies.



## **4-6: Verifying Construction Type**

### **Authority**

NFPA 1031 *Standard for Professional Qualifications for Fire Inspectors and Plan Examiner* (2014)

- Paragraph 5.4.6

### **Given**

1. A set of approved plans and specifications

### **Requisite Knowledge and Skills**

1. *Discuss* building construction with an emphasis on fire-rated construction
2. *Describe* evaluation of methods of construction and assemblies for fire rating
3. *Interpret* analysis of test results
4. *Discuss* manufacturer's specifications
5. Identify characteristics of each type of building construction

### **Job Performance Requirements**

Verify that the construction type of a building or portion thereof complies with approved plans and applicable codes and standards.

# 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 2

CTS	Block	Addition	Justification	Source/Reference
2-3	RKS	Describe methods and procedures to record, validate, and resolve complex complaints	Added to clarify intent of JPR.	N/A
2-3	RKS	Discuss how political pressures impact complaint investigation and resolution	Added to clarify intent of JPR.	N/A
2-8	G	Added /and policies of the jurisdiction/.	Added to match language in JPR.	N/A
2-10	RKS	Describe how to evaluate completed inspection reports, forms, and checklists	Added to match language in JPR.	N/A
2-10	RKS	Added /to subordinate's inspection reports/.	Added to clarify intent of JPR.	N/A
3-3	RKS	Describe how to evaluate a building's area, height, and occupancy classification	Added to match JPR requirements.	N/A
3-3	RKS	Added /analyze/.	Added to increase level of learning required by JPR.	N/A
3-7	RKS	Describe how to evaluate emergency planning and preparedness procedures to determine applicability to the facility	Added to clarify intent of JPR.	N/A

**State Fire Training Content**

<b>CTS</b>	<b>Block</b>	<b>Addition</b>	<b>Justification</b>	<b>Source/Reference</b>
3-8	RKS	Added /and gases/.	Added to match JPR requirements.	
3-9	RKS	Added /use, and dispensing/.	Added to match JPR requirements/clarify NFPA intent.	N/A
3-9	RKS	Describe how to determine maximum allowable quantities (MAQ)	This task is not included in NFPA 1031 but is required by California law.	California Fire Code (2016)
3-9	RKS	Describe control areas	This task is not included in NFPA 1031 but is required by California law.	California Fire Code (2016)
3-9	RKS	Describe how to evaluate control areas as they relate to hazardous materials storage	This task is not included in NFPA 1031 but is required by California law.	California Fire Code (2016)
3-9	RKS	Describe general requirements for quantities not exceeding maximum allowable quantities per control area	This task is not included in NFPA 1031 but is required by California law.	California Health & Safety Code, Division 20, Chapter 6.95
3-9	RKS	Describe the requirements for, and contents of, a Hazardous Materials Management Plan	This task is not included in NFPA 1031 but is required by California law.	California Health & Safety Code, Division 20, Chapter 6.11
3-10	RKS	Describe how to determine compliance of contents, interior finish, and construction elements	Added to match JPR requirements.	N/A
3-10	RKS	Describe how to identify, document, verify, and report or resolve deficiencies	Added to match JPR requirements.	N/A
3-15	RKS	Describe building construction features required in a wildland urban interface environment, including:	This task is not included in NFPA 1031 but is required by California law.	<ul style="list-style-type: none"> <li>• California Building Code Chapter 7A (current)</li> <li>• Public Resources</li> </ul>

**State Fire Training Content**

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<b>CTS</b>	<b>Block</b>	<b>Addition</b>	<b>Justification</b>	<b>Source/Reference</b>
		<ul style="list-style-type: none"> <li>• Ignition-resistant construction</li> <li>• Roofing</li> <li>• Vents</li> <li>• Exterior coverings</li> <li>• Exterior doors and windows</li> <li>• Decking</li> <li>• Ancillary structures</li> </ul>		Code Section 4291
3-18	RKS	Identify information sources and recommend criteria for emergency evacuation plans	Added to clarify intent of JPR.	N/A
3-19	RKS	Describe how to evaluate compliance alternatives for the storage, handling, and use of hazardous materials to ensure compliance with the intent of applicable codes and standards and jurisdictional policies	Added to match JPR requirements.	N/A
4-1	RKS	Describe types of plan views and system plans	Added to clarify intent of JPR.	N/A
4-1	RKS	Describe the systematic plan review process	Added to clarify intent of JPR.	N/A

## Errata

### Code Key

#### Blocks

- G = Given
- RKS = Requisite Knowledge and Skills
- JPR = Job Performance Requirements
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#### Changes

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

Not Applicable

## Certification History

### January 2020

The September 2019 changes reflects updates based upon the 2014 edition of NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner. There were no significant changes found within NFPA 1031 Chapter 5 and Chapter 6. Some 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.