



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
STATE FIRE TRAINING**

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Date: January 9, 2026

To: Statewide Training and Education Advisory Committee
State Board of Fire Services

From: Chris Fowler, Chief of State Fire Training, OSFM
Allison L. Shaw, Editor, Sacramento State

SUBJECT/AGENDA ACTION ITEM:
Fire Plans Examiner (2024) (formerly Plan Examiner)

Recommended Actions:
Motion to Approve

Background Information:

This is the second reading of the curriculum, with no stakeholder requests for edits following the October 2025 STEAC meeting.

SFT updated the Fire Plans Examiner (2024) curriculum in alignment with National Fire Protection Association (NFPA) 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024). This curriculum was developed to ensure effective plan review in California fire agencies.

Analysis/Summary of Issue:

Name Change

SFT changed the certification title from Plan Examiner to Fire Plans Examiner to align with the NFPA standard on which it is based.

Fire Plans Examiner (2024) Curriculum Launch

SFT will release the Fire Plans Examiner (2024) curriculum on March 1, 2026.

Retirement of Plan Examiner (2014) Curriculum

Effective December 31, 2026, SFT will retire Plan Examiner (2014). On January 1, 2027, SFT will remove the curriculum from the SFT course catalog, and it will no longer be

available. Candidates pursuing Plan Examiner certification using the 2014 task book must complete and submit their Plan Examiner Certification Task Book (2014) postmarked on or before December 31, 2026.

Candidates who do not meet this deadline will be required to meet the Fire Plans Examiner (2024) certification requirements using the Fire Plans Examiner (2024) Certification Task Book.

CTS Guide

- Updated to the latest template
- Name change from Plan Examiner to Fire Plans Examiner to match NFPA 1030
- NFPA merged Plan Examiner I and Plan Examiner II into one standard called Fire Plans Examiner and moved the content from NFPA 1031: Standard for Professional Qualifications for Fire Inspector and Plan Examiner (chapters 7 and 8) to NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (chapter 8).
- NFPA removed the following standards in the transition from 1031 (2014) to 1030 (2024):
 - 8.3.2: Evaluating Proposed Passive Fire Protection Elements (SFT will keep this standard under OSFM authority)
 - 8.3.3: Evaluating Plans for a Process or Operation (SFT will keep this standard under OSFM authority)
 - 8.3.4: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases (SFT will keep this standard under OSFM authority)
- NFPA added the following standards in the transition from 1031 (2014) to 1030 (2024):
 - 8.3.11: Evaluating Fire Protection Plans and Practices Evaluating Fire Protection Plans and Practices Evaluating Fire Protection Plans and Practices
 - 8.3.12: Evaluating Compliance Approaches for Flammable or Combustible Liquids and Gases
 - 8.3.13: Evaluating Compliance Approaches for Hazardous Materials
 - 8.3.15: Evaluating Protection Measure Approaches for Equipment, Operations, and Processes
 - 8.3.19: Evaluating Building Service Equipment and Operations
 - 8.3.21: Evaluating Compliance with Construction Documents
- OSFM added the following standards:
 - 3-16: Evaluating the Need for Fire and Life Safety Protection Systems
 - 3-28: Navigating Plan Sets
- NFPA updated or modified the following standards in the transition from 1031 (2014) to 1030 (2024):
 - 7.2: Administration (now 8.2)
 - 7.2.1: Preparing Reports (now 8.2.1)
 - 7.2.2: Resolving Deficiencies (now 8.2.3)
 - 7.2.3: Processing Plan Review Documents (now 8.2.4)

- 7.2.4: Determining Applicable Codes and Standards (now 8.2.5)
- 7.3: Plans Review (now 8.3)
- 7.3.1: Identifying Requirements for Fire Protection or Life Safety Systems (now 8.3.1)
- 7.3.2: Verifying Occupancy Classification (now 8.3.3)
- 7.3.3: Verifying Construction Type (now 8.3.4)
- 7.3.4: Verifying Occupant Load (now 8.3.5)
- 7.3.5: Verifying Egress Provision (now 8.3.6)
- 7.3.6: Evaluating Fire Flow Compliance (now 8.3.7)
- 7.3.7: Evaluating Emergency Vehicle Access (now 8.3.8)
- 7.3.8: Recommending Plan Review Policies (now 8.3.9)
- 7.3.9: Participating in Legal Proceedings (now 8.3.10)
- 7.3.10: Evaluating Plans for Installing Fire Protection and Life Safety Systems (now 8.3.16)
- 8.2: Administration (merged with 8.2)
- 8.2.1: Creating Plan Review Checklists and Forms (now 8.2.2)
- 8.2.2: Developing Plan Review Policies and Procedures (now 8.3.9)
- 8.3: Plans Review (merged with 8.3)
- 8.3.1: Evaluating Design Concepts (now 8.3.2)
- 8.3.5: Evaluating Plans for Installing Fire Protection and Life Safety Systems (now 8.3.16)
- 8.3.6: Evaluating a Proposed Alternative Method for Compliance (now 8.2.6)
- 8.3.7: Evaluating Systems Integration (now 8.3.14)
- 8.3.8: Evaluating Plans for Storage, Handling, and Use of Hazardous Materials (now 8.3.17)
- 8.3.9 – Verifying Egress Element (now 8.3.6)
- 8.3.10: Evaluating a Plan with Special (High-piled Combustible) Storage Arrangements (now 8.3.18)
- 8.3.11: Evaluating Building Service Equipment and Operations (now 8.3.19)
- 8.3.12: Evaluating Performance-Based Design Concepts (now 8.3.20)

Course Plans (All)

- Updated to the latest template
- Changed maximum class size from 25 to 30 and added a new instructor/student ratio requirement of 1/15 for application. This will improve student learning and instructor access. Twenty-five to 30 students are too many for one instructor to effectively teach and facilitate the application activities.

Course Plan 1A: Building Plan Review

- Changed course delivery time from 26 hours (18 lecture, 6 application, 2 testing) to 28 hours (18.5 lecture, 7.5 application, 2 testing) to accommodate new course material.
- Added new Topic 2-4: Navigating Plan Sets to provide foundational information
- Added new Topic 2-5: Verifying Product Listings to provide foundational information

Course Plan 1B: Fire Prevention and Life Safety Systems Plan Review

- Changed course delivery time from 27 hours (18.5 lecture, 7.5 application, 1 testing) to 30 hours (19.5 lecture, 8.5 application, 2 testing) to accommodate additional time current instructors are using to cover the material.
- Added the following resources to the Instructor Resources:
 - *Plans Examiner for Fire and Emergency Services* (IFSTA, 2016)
 - NFPA 291: Recommended Practice for Water Flow Testing and Marking of Hydrants (current edition)
 - NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (current edition)
 - NFPA 1142: Standard on Water Supplies for Suburban and Rural Firefighting (current edition)
 - U.S. Fire Administration Water Supply Systems and Evaluation Methods Volume I: Water Supply System Concepts (FEMA, October 2008)
 - https://www.usfa.fema.gov/downloads/pdf/publications/water_supply_systems_volume_i.pdf
 - U.S. Fire Administration Water Supply Systems and Evaluation Methods Volume II: Water Supply System Concepts (FEMA, October 2008)
 - https://www.usfa.fema.gov/downloads/pdf/publications/water_supply_systems_volume_ii.pdf

Course Plan 1C: Hazards and Special Operations Plan Review

- Removed prerequisite course requirement to complete 1B before 1C. All students must take 1A first but can take 1B and 1C in any order after that.
- Changed course delivery time from 28 hours (20 lecture, 6.5 application, 1.6 testing) to 31 hours (22.5 lecture, 6.5 application, 2 testing) to accommodate new NFPA and OSFM content.
- Changed the following Instructor Resources:
 - Removed *California Wildfire Landscaping* (Maureen Gilmer, Taylor Publishing Company, 1994) and replaced it with *WUI Virtual Handbook for Fire Risk Assessment & Mitigation* (2nd edition, www.sfpe.org/wuihandbook/home, 2025)
 - Removed Plan Review Manual (International Code Council, Based on the 2009 International Building Code) and International Code Council Performance Code for Buildings and Facilities (ICC, 2009) – they fit better in Course Plan 1A and are getting dated
 - Added *Plans Examiner for Fire and Emergency Services* (IFSTA, 2016)
 - Added NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (current edition)

Certification Task Book

- Updated to the latest template
- For Fire Plans Examiner certification, SFT will only accept the 2024 courses. Anyone pursuing Plan Examiner certification under the 2014 curriculum will need to finish out that track and that task book. Certification candidates cannot mix 2014 courses with the 2024 task book and certification.
- SFT updated the experience requirement:

- 2014 Requirement (old): Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency as a Plan Examiner
- 2024 Requirement (new): Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency in a fire prevention role with plan review as their primary responsibility
- Added and removed job performance requirements to align with additions and deletions in the transition from NFPA 1031 to 1030.

Existing Registered Instructors

SFT Registered Instructors authorized to teach Plan Examiner (2014) must complete the following requirement to obtain authorization to teach Fire Plans Examiner (2024):

- Complete the Fire Plans Examiner webform available through SFT.

In Process Instructor Candidates

Candidates actively pursuing Plan Examiner (2014) instructor registration must submit all Plan Examiner (2014) instructor registration documentation postmarked on or before December 31, 2026. Anyone who applies to teach Fire Plans Examiner (2024) on or after January 1, 2027, will be required to meet the Fire Plans Examiner (2024) requirements.

Then SFT Registered Instructors authorized to teach Plan Examiner (2014) must complete the following requirement to obtain authorization to teach Fire Plans Examiner (2024):

- Complete the Fire Plans Examiner webform available through SFT.

New Instructor Registration

New instructor candidates shall meet the following requirements:

Category	Requirement
Instructor Registration	Be an OSFM Registered Instructor
Certification	Fire Plans Examiner (2024)
Education	<ul style="list-style-type: none"> ● Fire Plans Examiner 1A: Building Plan Review (2024) ● Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024) ● Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024) ● Statutes and Regulations (SFT- Completed within the last 10 years)
Experience	<ul style="list-style-type: none"> ● Has a minimum of three (3) years' full-time paid experience or six (6) year's volunteer or part-time paid experience in a recognized California fire agency in the position of Plan Examiner/Reviewer or Fire Inspector/Prevention Officer with the primary responsibility of performing plan checks ● Specific experience reviewing the following entities, with examples, as described in the chief's letter:

	<ul style="list-style-type: none"> ○ Fire suppression systems (sprinklers, fire pumps, standpipes, pre-engineered) ○ Life safety systems (fire alarms, ERCES) ○ Plans for operational permits ○ Storage, handling, and use of hazardous materials ○ Architectural, civil, mechanical, plumbing, and electrical drawings ○ Plans for performance-based design plans ○ Landscape and/or WUI plans
Chief's Letter	Provide a letter signed by their Fire Chief or authorized designee that verifies qualification to deliver Fire Plans Examiner curriculum.
Application	Submit an SFT Instructor Registration Application
Fee	Pay the registration fee



Fire Plans Examiner (2024) Implementation Plan

Issued: Month ##, 2025

OVERVIEW

This document is intended to provide information for all State Fire Training (SFT) stakeholders on the updated Fire Plans Examiner (2024) curriculum requirements. Stakeholders are encouraged to study this information carefully and seek clarification from SFT if questions arise.

The Fire Plans Examiner (2024) curriculum is presented as a Certification Fire Service Training and Education System (CFSTES) series. SFT updated the certification training standard (CTS) guide, course plans, and certification task book based on the current National Fire Protection Association (NFPA) standards:

- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)

IMPLEMENTATION

Candidates entering the SFT system should enroll in the 2024 Fire Plans Examiner courses and comply with the most current Fire Plans Examiner requirements.

New Curriculum	Hours
Fire Plans Examiner 1A: Building Plan Review (2024)	28 hours
Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)	30 hours
Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)	32 hours

Fire Plans Examiner (2024) Curriculum..... March 1, 2026

Retirement of Plan Examiner (2014) Curriculum December 31, 2026

Effective December 1, 2026, SFT will retire Plan Examiner (2014). On January 1, 2027, SFT will remove the curriculum from the SFT course catalog, and it will no longer be available.

Candidates pursuing Plan Examiner certification using the 2014 task book must complete and submit their Plan Examiner Certification Task Book (2014) postmarked on or before June 30, 2027.

Candidates who do not meet this deadline will be required to meet the Fire Plans Examiner (2024) certification requirements using the Fire Plans Examiner (2024) Certification Task Book.

INSTRUCTOR REQUIREMENTS

Instructor Registration..... March 1, 2026

Instructors for the Fire Plans Examiner (2024) curriculum must meet the SFT requirements for Registered Instructor. Instructors must have appropriate education and practical experience relating to the specific course content.

Existing Registered Instructors

SFT Registered Instructors authorized to teach Plan Examiner (2014) must complete the following requirement to obtain authorization to teach Fire Plans Examiner (2024):

- Complete the Fire Plans Examiner webform available through SFT.

In Process Instructor Candidates

Candidates actively pursuing Plan Examiner (2014) instructor registration must submit all Plan Examiner (2014) instructor registration documentation postmarked on or before December 31, 2026. Anyone who applies to teach Fire Plans Examiner (2024) on or after January 1, 2027, will be required to meet the Fire Plans Examiner (2024) requirements.

Then SFT Registered Instructors authorized to teach Plan Examiner (2014) must complete the following requirement to obtain authorization to teach Fire Plans Examiner (2024):

- Complete the title webform available through SFT.

New Instructor Registration

New instructor candidates shall meet the following requirements:

Category	Requirement
Instructor Registration	Be an OSFM Registered Instructor
Certification	Fire Plans Examiner (2024)
Education	<ul style="list-style-type: none">• Fire Plans Examiner 1A: Building Plan Review (2024)• Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)• Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)• Statutes and Regulations (SFT- Completed within the last 10 years)
Experience	<ul style="list-style-type: none">• Has a minimum of three (3) years' full-time paid experience or six (6) year's volunteer or part-time paid experience in a recognized California fire agency in the position of Plan Examiner/Reviewer or Fire Inspector/Prevention Officer with the primary responsibility of performing plan checks• Specific experience reviewing the following entities, with examples, as described in the chief's letter:

	<ul style="list-style-type: none">○ Fire suppression systems (sprinklers, fire pumps, standpipes, pre-engineered)○ Life safety systems (fire alarms, ERCES)○ Plans for operational permits○ Storage, handling, and use of hazardous materials○ Architectural, civil, mechanical, plumbing, and electrical drawings○ Plans for performance-based design plans○ Landscape and/or WUI plans
Chief's Letter	Provide a letter signed by their Fire Chief or authorized designee that verifies qualification to deliver Fire Plans Examiner curriculum.
Application	Submit an SFT Instructor Registration Application
Fee	Pay the registration fee

POTENTIAL AGENCY IMPACTS

Fire agencies desiring to use the Fire Plans Examiner (2024) curriculum as a requirement for their recruitment/promotion activities need to review the Fire Plans Examiner (2024) curriculum requirements to be sure that all agency training needs are met. After review, fire agencies should update their job specifications and recruitment documentation to reflect these new courses and certification requirements.

Accredited Regional Training Programs (ARTP), Accredited Local Academies (ALA), community colleges, and all other local delivery venues need to review the curriculum and seek approval from their curriculum committee / program sponsor, as appropriate. ARTPs should review the new Fire Plans Examiner (2024) curriculum and discuss potential impacts with their advisory committees.

Fire Plans Examiner

(NFPA 1030: Fire Plans Examiner)

Certification Training Standards Guide (2024)



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

Fire Plans Examiner

Certification Training Standards Guide (2024)

Publication Date: Month Year

This CTS guide utilizes the following NFPA standards to provide the qualifications for State Fire Training's Fire Plans Examiner (2024) curriculum:

- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)

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 Darwin Workman, CAL FIRE.

Published by State Fire Training.

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Draft

Acknowledgements

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

- Joe Tyler, Director
- Daniel Berlant, State Fire Marshal
- Chris Fowler, Chief of State Fire Training
- Mike Richwine, Chair, Statewide Training and Education Advisory Committee (STEAC); State Fire Marshal (Retired), CAL FIRE/Office of the State Fire Marshal

Cadre – 2025 Curriculum Development

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- Rocque Yballa, Division Chief (retired), Central County Fire Department

How to Read a CTS Guide

Overview

A curriculum training standard (CTS) guide lists the requisite knowledge, skills, and job performance requirements an individual must complete to become certified in a specific job function.

It also documents and justifies the OSFM-approved revisions to the curriculum's NFPA standard and identifies where each curriculum training standard is taught (course plan), tested (skill sheets), and validated (task book).

Individuals aspiring to meet State Fire Training's curriculum training standards must do so in accordance with the codes, standards, regulations, policies, and standard operating procedures applicable within their own agency or jurisdiction.

Format

Each curriculum training standard is comprised of eight sections.

Section Heading

Training standards are grouped by section headings that describe a general category. For example, the Fire Fighter 1 CTS guide includes the following section headings: NFPA Requirements, Fire Department Communications, Fireground Operations, and Preparedness and Maintenance.

Training Standard Title

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

Authority

The CTS guide references each individual 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 highlighted gray.

Job Performance Requirements

This segment includes a written statement that describes a specific job-related task, the items an individual needs to complete the task, and measurable or observable outcomes.

Requisite Knowledge

This segment lists the knowledge that an individual must acquire to accomplish the job performance requirement.

Requisite Skills

This segment lists the skills that an individual must acquire to accomplish the job performance requirement.

Content Modification

This table documents and justifies any revisions to the NFPA standard that the development or validation cadres make during the development of a CTS guide.

Cross Reference

This table documents where each training standard is taught (course plan), tested (skill sheets), and validated (task book).

Fire Plans Examiner

Section 1: Definition of Duties

1-1: Definition of Duties for a Fire Plans Examiner

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2 and 8.3

Job Performance Requirement

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

Requisite Knowledge

1. Identify the administrative duties of a fire plans examiner including review of plans, preparation of correspondence and plan review reports, communication with fire inspectors and emergency response personnel, handling of complaints, maintenance of records, participation in legal proceedings, identification of when additional expertise is required, and familiarity with procedures used by the AHJ to evaluate alternative methods
2. Identify the plans review duties of a fire plans examiner including analysis and approval of plans, specifications, and construction documents for buildings, processes, operations, and fire protection systems and equipment to ensure they meet the intent of applicable codes and standards in accordance with the policies and procedures of the AHJ

Requisite Skills

1. None

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 1-3	N/A	N/A

Section 2: Administration

2-1: Preparing Reports

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.1

Job Performance Requirement

Prepare reports, given observations from a plan review, so that reports are clear and concise and reflect the findings of a plan review in accordance with applicable codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe codes and standards
2. Describe legal requirements for plan review reports
3. Describe accepted report preparation practices, policies, and procedures of the AHJ

Requisite Skills

1. Conduct code-related research
2. Write reports

Content Modification

Block	Modification	Justification
RK3	Added "report preparation".	Added for clarification on the scope of "practices, policies, and procedures". (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-7	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 1

2-2: Creating Plan Review Checklists and Forms

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.2

Job Performance Requirement

Create plan review checklists and forms, given applicable codes, standards, and departmental policies and procedures, so that the materials developed address key issues and clearly express code requirements of the AHJ.

Requisite Knowledge

1. Describe plan review elements required by AHJ codes, standards, policies, and procedures

Requisite Skills

1. Organize, communicate, and design checklists

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-6	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 2

2-3: Resolving Deficiencies

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.3

Job Performance Requirement

Facilitate the resolution of deficiencies identified during a plan review, given a plan submittal and established policies and procedures of the jurisdiction, so that deficiencies are identified, documented, and reported to the plan submitter with applicable references to codes and standards.

Requisite Knowledge

1. Identify policies and procedures of the AHJ regarding the communication of discrepancies
2. Describe the appeals process
3. Identify codes and standards

Requisite Skills

1. Communicate orally and in writing

Content Modification

Block	Modification	Justification
JPR	Added “plan”.	Added to clarify scope of “submittal”. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-8	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 3

2-4: Processing Plan Review Documents

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.4
2. Office of the State Fire Marshal

Job Performance Requirement

Process plan review documents, given a submittal package, so that required permits are issued in accordance with AHJ policies and procedures.

Requisite Knowledge

1. Describe plan review policies and procedures of the AHJ
2. Identify conditions that require permits in accordance with the AHJ

Requisite Skills

1. Review submittal package for completeness

Content Modification

Block	Modification	Justification
JPR	Replaced “set of plans and specifications” with “submittal package”.	Submittal package is more comprehensive. There are more documents included in a submittal package than just plans and specifications. (2014)
JPR	Added “and procedures”.	There are many things documented beyond policies. (2024)
RK2	Added new knowledge component.	Municipal requirements may require additional permits. (2014)
RS1	Replaced “applications” with “submittal package”.	Submittal package is more comprehensive. There are more documents included in a submittal package than just plans and specifications. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-3	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 4

2-5: Determining Applicable Codes and Standards

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.5

Job Performance Requirement

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

Requisite Knowledge

1. Describe applicable codes and standards adopted by the AHJ
2. Describe the format of codes and standards
3. Describe the interrelationship of codes and standards
4. Describe procedures adopted by the organizations responsible for promulgating state and local regulations

Requisite Skills

1. Conduct code-related research
2. Apply codes and standards
3. Make decisions

Content Modification

Block	Modification	Justification
JPR	Added “or life safety”.	Fire plans examiners are responsible for more than just fire protection. (2014)
RK4	Changed “these documents” to “state and local regulations”.	Added for clarity and specificity. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 5

2-6: Evaluating a Proposed Alternative Method or Material for Compliance

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.2.6

Job Performance Requirement

Evaluate a proposed alternative method or material for compliance with applicable codes and standards, given supporting documentation of a design that does not meet prescriptive code requirements, so that the design meets the intent of applicable codes and standards.

Requisite Knowledge

1. Describe how a building should perform under adverse conditions, including the objectives and performance requirements reflecting the equivalent level of safety required by the AHJ or other performance-based regulation for a process or operation

Requisite Skills

1. Evaluate alternative proposals to prescriptive codes and standards

Content Modification

Block	Modification	Justification
RK1	Added "equivalent".	Added for clarity and specificity. This reflects what the code says. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 3-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 6

Section 3: Plans Review

3-1: Identifying Requirements for Fire Protection or Life Safety Systems

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.1

Job Performance Requirement

Identify the requirements for fire protection or a life safety system, given a submittal package, so that deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Identify applicable code requirements for fire and life safety systems, interior finishes, and third-party testing and evaluation

Requisite Skills

1. Read floor plans or shop drawings
2. Identify symbols used on a set of plans
3. Apply codes and standards

Content Modification

Block	Modification	Justification
JPR	Changed “set of plans” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
RK1	Added “fire and”.	Fire plans examiners are responsible for more than just life safety systems. (2014)
RS2	Added “on a set of plans”.	Added to clarify “symbols”. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-4 (RK1 – interior finishes) Fire Plans Examiner 1B (2024) <ul style="list-style-type: none">• Topic 3-1 Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 3-2 (RK1 – third-party testing and evaluation)	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 7

3-2: Evaluating Design Concepts

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.2

Job Performance Requirement

Evaluate a design concept, given a preliminary design presentation, so that the proposed concept meets the intent of applicable codes and standards in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe fire protection and life safety construction features
2. Describe codes and standards
3. Describe preliminary plan review procedures of the jurisdiction
4. Describe the approval process for alternative fire protection methodologies

Requisite Skills

1. Evaluate code compliance of conceptual designs

Content Modification

Block	Modification	Justification
RK1	Added “and life safety”.	Fire plans examiners are responsible for more than just fire protection. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 2-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 8

3-3: Verifying Occupancy Classification

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.3
2. Office of the State Fire Marshal

Job Performance Requirement

Verify the occupancy classification, given a submittal package, specifications, and a description of a building and its intended use, so that the classification is made in accordance with the applicable codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Identify occupancy classifications and their intended uses
2. Describe how to calculate occupant loads for an occupancy for building use
3. Describe code requirements
4. Describe regulations
5. Describe operational features
6. Describe fire hazards presented by various occupancies

Requisite Skills

1. Calculate occupant loads
2. Identify occupancy factors related to various occupancy types
3. Use measuring tools

Content Modification

Block	Modification	Justification
JPR	Changed “set of plans” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
JPR	Added “and procedures”.	Added for consistency across all JPRs.
RK1	Added new knowledge component.	This is baseline knowledge needed to complete JPR. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 9

3-4: Verifying Construction Type

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.4

Job Performance Requirement

Verify the construction type, given a submittal package, including the occupancy classification area, height, number of stories, and location, so that the building is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported.

Requisite Knowledge

1. Describe types of construction
2. Describe fire-rated construction components
3. Describe typical building construction methods and materials
4. Describe code requirements related to construction types

Requisite Skills

1. Read plans
2. Determine construction types
3. Conduct code-related research

Content Modification

Block	Modification	Justification
JPR	Changed “set of plans” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 10

3-5: Verifying Occupant Load

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.5

Job Performance Requirement

Verify the occupant load, given a submittal package, so that the maximum allowable occupant load is in accordance with applicable codes and standards.

Requisite Knowledge

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

Requisite Skills

1. Calculate occupant loads
2. Identify occupancy factors related to various occupancy types
3. Use measuring tools

Content Modification

Block	Modification	Justification
JPR	Changed “set of plans” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 11

3-6: Verifying Egress Provision

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.6
2. Office of the State Fire Marshal

Job Performance Requirement

Verify that egress elements are provided, given a submittal package, an area's identified use, and an occupant load, so that all egress elements and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe applicable codes and standards adopted by the AHJ
2. Identify standard symbols used in plans
3. Describe field verification practices
4. Describe occupancy egress requirements
5. Describe the relationship between fixed fire protection systems and egress requirements

Requisite Skills

1. Read plans
2. Research codes

Content Modification

Block	Modification	Justification
JPR	Changed "set of plans" to "submittal package".	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
JPR	Added "an area's identified use".	A fire plans examiner needs to know the use to verify proper egress. (2014)
JPR	Added "and procedures".	Added for consistency across all JPRs.
RK4	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)
RK5	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-6	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 12

3-7: Evaluating Fire Flow Compliance

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.7

Job Performance Requirement

Evaluate code compliance for required fire flow and hydrant location and spacing, given a submittal package, codes and standards, and fire flow test results, so that hydrants are correctly located, required fire flow is determined, and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Identify standard civil engineering symbols
2. Describe types of water supply and distribution systems
3. Describe water distribution system test methods
4. Describe characteristics of public and private water supply systems, water meters, backflow prevention, and other devices that can impact fire flow
5. Analyze the effects of friction loss and elevation on water flow
6. Describe the potential impact of state health regulations on fire flow
7. Describe applicable codes and standards related to fire flow in the AHJ

Requisite Skills

1. Interpret fire flow test results
2. Determine fire hydrant locations and spacing
3. Read fire flow graphs

Content Modification

Block	Modification	Justification
JPR	Changed “plan” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1B (2024) <ul style="list-style-type: none">• Topic 2-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 13

3-8: Evaluating Emergency Vehicle Access

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.8

Job Performance Requirement

Evaluate emergency vehicle access, given a submittal package, so that emergency access is provided in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe operating capabilities of fire department apparatus
2. Identify planning and zoning requirements
3. Identify emergency access and water supply requirements of applicable codes and standards

Requisite Skills

1. Interpret and use plan scale

Content Modification

Block	Modification	Justification
JPR	Changed “plan” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
JPR	Added “and procedures”.	Added for consistency across all JPRs.
RK1	Changed “requirements” to “capabilities”.	Departmental requirements are not consistent across the board because each department has its own equipment and capacity and works within that framework. (2014)
RK3	Added “and water supply”.	Vehicles and water supply are connected. Vehicles need access to the water supply. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-3	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 14

3-9: Developing Plan Review Policies and Procedures

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.9
2. Office of the State Fire Marshal

Job Performance Requirement

Develop policies and procedures for the administration of plan review functions, given management objectives, so that policies are defined and are in accordance with the legal obligations of the AHJ.

Requisite Knowledge

1. Describe legal requirements and the various systems of government that affect the fire plans examiner's duties
2. Describe AHJ requirements and sources of information and technical assistance used in the development of policies and procedures
3. Identify construction methods and materials related to fire safety

Requisite Skills

1. Read and interpret construction plans and specifications
2. Recognize deficiencies
3. Resolve conflicts
4. Make appropriate decisions

Content Modification

Block	Modification	Justification
RK1	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)
RS1	Added new skill item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 15

3-10: Participating in Legal Proceedings

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.10
2. Office of the State Fire Marshal

Job Performance Requirement

Participate in legal proceedings, given the findings of a plan review and consultation with legal counsel, so that testimony is factual and appropriate to the proceedings.

Requisite Knowledge

1. Describe legal requirements pertaining to evidence rules in the legal system
2. Identify types of legal proceedings
3. Describe appropriate courtroom demeanor

Requisite Skills

1. Maintain a professional demeanor
2. Listen
3. Differentiate facts from opinions

Content Modification

Block	Modification	Justification
RK3	Added new knowledge item.	This is vital knowledge to a successful courtroom appearance. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-9	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 16

3-11: Evaluating Fire Protection Plans and Practices

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.11

Job Performance Requirement

Evaluate fire protection plans and practices, given a submittal package describing a facility housing a complex process or operation, so that the fire growth potential for all areas is determined and the level of protection is appropriate to the hazard and in accordance with the applicable codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe fire behavior
2. Describe fire growth potential
3. Describe protection
4. Analyze scenarios
5. Describe evacuation procedures

Requisite Skills

1. Observe
2. Recognize deficiencies
3. Evaluate hazards

Content Modification

Block	Modification	Justification
JPR	Changed “field report describing” to “submittal package for”.	You can’t evaluate plans and practices without a plan submittal package. A field report won’t have all the information needed to complete the task. (2024)
JPR	Added “and procedures”.	Added for consistency across JPRs.

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 17

3-12: Evaluating Compliance Approaches for Flammable or Combustible Liquids and Gases

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.12

Job Performance Requirement

Evaluate compliance approaches for the storage, handling, and use of flammable or combustible liquids and gases, given field inspection reports and proposed compliance alternatives, so that the storage, handling, and use is provided with a level of safety that is in accordance with the intent of applicable codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe properties and hazards of flammable and combustible liquids and gases
2. Analyze safety data sheets
3. Describe safe handling practices
4. Describe appropriate codes and standards
5. Describe fire protection systems and equipment appropriate for the material
6. Describe fire behavior
7. Describe safety procedures
8. Identify other agencies that have requirements and AHJs related to flammable and combustible liquids and gases, chemical reactions, and storage compatibility

Requisite Skills

1. Observe
2. Recognize deficiencies
3. Communicate
4. Read plans and reports
5. Read safety data sheets

Content Modification

Block	Modification	Justification
JPR	Changed “alternatives” to “approaches”.	“Alternatives” has a specific meaning when applying code regulations (i.e. – alternate means and methods). “Approaches” is closer to the standard intent. (2024)
JPR	Added “and procedures”	Added for consistency across JPRs.

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-2 (RK1, RK2, RK3, RK4, RK5, RK6, RK7)• Topic 5-3 (RK8, RS1, RS2, RS3, RS4, RS5)	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 18

3-13: Evaluating Compliance Approaches for Hazardous Materials

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.13
2. Office of the State Fire Marshal

Job Performance Requirement

Evaluate compliance approaches for the storage, handling, and use of hazardous materials, given field inspection reports and proposed compliance alternatives, so that the hazardous materials are provided with a level of safety that is in accordance with the intent of applicable codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe properties and hazards of hazardous materials
2. Analyze safety data sheets
3. Describe safe handling practices
4. Describe appropriate codes and standards
5. Describe fire protection systems and equipment appropriate for the material
6. Describe fire behavior
7. Describe safety procedures
8. Identify other AHJs that have requirements related to hazardous materials

Requisite Skills

1. Observe
2. Recognize deficiencies
3. Communicate
4. Read plans and reports
5. Read safety data sheets

Content Modification

Block	Modification	Justification
JPR	Changed “alternatives” to “approaches”.	“Alternatives” has a specific meaning when applying code regulations (i.e. – alternate means and methods). “Approaches” is closer to the standard intent. (2024)
JPR	Added “and procedures”.	Added for consistency across JPRs.
RK1 through RK7	Added new knowledge items.	NFPA included these in 1031 (2024) paragraph 8.3.12 which mirrors this JPR for flammable and combustible liquids and gasses. If they are necessary knowledge there, they would also be necessary here. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-2 (RK1, RK2, RK3, RK4, RK5, RK6, RK7)• Topic 5-3 (RK8, RS1, RS2, RS3, RS4, RS5)	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 19

3-14: Evaluating Systems Integration

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.14

Job Performance Requirement

Evaluate the integration of life safety, fire protection, security, and building service systems, given a plan submittal, a life safety report, a sequence of operations report, and testing criteria, so that the integration of proposed systems meets the requirements or intent of the applicable codes and standards and meets the fire and life safety objectives of AHJ and any deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Explain the fire and life safety objectives of the AHJ
2. Describe fire protection and life safety systems and their integration

Requisite Skills

1. Evaluate system integration

Content Modification

Block	Modification	Justification
JPR	Added “and procedures”.	Added for consistency across all JPRs.

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 2-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 20

3-15: Evaluating Protection Measure Approaches for Equipment, Operations, and Processes

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.15

Job Performance Requirement

Evaluate protection measure approaches for equipment, operations, and processes, given deficiencies noted during a field inspection of a facility and proposed alternative methods or materials, so that the equipment, process, or operation is provided with a level of protection that complies with the intent of applicable codes and standards.

Requisite Knowledge

1. Describe applicable codes and standards adopted by the AHJ
2. Describe hazards of the process or operation
3. Describe fire protection systems required
4. Describe inherent hazards
5. Describe safe necessary precautions

Requisite Skills

1. Make observations
2. Recognize deficiencies
3. Resolve conflicts

Content Modification

Block	Modification	Justification
JPR	Changed “alternative protection measures of” to “protection measure approaches for”.	“Alternatives” has a specific meaning when applying code regulations (i.e. – alternate means and methods). “Approaches” is closer to the standard intent. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-2 (RK2, RK4)• Topic 5-5 (RK1, RK3, RK5, RS1, RS2, RS3)	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 21

3-16: Evaluating the Need for Fire Protection and Life Safety Systems

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate the need for fire protection and life safety systems, given a building plan submittal, so that the systems and equipment are identified and deferred submittals are identified, documented, and requested in accordance with applicable codes and standards and AHJ policies and procedures.

Requisite Knowledge

1. Identify occupancy classification and use
2. Identify fire protection system requirements
3. Identify life safety system requirements
4. Identify emergency responder communication system requirements
5. Identify mass notification system requirements

Requisite Skills

1. Review specifications and read plans
2. Classify occupancies and identify use(s)
3. Interpret codes and standards

Content Modification

Block	Modification	Justification
CTS	Added new standard.	This is the step or process before NFPA 8.3.16. California fire officials have a different level or responsibility in the code.

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-4	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 22

3-17: Evaluating Plans for Installing Fire Protection and Life Safety Systems

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.16
2. Office of the State Fire Marshal

Job Performance Requirement

Evaluate plans for the installation of fire protection and life safety systems, given a plan submittal, so that the systems and equipment are reviewed and deficiencies are identified, documented, and reported in accordance with applicable codes and standards and with the policies and procedures of the AHJ.

Requisite Knowledge

1. Identify applicable codes and standards for fire protection and life safety systems
2. Describe basic physical science as it relates to fire behavior and fire suppression
3. Describe hydraulic theory
4. Describe hydraulic calculations for fire suppression
5. Identify material list requirements
6. Identify material specifications
7. Describe acceptance inspection and testing of completed installations
8. Describe classification of occupancies
9. Describe engineering calculations for fire protection and life safety systems
10. Identify construction types and features that impact system design
11. Identify building material listing requirements and specifications

Requisite Skills

12. Review specifications and read plans
13. Classify occupancies
14. Interpret codes and standards
15. Verify engineering calculations

Content Modification

Block	Modification	Justification
RK	Removed “installation techniques”.	California fire plans examiners don’t do installation.
RK	Removed “construction types and techniques”.	Construction type is covered in course plan 1A and California fire plans examiners don’t dictate technique.
RK1	Added “and life safety”.	Added to mirror JPR language. (2014)

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RK9	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)
RK10	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)
RK11	Added new knowledge item.	This was in NFPA 1031 (2014) but not carried over to 1030 (2024). It is still vital to the JPR. (2024)
RS4	Changed “hydraulic” to “engineering”.	Hydraulic is specific to sprinklers. Engineering can apply to any type of system. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-1 (RK8, RS13)• Topic 3-2 (RK5, RK6) Fire Plans Examiner 1B (2024) <ul style="list-style-type: none">• Topic 3-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 23

3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate plans for storage, handling, and use of flammable and combustible liquids and gases, given a submittal package, so that the plans are reviewed and deficiencies are identified, documented, and reported in accordance with the applicable codes, standards, policies, and procedures of the jurisdiction.

Requisite Knowledge

1. Describe properties of flammable and combustible liquids and gases
2. Describe applicable standards for the handling, storage, arrangement, and protection of flammable and combustible liquids and gases
3. Describe basic physical science as it relates to fire behavior and fire suppression
4. Identify reference materials related to flammable and combustible liquids and gases

Requisite Skills

1. Verify the classification of flammable and combustible liquids and gases using reference materials on fire protection

Content Modification

Block	Modification	Justification
JPR	Added new standard.	This was in NFPA 1031 (2014) as 8.3.3 but not carried over to 1030 (2024). This is a critical aspect when working with buildings and has a significant impact on fire and life safety. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 24

3-19: Evaluating Plans for Storage, Handling, and Use of Hazardous Materials

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.17
2. Office of the State Fire Marshal

Job Performance Requirement

Evaluate plans for storage, handling, and use of hazardous materials, given a submittal package, so that the plans are reviewed for compliance and deficiencies are identified, documented, and reported in accordance with the applicable codes, standards, policies, and procedures of the AHJ.

Requisite Knowledge

1. Identify codes and standards used to determine hazardous materials compliance
2. Describe how to classify an occupancy containing hazardous materials
3. Describe properties of hazardous materials
4. Describe physical and health hazards
5. Describe how to read a Safety Data Sheet (SDS)
6. Describe how to classify mixtures
7. Describe applicable standards for handling, storage, arrangement, and protection of hazardous materials
8. Describe basic physical science as it relates to fire behavior and fire suppression
9. Identify reference materials related to hazardous materials

Requisite Skills

1. Verify the classification of hazardous materials using reference materials

Content Modification

Block	Modification	Justification
JPR	Changed “plans and specifications” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
RK1	Added new knowledge item.	Added to mirror CTS 3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases. (2024)
RK2	Added new knowledge item.	Added to mirror CTS 3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases. (2024)

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RK4	Added new knowledge item.	Added to mirror CTS 3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases. (2024)
RK5	Added new knowledge item.	Added to mirror CTS 3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases. (2024)
RK6	Added new knowledge item.	Added to mirror CTS 3-18: Evaluating Plans for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases. (2024)
RS1	Changed “determine” to “verify”.	Verify is a quantifiable task. Someone else does the calculations. Fire plans examiners are primarily verifying them. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-2	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 25

3-20: Evaluating a Plan with Special (High-piled Combustible) Storage Arrangements

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.18
2. Office of the State Fire Marshal

Job Performance Requirement

Evaluate a plan with special (high-piled combustible) storage arrangements, given a submittal package, so that deficiencies are identified, documented, and reported in accordance with adopted codes and standards and the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe how to apply codes and standards adopted by the AHJ for special (high-piled combustible) storage arrangements
2. Describe storage arrangements and layout
3. Describe general fire protection and life safety requirements
4. Describe fire protection system requirements for high-piled combustible storage arrangements

Requisite Skills

1. Determine commodity types and storage arrangements

Content Modification

Block	Modification	Justification
JPR	Added “(high-piled combustible)”.	Added to clarify the meaning of special storage. (2014)
JPR	Changed “plan” to “submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
JPR	Added “and procedures”.	Added for consistency across all JPRs.
RK1	Added “(high-piled combustible)”.	Added to clarify the meaning of special storage. (2014)
RK2	Added new knowledge item.	Added to enhance student knowledge base. (2024)
RK3	Added new knowledge item.	Added to enhance student knowledge base. (2024)
RK4	Added new knowledge item.	Added to enhance student knowledge base. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-6	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 26

3-21: Evaluating Building Service Equipment and Operations

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.19

Job Performance Requirement

Evaluate heating, ventilation, air conditioning, and other building service equipment and operations, given a submittal package, so that the systems and other equipment are designed in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe types, installation, maintenance, and use of building service equipment, smoke control systems, installation of kitchen cooking equipment (including hoods and ducts), laundry chutes, elevators, and escalators
2. Describe applicable codes and standards adopted by the AHJ

Requisite Skills

1. Apply, read, and interpret HVAC plans

Content Modification

Block	Modification	Justification
JPR	Changed “plans and specifications” to “a submittal package”.	When fire plans examiners do a plan review, there are more documents involved than just the set of plans. (2024)
JPR	Added “and procedures”.	Added for consistency across all JPRs.

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-7	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 27

3-22: Evaluating Performance-Based Design Concepts

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.20

Job Performance Requirement

Evaluate a performance-based design concept, given a preliminary design presentation, so that the proposed concept meets the intent of applicable codes and standards in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe fire protection construction features
2. Describe codes and standards
3. Describe technical reports and data sheets associated with performance-based designs
4. Describe preliminary plan review procedures of the jurisdiction
5. Describe the approval process for alternative performance-based fire protection methodologies
6. Describe performance-based concepts
7. Describe the development of appropriate input values based upon the building type and anticipated use
8. Identify jurisdictional code requirements
9. Identify other subject matter experts who may need to evaluate components of performance-based designs

Requisite Skills

1. Recognize deviations from the prescriptive code
2. Recognize and interpret performance-based proposals
3. Determine and present appropriate design input values and parameters based on building type and anticipated use

Content Modification

Block	Modification	Justification
RK3	Added new knowledge item.	For performance-based design there are more than just codes and standards to reference. (2024)
RK9	Added new knowledge item.	Fire plans examiners may need to collaborate with an expert about different design components to verify they meet code intent. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 3-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 28

3-23: Evaluating Compliance with Construction Documents

Authority

1. NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)
 - Paragraph 8.3.21

Job Performance Requirement

Evaluate compliance with construction documents, given a performance-based design, so 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 and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ.

Requisite Knowledge

1. Describe applicable codes and standards for installation and testing of fire protection systems
2. Describe means of egress
3. Describe building services equipment

Requisite Skills

1. Witness and document tests of fire protection systems and building services equipment
2. Evaluate means of egress
3. Evaluate building services equipment

Content Modification

Block	Modification	Justification
JPR	Added “and procedures”	Added for consistency across all JPRs.
RS2	Added new skill item.	This skill is necessary to complete the JPR. (2024)
RS3	Added new skill item.	This skill is necessary to complete the JPR. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C(2024) <ul style="list-style-type: none">• Topic 3-3	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 29

3-24: Evaluating Community or Wildland Urban Interface Plans

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate landscape plans for a development, community, or a wildland urban interface, given a fire hazard severity zone map, a set of landscape plans for a development or community in a fire hazard severity zone, and a set of landscape plans for a wildland urban interface area, so that plans are in compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures and required or applicable permits are issued.

Requisite Knowledge

1. Describe basic wildland fire behavior
2. Describe wildland urban interface fire progression
3. Describe fire hazard severity zone maps
4. Define wildland urban interface zones
5. Describe codes and standards related to public areas or a development or community landscape plan
6. Describe codes and standards related to a wildland urban interface landscape plan
7. Describe home ignition zones for defensible space
8. Describe infrastructure considerations for grading and improvement plans
9. Identify and evaluate design and maintenance standards for open space areas adjacent to new development projects
10. Describe how to evaluate a vegetation management plan for buildings in a wildland urban interface
11. Describe requirements for coordinating with applicable building and planning departments

Requisite Skills

1. Coordinate with applicable building and planning departments

Content Modification

Block	Modification	Justification
JPR	Added new standard.	In California, fire plans examiners operating in WUI environments have this responsibility. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 4-1	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 30

3-25: Evaluating Plans for Modifying Existing Occupancies

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate a proposed modification or change in occupancy for a building or portion of a building, given a submittal package for an existing building or portion of a building and building record, so that the modification or change complies with applicable codes and standards, and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Requisite Knowledge

1. Describe how to evaluate a proposed tenant improvement or change in occupancy classification
2. Describe applicability of code provisions as they relate to existing and modified spaces
3. Describe requirements for determining damage repair
4. Describe the application process to repair or restore a building to its permitted use
5. Describe requirements for modifying fire protection or life safety systems in an existing building
6. Describe requirements, codes, and standards for historic buildings under repair or renovation
7. Describe requirements for demolition and fire safety during construction

Requisite Skills

1. Coordinate with applicable building and planning departments

Content Modification

Block	Modification	Justification
JPR	Added new standard.	This is part of a fire plans examiner's job but is not included in NFPA 1030. (2014)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-8	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 31

3-26: Evaluating Proposed Passive Fire Protection Elements

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate proposed passive fire protection elements of a building or portion of a building, given a submittal package for a building or facility, so that the protection provided for the facility is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Requisite Knowledge

1. Describe fire protection construction features, such as rated assemblies, fire stops, draft stopping, draft curtains, and other passive protection features
2. Describe fire test methods

Requisite Skills

1. Verify the rating of an assembly using reference materials

Content Modification

Block	Modification	Justification
JPR	Added new standard.	This was in NFPA 1031 (2014) as 8.3.2 but not carried over to 1030 (2024). This is a critical aspect when working with buildings and has a significant impact on fire and life safety. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 3-5	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 32

3-27: Evaluating Plans for Equipment, Operations, or Processes

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Evaluate plans for equipment, operations, or processes, given a submittal package, so that the equipment, operation, or process is reviewed for compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with applicable codes, standards, policies, and procedures of the jurisdiction.

Requisite Knowledge

1. Describe hazards of various equipment, operations, and processes used in commercial and industrial occupancies covered in California Fire Code
2. Describe hazards of various operations used in commercial and industrial occupancies covered in California Building Code
3. Describe applicable standards for arrangement and protection of various equipment, processes, and operations used in commercial and industrial occupancies

Requisite Skills

1. Read plans
2. Interpret and apply codes and standards

Content Modification

Block	Modification	Justification
JPR	Added new standard.	This was in NFPA 1031 (2014) as 8.3.3 but not carried over to 1030 (2024). This is a critical aspect when working with buildings and has a significant impact on fire and life safety. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1C (2024) <ul style="list-style-type: none">• Topic 5-4	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 33

3-28: Navigating Plan Sets

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Navigate plan sets, given a submittal package and plan review tools, so that plans are read and reviewed in accordance with plan review best practices.

Requisite Knowledge

1. Describe types of plans
2. Describe the role of a fire plans examiner
3. Describe how to read plans
4. Identify plan review tools

Requisite Skills

1. Read plans
2. Use plan review tools

Content Modification

Block	Modification	Justification
JPR	Added new standard.	This is foundational knowledge required to complete all other plan review tasks. (2024)

Cross Reference

Course Plan	Skill Sheet	Task Book
Fire Plans Examiner 1A (2024) <ul style="list-style-type: none">• Topic 2-4	N/A	Fire Plans Examiner (2024) Certification Task Book <ul style="list-style-type: none">• JPR 34



Building Plan Review (2024)

Course Plan

Course Details

Certification:	Fire Plans Examiner
CTS Guide:	Fire Plans Examiner (2024)
Description:	This course provides the knowledge and skills that prepare a fire plans examiner to carry out administrative responsibilities associated with plan review services and evaluate plans for new buildings in accordance with applicable codes and standards and jurisdictional policies and procedures.
Designed For:	Personnel preparing to pursue Fire Plans Examiner certification or anyone who performs the duties of a fire plans examiner within their agency
Prerequisites:	None
Standard:	Complete all activities and formative tests Complete all summative tests with a minimum score of 80%
Hours (Total):	28 (18 lecture / 8 application / 2 testing)
Maximum Class Size:	30
Instructor Level:	SFT Fire Plans Examiner Registered Instructor
Instructor/Student Ratio:	1:30 (lecture) 1:15 (application)
Restrictions:	None
SFT Designation:	CFSTES

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Required Resources

Instructor Resources

To teach this course, instructors need:

- One of the following texts
 - *Plan Review Manual* (ICC, based on the 2009 IBC)
 - *Plans Examiner for Fire and Emergency Services* (IFSTA, 2016)
- California Building Code (CBC) (CCR, Title 24, current edition)
- California Fire Code (CFC) (CCR, Title 24, current edition)
- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (current edition)
- Engineering scale
- Architectural scale

Online Instructor Resources

The following instructor resources are available online at <https://osfm.fire.ca.gov/what-we-do/state-fire-training/professional-certifications>:

- Activity 2-4 – Using Engineer and Architect Scales (FEMA)
- Effective Use of the IBC/CBC (2013)

Student Resources

To participate in this course, students need:

- California Building Code (CBC) (CCR, Title 24, current edition)
- California Fire Code (CFC) (CCR, Title 24, current edition)
- Engineering scale
- Architectural scale

Optional student resources:

- Text selected by instructor
- Laptop or tablet for viewing digital resources and plans (a second portable screen is also helpful)

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
 - Writing board or paper easel chart
 - Markers, erasers
 - Amplification devices
 - Projector and screen
 - Laptop or tablet with presentation or other viewing software
 - Internet access with appropriate broadband capabilities

- A large room with tables to accommodate full-size plans for up to 30 students
- Two sets of plans, specifications, and details for each student or student group (At a minimum, documents should be sufficient to meet the objectives of Application activities)
 - One set for course activities
 - One set for testing

Timetable

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.50	0.00	
Topic 1-2: Fire Plans Examiner Process	0.50	0.00	
Topic 1-3: Definition of Duties	1.00	0.00	
Unit 1 Totals	2.00	0.00	2.00
Unit 2: Administration			
Topic 2-1: Determining Applicable Codes and Standards	0.25	0.50	
Topic 2-2: Developing Plan Review Policies and Procedures	0.50	0.50	
Topic 2-3: Processing Plan Review Documents	0.25	0.00	
Topic 2-4: Navigating Plan Sets	0.50	0.50	
Topic 2-5: Verifying Product Listings	0.00	0.50	
Topic 2-6: Creating Plan Review Checklists and Forms	0.50	0.00	
Topic 2-7: Preparing Reports	0.25	0.00	
Topic 2-8: Resolving Deficiencies	0.50	0.00	
Topic 2-9: Participating in Legal Proceedings	0.25	0.00	
Unit 2 Totals	3.00	2.00	5.00
Unit 3: New Building Plan Review			
Topic 3-1: Verifying Occupancy Classification and Maximum Allowable Occupant Loads	1.00	1.00	
Topic 3-2: Verifying Construction Type	1.00	2.00	
Topic 3-3: Evaluating Fire Access Site Plans	1.00	0.00	
Topic 3-4: Evaluating the Need for Fire Protection and Life Safety Systems	2.00	0.50	
Topic 3-5: Evaluating Proposed Passive Fire Protection Elements	2.00	1.00	
Topic 3-6: Verifying Means of Egress Compliance	3.00	0.50	
Topic 3-7: Evaluating Building Service Equipment and Operations	1.00	1.00	
Topic 3-8: Evaluating Plans for Modifying Existing Occupancies	2.00	0.00	
Unit 3 Totals	13.00	6.00	19.50
Formative Assessments			
Determined by AHJ or educational institution	0.00	0.00	0.00
Summative Assessment			
Determined by AHJ or educational institution	0.00	2.00	2.00
Course Totals	18.00	10.00	28.00

Timetable Key

1. The Timetable documents the amount of time estimated to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

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. Determined by instructor

Application

1. Determined by instructor

Topic 1-2: Fire Plans Examiner Certification Process

Terminal Learning Objective

At the end of this topic a student will be able to identify the requirements for Fire Plans Examiner certification and describe the certification task book and examination process.

Enabling Learning Objectives

1. Identify the levels of certification in the Fire Plans Examiner certification track
2. Identify other Fire Prevention certification tracks
 - First Responder Inspector (2024) or Fire Inspector 1 (2014)
 - Fire Inspector (2024) or Fire Inspector 2 (2014)
 - Fire Marshal (2014 or 2024)
3. Identify the prerequisites for Fire Plans Examiner certification
 - None
4. Identify the course work required for Fire Plans Examiner certification
 - Fire Plans Examiner 1A: Building Plan Review (2024)
 - Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)
 - Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)
 - Statutes and Regulations (SFT)
5. Identify the exams requirements for Fire Plans Examiner certification
 - Not applicable
6. Identify the task book requirements for Fire Plans Examiner certification
 - Fire Plans Examiner Certification Task Book (2024)
7. Identify the experience requirements for Fire Plans Examiner certification
 - Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency in a fire prevention role with plan review as their primary responsibility
8. Identify the position requirements for Fire Plans Examiner certification
 - None
9. Describe the certification task book process
10. Describe the certification testing process
 - Not applicable
 - All formative and summative testing is completed in individual courses
 - Schedule skills evaluation test

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Topic 1-3: Definition of Duties

Terminal Learning Objective

At the end of this topic a student, given NFPA 1030; applicable codes, standards, and ordinances; and AHJ policies and procedures, will be able to carry out the administrative and plan review activities of a fire plans examiner in accordance with national, state, and local standards.

Enabling Learning Objectives

1. Identify the administrative duties of a fire plans examiner
 - Review plans
 - Prepare correspondence and plan review reports
 - Communicate with fire inspectors and emergency response personnel
 - Handle complaints
 - Maintain records
 - Participate in legal proceedings
 - Identify when additional expertise is required
 - Be familiar with procedures used by the jurisdiction to evaluate alternative methods
 - Research
 - Interpret codes
 - Implement AHJ policy
 - Create forms and job aids
2. Identify the plans review duties of a fire plans examiner
 - Review and approve plans for fire protection and life safety issues, including:
 - Occupancy type
 - Construction type
 - Fire protection systems
 - Access and water supply
 - Height and area limitations
 - Special occupancy requirements
 - Passive fire protection elements
 - Interior finishes
 - Means of egress
 - Building service equipment and operations
 - Identify the requirements for fire protection and life safety systems and permits
 - Analyze and approve plans, specifications, and construction documents for:
 - Buildings
 - Processes
 - Operations
 - Fire protection and life safety systems and equipment
3. Identify laws, codes, and ordinances that give fire agencies authority to conduct plan review

Discussion Questions

1. Why is it important to establish good communications with the building and planning departments?

2. How can a fire plans examiner verify that they have acted within the spirit of the law?
3. How can a fire plans examiner establish a positive working relationship with field personnel?
4. How might a fire plans examiner prioritize plans to be reviewed?

Application

1. Determined by instructor

Instructor Notes

1. The list for ELO 2 (review and approve plans) comes from the California Building Code, Volume 1. See Effective Use of the IBC/CBC (2013) (included in the Online Instructor Resources).

CTS Guide Reference: CTS 1-1

Unit 2: Administration

Topic 2-1: Determining Applicable Codes and Standards

Terminal Learning Objective

At the end of this topic a student, given a fire protection or life safety issue, will be able to determine the applicable code or standard, so that the proper document, edition, and section are referenced.

Enabling Learning Objectives

1. Describe applicable AHJ codes and standards
 - California Code of Regulations (CCR) Title 24 – California Building Standards Code
 - CCR Title 19 – Public Safety
 - Other recognized codes and standards
 - Local ordinances and standards
 - Published interpretations
 - Information bulletins
2. Describe the format of codes and standards
3. Describe the interrelationship of codes and standards
 - Building standards versus non-building standards
4. Describe procedures adopted by the organizations responsible for promulgating state and local regulations
5. Conduct code-related research
6. Apply codes and standards
7. Make decisions

Discussion Questions

1. How can a fire plans examiner address a known hazard for which they are not the AHJ?
2. How does a fire plans examiner determine which codes, standards, and policies are applicable? Describe factors affecting this.

Application

1. Given a fire protection or life safety issue, have students research and identify applicable codes and standards.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-5

Topic 2-2: Developing Plan Review Policies and Procedures

Terminal Learning Objective

At the end of this topic a student, given management objectives, will be able to develop policies and procedures for administering plan review functions so that policies are defined and are in accordance with the AHJ's legal obligations.

Enabling Learning Objectives

1. Describe AHJ plan review policies and procedures
2. Describe the legal requirements that affect a fire plans examiner's duties
3. Describe government systems and processes that affect a fire plans examiner's duties
4. Identify jurisdictional requirements and information sources used to develop policies and procedures
5. Identify technical information resources related to fire protection and life safety
6. Describe technical assistance used to develop policies and procedures
7. Describe how to develop policies and procedures

Discussion Questions

1. What types of issues need to be addressed in a plan review program's policies and procedures?
2. When is it appropriate to seek legal counsel while reviewing proposed policies?
3. What are the differences between policies and procedures?
4. What kinds of ethical issues might be addressed in policies and procedures?

Application

1. Have students identify topics that should be covered by plan review process policies or procedures.

Instructor Notes

1. Fire marshals typically develop policies and procedures. Cover this at the awareness level so a fire plans examiner understands the general process.

CTS Guide Reference: CTS 3-9

Topic 2-3: Processing Plan Review Documents

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to process plan review documents so that required permits are issued in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe AHJ plan review policies and procedures
2. Identify conditions that require permits in accordance with an AHJ
3. Describe how to research existing information or files for a given property
4. Review submittal package for completeness
 - Required information
 - Required drawings
 - Specifications
 - Deferred submittal documentation

Discussion Questions

1. What should a fire plans examiner do with an incomplete submittal?
2. What are “approved plans with conditions”?
3. What are “deferred submittals”? When are they appropriate?

Application

1. Determined by instructor

Instructor Notes

1. ELO 4 – See California Building Code 107 and California Fire Code 3303.

CTS Guide Reference: CTS 2-4

Topic 2-4: Navigating Plan Sets

Terminal Learning Objective

At the end of this topic a student, given a submittal package and plan review tools, will be able to navigate plan sets so that plans are read and reviewed in accordance with plan review best practices.

Enabling Learning Objectives

1. Describe types of plans
 - Demolition
 - Civil
 - Landscape
 - Architectural
 - Structural
 - Mechanical/HVAC
 - Plumbing
 - Electrical
 - Fire protection/life safety
 - Other
 - Supplemental documentation
2. Describe the role of a fire plans examiner
 - As an educator
 - As a good communicator
 - As an active listener
3. Describe how to read plans
 - Introductory pages
 - Code analysis
 - General notes
 - Sheet index
 - Code summary
 - Vicinity map
 - Scope of work
 - Stamp
 - Other pages
 - T-24 energy calculations
 - E/M/P plans
 - Floor plans
 - Elevations
 - Site plans
 - Egress plans
 - Wall details
 - Ceiling plans
 - Door schedules
 - Window schedules

- Grids, sections, details
- 4. Identify plan review tools
 - Scales
 - Architectural
 - Engineering
 - Rulers or tapes
 - Some wheels
 - Compass/divider
 - Highlighters
 - Tabs/Post-its
 - Magnifying glass/lamp
- 5. Read plans
- 6. Use plan review tools

Discussion Questions

1. At what point in the plan review process should a fire plans examiner communicate with the applicant or applicant's team?
2. How would you know if plan submittal is complete (has all of the necessary components)?
3. If a permit application is submitted with incomplete building plans, when is it appropriate to return them without conducting a review due to their incompleteness

Application

1. Activity 2-4: Using Engineer and Architect Scales (FEMA)

Instructor Notes

1. None

CTS Guide Reference: CTS 3-28

Topic 2-5: Verifying Product Listings

Terminal Learning Objective

At the end of this topic a student, given specific product information, will be able to verify that a product is listed, so that the product is installed correctly and provides the required fire protection for life safety.

Enabling Learning Objectives

1. Describe "listing" and why it matters
 - Listed = Certified by a Nationally Recognized Testing Laboratory (NRTL)
 - Product tested to meet established safety standards
 - Included on a published list of certified products
 - Bears a label/mark (e.g., UL Listed, ETL Listed, etc.)
 - Code will usually reference Listing AND labels
 - All listed equipment needs a label whether the code says so or not
 - Some things can't have a mark put on them, (i.e. gaskets) In those cases, a listing document is acceptable, as is the label on the packaging
2. Identify common NRTLs and listing marks
 - UL (Underwriters Laboratories)
 - Intertek (ETL Listed)
 - CSA (Canadian Standards Association)
3. Identify why listings are required
 - Required for code compliance (IFC, NFPA 855, NEC)
 - Ensures:
 - Fire and electrical safety
 - Consistent manufacturing quality
 - Acceptance by AHJ
4. Describe testing standards vs. listing standards
 - UL 9540- Listing Standard
 - UL 9540A- Testing Standard
 - Supports listing but does not equal being listed
5. Identify code requirements for listings
 - IFC, IBC, NFPA Standards all require listings for various things
 - Sprinkler heads
 - Energy Storage Systems
 - Extension Cords
 - Flammable Liquid Storage Tanks
 - Safety Cans
 - Others
 - Listing is often a prerequisite for:
 - Permits
 - Installation approvals
 - Testing is often required for:
 - Hood and duct extinguishing systems (UL 300)

- Energy storage system spacing (UL 9540A)
- 6. Describe how to verify if a product is listed
 - Look for NRTL mark or label
 - Ask for one of the following:
 - Listing certificate (Authorization to List)
 - UL file number
 - Check product submittals and spec sheets
 - AHJ should require applicant to provide verification

Discussion Questions

1. Can you accept a device that does not carry a listing?

Application

1. Determined by instructor

Instructor Notes

1. ELO 2: A list of approved NRTL's can be found on OSHA's website.
2. Use Underwriters Labs "Product IQ" (www.ul.com/PIQ) to show the difference between listings and standards.
3. All listing and testing standards are generally available on the listing company's website (i.e., UL listing standards are available on UL's website).

CTS Guide Reference: None

Topic 2-6: Creating Plan Review Checklists and Forms

Terminal Learning Objective

At the end of this topic a student, given applicable codes, standards, and departmental policies and procedures, will be able to create plan review checklists and forms that address key issues and clearly express AHJ code requirements.

Enabling Learning Objectives

7. Describe plan review elements required by AHJ codes, standards, policies, and procedures
8. Identify forms and checklists commonly used to support AHJ plan review policies and procedures
9. Identify basic form components
 - Agency identification
 - Informational content
 - User/applicant identification
 - Fees (if applicable)
10. Identify common checklist and form formats
 - Paper
 - Digital
11. Identify advantages and disadvantages of checklists and forms
12. Organize, communicate, and design checklists and forms

Discussion Questions

2. What is the purpose of a form?
3. What should appear on a checklist?
4. What are the advantages of checklists? What are the disadvantages?

Application

2. Determined by instructor

Instructor Notes

4. See Effective Use of the IBC/CBC (2013) in the Online Instructor Resources.

CTS Guide Reference: CTS 2-2

Topic 2-7: Preparing Reports

Terminal Learning Objective

At the end of this topic a student, given observations from a plan review, will be able to prepare clear and concise reports that reflect the findings of a plan review in accordance with applicable codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Describe codes and standards
2. Describe legal requirements and AHJ policies and procedures for plan review reports
3. Describe accepted AHJ report preparation practices
 - Reflect findings
 - Cite codes and standards
 - Identify deficiencies
 - Use clear and concise language
 - Active voice
 - Complete sentences
4. Describe how to write an effective comment to minimize resubmittals
 - Where is the deficiency located (specific document and element)
 - What is problem (clearly explain the problem)
 - What is the requirement (citation or reference)
 - What is the solution (how to resolve the problem)
5. Conduct code-related research
6. Write reports
7. Determine plan status
 - Approved
 - Approved with comment
 - Resubmittal required
 - On hold

Discussion Questions

1. What elements make up a complete plan review comment?
2. Why should a fire plans examiner cite code sections and related deficiencies on a report?
3. What does it mean when a set of plans is “approved”? How might this influence your approach during inspections or construction oversight?

Application

1. Determined by instructor

Instructor Notes

1. This topic covers the general process. How to properly document specific deficiencies should be covered in more detail in their review section.
2. Students will apply this in other application activities in the course.

CTS Guide Reference: CTS 2-1

Topic 2-8: Resolving Deficiencies

Terminal Learning Objective

At the end of this topic a student, given a plan submittal and established AHJ policies and procedures, will be able to facilitate the resolution of deficiencies identified during a plan review so that deficiencies are identified, documented, and reported to the plan submitter with applicable references to codes and standards.

Enabling Learning Objectives

1. Identify ways to communicate deficiencies and when to use them
 - Plan review report
 - Email
 - Phone call
 - Meeting (virtual or in person)
 - Site visit
2. Identify ways to resolve plan deficiencies
 - Note on plans
 - Design change
 - Additional information or details in plan
 - Clarification to verify or confirm a question
 - Removing unnecessary details
 - AMMR (alternate means and methods request)
 - Use exceptions already in codes
 - Engage other agencies, subject matter experts, and/or stakeholders
3. Identify AHJ policies and procedures regarding communication of discrepancies
4. Describe the appeals process
5. Identify codes and standards
6. Communicate orally and in writing

Discussion Questions

1. How can a fire plans examiner resolve discrepancies on a plan to avoid multiple resubmittals?
2. How much consultation can a fire plans examiner provide to a designer to assist with achieving plan approval?
3. Is it ever appropriate to suspend or discontinue a plan review? Why or why not?
4. How can pre-formatted comments expedite or challenge the plan review process?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 2-3

Topic 2-9: Participating in Legal Proceedings

Terminal Learning Objective

At the end of this topic a student, given the findings of a plan review and consultation with legal counsel, will be able to participate in legal proceedings so that testimony is factual and appropriate to the proceedings.

Enabling Learning Objectives

1. Describe legal requirements pertaining to evidence rules in the legal system
2. Identify types of legal proceedings
 - Depositions
 - Administrative hearings
 - Court proceedings
 - Formal appeals
3. Describe appropriate courtroom demeanor
4. Maintain a professional demeanor
5. Listen
6. Differentiate facts from opinions
 - Fact-based testimony
 - Expert testimony

Discussion Questions

1. In an administrative hearing, can the governing body produce a ruling less than the minimum code? Why or why not?

Application

1. Determined by instructor

Instructor Notes

1. Appeals processes differ by AHJ. Make sure you are familiar with the AHJ requirements applicable to the audience.

CTS Guide Reference: CTS 3-10

Unit 3: New Building Plan Review

Topic 3-1: Verifying Occupancy Classification and Maximum Allowable Occupant Loads

Terminal Learning Objective

At the end of this topic, a student, given a submittal package, specifications, a description of a building and its intended use(s), and measuring tools, will be able to verify an occupancy classification and occupant load so that the classification is made, and the maximum allowable occupant load is, in accordance with applicable codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Identify applicable codes and standards
2. Describe code requirements, regulations, operational features, and fire hazards presented by various occupancies
3. Identify occupancy classifications and their intended uses
4. Identify occupancy factors related to various occupancy types
5. Describe how to calculate occupant loads for an occupancy for building use
6. Use measuring tools
 - Physical (architectural vs. engineering scale)
 - Digital
7. Calculate occupant loads
 - Square footage
 - Fixed seating

Discussion Questions

1. What is the difference between occupancy classification and use?
2. How are occupancy loads used?

Application

1. Given a plan and measuring tools, have students calculate the occupant load of a building.

Instructor Notes

1. None

CTS Guide Reference: CTS 3-3, CTS 3-5

Topic 3-2: Verifying Construction Type

Terminal Learning Objective

At the end of this topic a student, given a submittal package, including the occupancy classification area, height, number of stories, and location, will be able to verify a building's construction type so that the building is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported.

Enabling Learning Objectives

1. Identify applicable codes and standards
2. Describe building elements
 - Primary structural frame
 - Secondary structural members
 - Floor construction
 - Roof construction
 - Interior and exterior bearing walls
 - Interior and exterior nonbearing walls
3. Describe types of construction
 - New
 - Legacy
4. Describe fire-rated construction components
5. Describe typical building construction methods and materials
6. Describe code requirements related to construction types
 - Maximum height and area
 - Location/property line
 - Height and area increases
 - Fire protection systems
 - Fire walls
 - Frontage
 - Allowable number of openings
7. Read plans
8. Determine construction types
9. Conduct code-related research

Discussion Questions

1. How does fire separation distance from a property line impact building construction?
2. What is an imaginary property line?
3. What is the relationship between a building's size and its construction type?
4. How can a fire wall affect types of construction?
5. How does the presence of an automatic sprinkler system impact construction type?

Application

1. Given a plan and applicable codes, have students answer questions related to construction type and maximum allowable height and area.

Instructor Notes

1. ELO3 – Cover all construction types including Type IV HT and Type IV A, B, and C.

CTS Guide Reference: CTS 3-4

Topic 3-3: Evaluating Fire Access Site Plans

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to evaluate fire access site plans so that emergency vehicle, water supply, and site access is provided in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Identify applicable codes and standards pertaining to:
 - Emergency vehicle access
 - Water supply
2. Describe operating capabilities of fire agency apparatus
 - Pump capacity
 - Resource type
 - Turn radius
 - Approach/departure angles
3. Describe site considerations
 - Building/site address
 - Fire department key boxes
 - Fire protection and life safety equipment
 - Fire command center
 - Dead ends
4. Identify planning and zoning requirements
5. Describe how to determine fire flow
6. Describe how to determine fire hydrant locations and spacing
7. Interpret and use plan scale

Discussion Questions

1. What is the maximum distance a fire hydrant may be from a structure?
2. How can parking designations impact fire apparatus access?
3. When would a fire plans examiner require more than 20 feet for a fire lane?
4. How are fire lanes identified? Is it the same in every jurisdiction?
5. How do multiphase building construction projects affect the evolution of fire apparatus access?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 3-8

Topic 3-4: Evaluating the Need for Fire Protection and Life Safety Systems

Terminal Learning Objective

At the end of this topic a student, given a building plan submittal, will be able to evaluate the need for fire protection and life safety systems, so that the systems and equipment are identified and deferred submittals are identified, documented, and requested in accordance with applicable codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Identify occupancy classification and use
2. Identify fire protection system requirements
 - Sprinklers
 - Standpipes
 - Alternative fire extinguishing systems
 - Fire pumps
3. Identify life safety system requirements
 - Fire alarm and detection
 - Emergency alarms
 - Smoke control
 - Smoke and heat removal
 - Carbon monoxide detection
4. Identify emergency responder communication system requirements
5. Identify mass notification system requirements
6. Review specifications and read plans
7. Classify occupancies and identify use(s)
8. Identify applicable code requirements for interior finishes
9. Interpret codes and standards

Discussion Questions

1. How does the presence of fire protection or life safety systems impact construction or construction features?
2. What types of plan sheets are impacted by the introduction of fire protection and life systems?
3. If a designer wishes to avoid installing a fire protection or life safety system, how can they adapt their plans?
4. How do sprinklers, egress, or higher-hazard occupancies impact interior finishes?

Application

1. Given a submittal package, have students evaluate which fire protection and/or life safety systems are required.

Instructor Notes

1. This topic addresses where systems are required by California Fire Code/California Building Code, Chapter 9. Evaluating those systems is covered in Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024).

CTS Guide Reference: CTS 3-1, CTS 3-16

Topic 3-5: Evaluating Proposed Passive Fire Protection Elements

Terminal Learning Objective

At the end of this topic a student, given a submittal package for a building or facility, will be able to evaluate proposed passive fire protection elements of a building or portion of a building so that the protection provided for the facility is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe fire protection construction features, such as:
 - Rated assemblies
 - Structural protection
 - Floor/ceiling/roof
 - Wall
 - Fire partition
 - Fire barrier
 - Fire wall
 - Smoke partition
 - Smoke barrier
 - Fire stops/penetration
 - Opening protective
 - Doors
 - Windows
 - Shutters
 - Dampers
 - Draft stop/fire block
 - Draft curtains
 - Other passive fire protection features
2. Describe fire test methods
3. Verify the rating of an assembly using reference materials

Discussion Questions

1. From which testing laboratories might a fire plans examiner accept technical reports?
2. How is fill-void cavity material use verified for installation and plan review processes?

Application

1. Given a plan detail and reference materials, have the students evaluate element ratings.

Instructor Notes

1. Have the students watch a video on materials testing for UL 263 or ASTM E119.
2. Discuss the relevance of ASTM E84 in today's construction environment.

CTS Guide Reference: CTS 3-26

Topic 3-6: Verifying Means of Egress Compliance

Terminal Learning Objective

At the end of this topic a student, given a submittal package for a building or portion of a building, an area's identified use(s) and an occupant load, will be able to verify that egress elements are provided so that egress elements are provided, and deficiencies are identified, documented, and reported in accordance with applicable codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Identify standard symbols used in plans
2. Describe the components of a means of egress
 - Exit access
 - Exit
 - Exit discharge
3. Describe how door hardware impacts means of egress
4. Describe the impact of interior finishes on egress components
5. Describe applicable AHJ codes and standards for a means of egress
6. Describe the relationship of fixed fire protection systems to egress requirements
7. Describe field verification practices
8. Describe occupancy egress requirements
9. Verify egress requirements based on occupant load
10. Read plans
11. Research codes

Discussion Questions

1. Other than a public way, where are occupants considered safe?
2. Is a corridor part of exit access or exit?
3. Working in the field, how would you determine whether something is a corridor or an exit passageway?
4. How does protection from an active shooter impact exit design?

Application

1. Given a means of egress plan for a multistory building, have students identify and label means of egress components.

Instructor Notes

1. ELO 3 - Follow CBC/CFC chapter 10 to cover the necessary components.
2. ELO 3 – For “exit access”, follow CBC/CFC chapter 7, section 708.4 (exceptions).

CTS Guide Reference: CTS 3-6

Topic 3-7: Evaluating Building Service Equipment and Operations

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to evaluate heating, ventilation, air conditioning (HVAC), and other building service equipment and operations so that the systems and other equipment are designed in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe types of building service equipment
 - HVAC system
 - Boilers
 - Ducts
 - Elevators, dumbwaiters, laundry and trash chutes
 - Escalators
 - Fuel systems
 - Energy storage systems
 - Medical gas
2. Identify occupancies with unique building service requirements
 - Institutional occupancies
 - Fixed guideway transit systems
 - Wine caves
 - Atriums
 - High-rises
 - Malls
 - Laboratories
 - Other
3. Describe applicable AHJ codes and standards
4. Describe installation, maintenance, and use(s) of building service equipment
5. Read, and interpret mechanical, electrical, and plumbing plans

Discussion Questions

1. How does an HVAC system impact exiting?
2. In lieu of using a shaft with a grease duct, what options are available?
3. When can escalators be used as a legal means of egress?

Application

1. Given a submittal package, have students evaluate opening protection of fire rated walls penetrated by mechanical ducts.

Instructor Notes

1. Teach ELOs 1 and 2 at an awareness level.

CTS Guide Reference: CTS 3-21

Topic 3-8: Evaluating Plans for Modifying Existing Occupancies

Terminal Learning Objective

At the end of this topic a student, given a submittal package for an existing building or portion of a building and building records, will be able to evaluate a proposed modification or change in occupancy for a building or portion of a building so that the modification or change complies with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe how to evaluate a proposed tenant improvement or change in occupancy classification
 - Change of occupancy
 - Change of use
 - Change of height and/or area
2. Describe applicability of code provisions as they relate to existing and modified spaces
3. Describe requirements for determining damage repair
4. Describe the application process to repair or restore a building to its permitted use(s)
5. Identify when to apply specific parts of CCR Title 24 beyond Parts 2 and 9
 - Existing Building Code
 - Wildland Urban Interface Code
 - Historic Building Code
 - Others
6. Describe requirements for modifying fire protection or life safety systems in an existing building
7. Describe requirements for demolition and fire safety during construction
 - Protecting occupants during construction
8. Coordinate with applicable building and planning departments

Discussion Questions

1. How does code applicability change when there is a change in use but not a change in occupancy classification?
2. How does code applicability change when there is a change in occupancy classification but not a change in use?
3. What considerations should a fire plans examiner address in plan review for buildings that will remain occupied during construction?
4. Under what conditions does the Historic Building Code apply?

Application

1. Determined by instructor

Instructor Notes

1. ELO 7 – Refer to both CBC and CFC chapter 33 and NFPA 241 (current edition).

CTS Guide Reference: CTS 3-25

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.



Fire Protection and Life Safety Systems Plan Review (2024)

Course Plan

Course Details

Certification:	Fire Plans Examiner
CTS Guide:	Fire Plans Examiner (2024)
Description:	This course provides the knowledge and skills that prepare a fire plans examiner to evaluate fire flow compliance and identify requirements and review installation plans for fire protection and life safety systems.
Designed For:	Personnel preparing to pursue Fire Plans Examiner certification or anyone who performs the duties of a fire plans examiner within their agency
Prerequisites:	Fire Plans Examiner 1A: Building Plan Review (2024)
Standard:	Complete all activities and formative tests Complete all summative tests with a minimum score of 80%
Hours (Total):	30 hours (19.5 lecture / 8.5 application / 2 testing)
Maximum Class Size:	30
Instructor Level:	SFT Fire Plans Examiner Registered Instructor
Instructor/Student Ratio:	1:30 (lecture) 1:15 (application)
Restrictions:	None
SFT Designation:	CFSTES

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Required Resources

Instructor Resources

To teach this course, instructors need:

- *Fire Protection, Detection, and Suppression Systems* (IFSTA, 5th edition, 2016)
- *Plans Examiner for Fire and Emergency Services* (IFSTA, 2016)
- California Building Code (CBC) (CCR, Title 24, current edition)
- California Fire Code (CFC) (CCR, Title 24, current edition)
- NFPA 13: Standard for the Installation of Sprinkler Systems (current edition)
- NFPA 14: Standard for the Installation of Standpipe and Hose Systems (current edition)
- NFPA 17A: Standard for Wet Chemical Extinguishing Systems (current edition)
- NFPA 20: Standard for the Installation of Stationary Pumps for Fire Protection (current edition)
- NFPA 24: Standard for the Installation of Private Fire Service Mains and Their Appurtenances (current edition)
- NFPA 72: National Fire Alarm and Signaling Code (current edition)
- NFPA 291: Recommended Practice for Water Flow Testing and Marking of Hydrants (current edition)
- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (current edition)
- NFPA 1142: Standard on Water Supplies for Suburban and Rural Firefighting (current edition)
- U.S. Fire Administration Water Supply Systems and Evaluation Methods Volume I: Water Supply System Concepts (FEMA, October 2008)
 - https://www.usfa.fema.gov/downloads/pdf/publications/water_supply_systems_volume_i.pdf
- U.S. Fire Administration Water Supply Systems and Evaluation Methods Volume II: Water Supply System Concepts (FEMA, October 2008)
 - https://www.usfa.fema.gov/downloads/pdf/publications/water_supply_systems_volume_ii.pdf
- Engineering scale
- Architectural scale
- Calculator

Online Instructor Resources

The following instructor resources are available online at <https://osfm.fire.ca.gov/what-we-do/state-fire-training/professional-certifications>:

- None

Student Resources

To participate in this course, students need:

- California Building Code (CCR, Title 24, current edition)
- California Fire Code (CCR, Title 24, current edition)
- NFPA 13: Standard for the Installation of Sprinkler Systems (current edition)
- NFPA 72: National Fire Alarm and Signaling Code (current edition)
- Engineering scale
- Architectural scale
- Calculator

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
 - Writing board or paper easel chart
 - Markers, erasers
 - Amplification devices
 - Projector and screen
 - Laptop or tablet with presentation or other viewing software
 - Internet access with appropriate broadband capabilities
- A large room with tables to accommodate full-size plans for up to 30 students
- Two sets of plans, specifications, and details for each student or student group (At a minimum, documents should be sufficient to meet the objectives of Application activities designed by the instructor)
 - One set for course activities
 - One set for testing

Timetable

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.50	0.00	
Topic 1-2: Fire Plans Examiner Certification Process	0.50	0.00	
Unit 1 Totals	1.00	0.00	1.00
Unit 2: Fire Flow			
Topic 2-1: Evaluating Fire Flow Compliance	2.50	1.50	
Unit 2 Totals	2.50	1.50	4.00
Unit 3: Fire Protection and Life Safety Systems			
Topic 3-1: Identifying Requirements for Fire Protection or Life Safety Systems	1.00	0.50	
Topic 3-2: Reviewing Fire Protection and Life Safety System Installation Plans	15.00	6.50	
Unit 3 Totals	16.00	7.00	23.00
Formative Assessments			
Determined by AHJ or educational institution	0.00	0.00	0.00
Summative Assessment			
Determined by AHJ or educational institution	0.00	2.00	2.00
Course Totals	19.50	10.50	30.00

Timetable Key

1. The Timetable documents the amount of time estimated to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.

5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

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? What is a summative test?

Application

1. Determined by instructor

Topic 1-2: Fire Plans Examiner Certification Process

Terminal Learning Objective

At the end of this topic a student will be able to identify the requirements for Fire Plans Examiner certification and describe the certification task book and examination process.

Enabling Learning Objectives

1. Identify the levels of certification in the Fire Plans Examiner certification track
2. Identify other Fire Prevention certification tracks
 - First Responder Inspector (2024) or Fire Inspector 1 (2014)
 - Fire Inspector (2024) or Fire Inspector 2 (2014)
 - Fire Marshal (2014 or 2024)
3. Identify the prerequisites for Fire Plans Examiner certification
 - None
4. Identify the course work required for Fire Plans Examiner certification
 - Fire Plans Examiner 1A: Building Plan Review (2024)
 - Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)
 - Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)
 - Statutes and Regulations (SFT)
5. Identify the exams requirements for Fire Plans Examiner certification
 - Not applicable
6. Identify the task book requirements for Fire Plans Examiner certification
 - Fire Plans Examiner Certification Task Book (2024)
7. Identify the experience requirements for Fire Plans Examiner certification
 - Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency in a fire prevention role with plan review as their primary responsibility
8. Identify the position requirements for Fire Plans Examiner certification
 - None
9. Describe the certification task book process
10. Describe the certification testing process
 - Not applicable
 - All formative and summative testing is completed in individual courses
 - Schedule skills evaluation test

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Unit 2: Fire Flow

Topic 2-1: Evaluating Fire Flow Compliance

Terminal Learning Objective

At the end of this topic a student, given a submittal package, codes and standards, and fire flow test results, will be able to evaluate code compliance for required fire flow and hydrant location and spacing so that hydrants are correctly located, required fire flow is determined, and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe types of water supply and distribution systems
2. Describe characteristics and components of public and private water supply systems, including:
 - Water meters
 - Backflow prevention
 - Fire hydrants
 - Valves and pipes
 - Other devices that can impact fire flow
3. Describe water distribution system test methods
4. Analyze the effects of friction loss and elevation on water flow
5. Describe the potential impact of state health regulations on fire flow
6. Describe how to graph water supply
 - Water supply line
 - Demand points (fire flow, sprinkler system design, etc.)
 - Residual pressure
 - Static pressure
 - Flow pressure
7. Read fire flow graphs
8. Interpret fire flow test results
9. Describe applicable AHJ codes and standards related to fire flow in the jurisdiction
 - Municipal requirements
 - Rural requirements
10. Identify standard civil engineering symbols
11. Determine fire hydrant locations and spacing

Discussion Questions

1. How should fire flow be distributed through multiple hydrants?
2. How do fire flow requirements vary in rural versus urban areas and/or commercial versus residential buildings?

Application

1. Given a submittal package and the California Fire Code, have students determine compliance for fire flow and hydrants along fire apparatus access.

Instructor Notes

1. See “The World’s First Web-Based Hydraulic Graph $N^{1.85}$ for Water Supply and Demand Information” available at <https://pingfire.com/> for graphing water supply lines and evaluating fire flow demand.

CTS Guide Reference: CTS 3-7

Unit 3: Fire Protection and Life Safety Systems

Topic 3-1: Identifying Requirements for Fire Protection or Life Safety Systems

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to identify the requirements for a fire protection or life safety system so that deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Identify applicable code requirements for:
 - Life safety systems
 - Fire alarm
 - Smoke control
 - Fire extinguishers
 - Fire protection systems
 - Sprinkler (with and without foam)
 - Wet
 - Dry
 - Pre-action
 - Deluge
 - Standpipe
 - Engineered and pre-engineered
 - Clean agent
 - Dry chemical
 - Dry powder
 - Wet chemical
 - CO₂
 - Water wash
 - Mist
 - Fire pumps
2. Identify the symbols used on a set of plans
3. Identify the components of a basic submittal package
 - Plans or shop drawings
 - Engineering or designer stamp
 - Approved construction drawings for reference
 - Architectural
 - Civil
 - Mechanical
 - Electrical
 - Plumbing
 - Other based on scope
 - Cut sheet
 - Listing sheet
 - Specifications

- Calculations
- 4. Read floor plans or shop drawings
- 5. Apply codes and standards

Discussion Questions

1. How much contact should a fire plans examiner have with a designer during the review process?
2. When construction drawings reference fire protection and life system systems to be installed, and build coordination into the construction drawings prior to deferred submittals being submitted, how can you ensure coordination and reconciliation between the construction drawings and the deferred submittals?
3. Do voluntary fire protection and life safety systems have to meet the same standards as required systems.

Application

1. Given a submittal package, have students evaluate the completeness and scope of work to determine if the required fire and life safety systems are in place.

Instructor Notes

1. None

CTS Guide Reference: CTS 3-1

Topic 3-2: Reviewing Fire Protection and Life Safety System Installation Plans

Terminal Learning Objective

At the end of this topic a student, given a plan submittal, will be able to evaluate plans for the installation of fire protection and life safety systems so that the systems and equipment are reviewed, and deficiencies are identified, documented, and reported in accordance with applicable codes and standards and with the policies and procedures of the AHJ.

Enabling Learning Objectives

1. Describe basic physical science as it relates to fire behavior and fire suppression
2. Identify basic system design criteria and applicable codes and standards for life safety systems
 - Fire alarm
 - Smoke management
 - Communication
3. Identify basic system design criteria and applicable codes and standards for fire protection systems
 - Water sources
 - Flow and hydraulics
 - Fire underground
 - Fire pumps
 - Fire sprinklers
 - Standpipes
 - Engineered and pre-engineered
4. Describe approved material listing requirements and specifications
5. Identify installation components of fire protection and life safety systems
 - Fire alarm
 - Initiation device
 - Notification device
 - Control panel
 - Annunciators
 - Backup power
 - Conductors/wire
 - Communicators
 - Smoke management
 - Controllers
 - Dampers
 - Annunciators
 - Interlocks
 - Fans
 - Exhaust
 - Initiation device
 - Communication
 - Fire department communication system
 - Refuge area communication

- Repeaters
 - External
 - Internal
- Public address
- Fire underground
 - Pipe
 - Thrust block
 - Backflow prevention devices
 - Valves
 - Fire department connection
 - Cathodic protection
 - Mastic
 - Wrap
- Fire pumps
 - Controllers
 - Fuel system
 - Prime movers
 - Hangers and braces
 - Pressure maintenance (jockey) pump
- Fire sprinkler
 - Pipe
 - Hangers
 - Braces
 - Heads
 - Valves
- Standpipes
 - Pipe
 - Valves
 - Pressure reducing
 - Restrictor plates
 - Outlets
 - Hangers and braces
 - Hose
 - Nozzles
 - Fire department connection
- Engineered and pre-engineered
 - Suppression or extinguishing product(s)
 - Pipe
 - Valves
 - Nozzles
 - Heads
 - Hangers and braces
 - Interlocks
 - Fire alarm initiation device

- System notification device
 - Abort switch
 - Agent
 - Agent container
 - Mixer/proportioner
6. Describe engineering calculations for fire suppression and life safety systems
 7. Describe phased inspection and acceptance inspection/testing of completed installations
 8. Verify engineering calculations
 - Battery
 - Voltage drop
 - Hydraulic
 - Seismic
 - Thrust block
 9. Review specifications and read plans
 10. Classify occupancies for fire suppression systems
 - Light hazard
 - Ordinary hazard
 - Extra hazard
 - Special occupancy hazard
 11. Classify commodity classes
 - I
 - II
 - III
 - IV
 - High hazard commodities
 - Plastics
 - Group A
 - Group B
 - Group C
 - Mixed Commodities
 12. Interpret and apply codes and standards

Discussion Questions

1. What should be considered when specifying the location of fire department connections (FDCs)?
2. How does occupancy classification influence the need for fire protection and life safety systems?
3. How does a fire command center influence the coordination of fire protection and life safety systems?

Application

1. Given shop drawings for a fire alarm system, a fire sprinkler system, and a pre-engineered system, have each student evaluate each system for compliance with the minimum codes and standards.

Instructor Notes

1. See “The World's First Web-Based Hydraulic Graph $N^{1.85}$ for Water Supply and Demand Information” available at <https://pingfire.com/> for graphing water supply lines and evaluating sprinkler system design demand.

CTS Guide Reference: CTS 3-17

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.



Hazards and Special Operations Plan Review (2024)

Course Plan

Course Details

Certification:	Fire Plans Examiner
CTS Guide:	Fire Plans Examiner (2024)
Description:	This course provides the knowledge and skills that prepare a fire plans examiner to evaluate plans associated with design and systems integration, alternative compliance, wildland urban interface areas, and special operations including hazardous materials; equipment operations, and processes; and high-piled combustible storage.
Designed For:	Personnel preparing to pursue Fire Plans Examiner certification or anyone who performs the duties of a fire plans examiner within their agency
Prerequisites:	Fire Plans Examiner 1A: Building Plan Review (2024)
Standard:	Complete all activities and formative tests Complete all summative tests with a minimum score of 80%
Hours (Total):	31 hours (22.5 lecture / 6.5 application / 2 testing)
Maximum Class Size:	30
Instructor Level:	SFT Fire Plans Examiner Registered Instructor
Instructor/Student Ratio:	1:30 (lecture) 1:15 (application)
Restrictions:	None
SFT Designation:	CFSTES

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Required Resources

Instructor Resources

To teach this course, instructors need:

- California Building Code (CBC) (CCR, Title 24, current edition)
- California Fire Code (CFC) (CCR, Title 24, current edition)
- California Code of Regulations (CCR), Title 24, Part 7
- *Code Officials Guide to Performance Based Design Review* (SFPE, 2004)
- NFPA 4: Standard for Integrated Fire Protection and Life Safety System Testing (current edition)
- NFPA 13: Standard for the Installation of Sprinkler Systems (current edition)
- NFPA 550: Guide to Fire Safety Concepts Tree (current edition)
- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (current edition)
- *Plans Examiner for Fire and Emergency Services* (IFSTA, 2016)
- *WUI Virtual Handbook for Fire Risk Assessment & Mitigation* (SFPE, 2nd edition, 2025)
 - <https://www.sfpe.org/wuihandbook/home>
- Engineering scale
- Architectural scale
- Calculator

Online Instructor Resources

The following instructor resources are available online at <https://osfm.fire.ca.gov/what-we-do/state-fire-training/professional-certifications>:

- Activity 5-2: Safety Data Sheets

Student Resources

To participate in this course, students need:

- California Building Code (CCR, Title 24, current edition)
- California Fire Code (CCR, Title 24, current edition)
- NFPA 4: Standard for Integrated Fire Protection and Life Safety System Testing (current edition)
- NFPA 13: Standard for the Installation of Sprinkler Systems (current edition)
- NFPA 550: Guide to Fire Safety Concepts Tree (current edition)
- Engineering scale
- Architectural scale
- Calculator

Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility, which may include:
 - Writing board or paper easel chart
 - Markers, erasers
 - Amplification devices
 - Projector and screen
 - Laptop or tablet with presentation or other viewing software
 - Internet access with appropriate broadband capabilities
- A large room with tables to accommodate full-size plans for up to 30 students
- Two sets of plans, specifications, and details for each student or student group (At a minimum, documents should be sufficient to meet the objectives of Application activities designed by the instructor)
 - One set for course activities
 - One set for testing

Timetable

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.50	0.00	
Topic 1-2: Fire Plans Examiner Certification Process	0.50	0.00	
Unit 1 Totals	1.00	0.00	1.00
Unit 2: Design and Systems Integration			
Topic 2-1: Evaluating Design Concepts	2.00	0.00	
Topic 2-2: Evaluating Systems Integration	1.00	1.00	
Unit 2 Totals	3.00	1.00	4.00
Unit 3: Alternative Compliance			
Topic 3-1: Evaluating Performance-Based Design Concepts	1.00	0.00	
Topic 3-2: Evaluating a Proposed Alternative Method or Material for Compliance	1.00	0.00	
Topic 3-3: Evaluating Compliance with Construction Documents	0.50	0.00	
Unit 3 Totals	2.50	0.00	2.50
Unit 4: Wildland Urban Interface Areas			
Topic 4-1: Evaluating Development/Community or Wildland Urban Interface Landscape Plans	3.00	1.00	
Unit 4 Totals	3.00	1.00	4.00
Unit 5: Special Operations			
Topic 5-1: Evaluating Fire Protection Plans and Practices	0.50	0.00	
Topic 5-2: Evaluating Plans for Storage, Handling, and Use of Hazardous Materials	7.00	2.00	
Topic 5-3: Evaluating Compliance Approaches for Hazardous Materials	1.50	0.00	
Topic 5-4: Evaluating Plans for Equipment, Operations, and Processes	1.00	1.00	
Topic 5-5: Evaluating Protection Measure Approaches for Equipment, Operations, and Processes	1.00	0.00	
Topic 5-5: Evaluating a Plan with Special (High-piled Combustible) Storage Arrangements	2.00	1.50	
Unit 5 Totals	13.00	4.50	17.50
Formative Assessments			
Determined by AHJ or educational institution	0.00	0.00	0.00
Summative Assessment			
Determined by AHJ or educational institution	0.00	2.00	2.00

Course Totals	22.50	8.50	31.00

Timetable Key

1. The Timetable documents the amount of time estimated to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

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?

Application

1. Determined by instructor

Topic 1-2: Fire Plans Examiner Certification Process

Terminal Learning Objective

At the end of this topic a student will be able to identify the requirements for Fire Plans Examiner certification and describe the certification task book and examination process.

Enabling Learning Objectives

1. Identify the levels of certification in the Fire Plans Examiner certification track
2. Identify other Fire Prevention certification tracks
 - First Responder Inspector (2024) or Fire Inspector 1 (2014)
 - Fire Inspector (2024) or Fire Inspector 2 (2014)
 - Fire Marshal (2014 or 2024)
3. Identify the prerequisites for Fire Plans Examiner certification
 - None
4. Identify the course work required for Fire Plans Examiner certification
 - Fire Plans Examiner 1A: Building Plan Review (2024)
 - Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)
 - Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)
 - Statutes and Regulations (SFT)
5. Identify the exams requirements for Fire Plans Examiner certification
 - Not applicable
6. Identify the task book requirements for Fire Plans Examiner certification
 - Fire Plans Examiner Certification Task Book (2024)
7. Identify the experience requirements for Fire Plans Examiner certification
 - Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency in a fire prevention role with plan review as their primary responsibility
8. Identify the position requirements for Fire Plans Examiner certification
 - None
9. Describe the certification task book process
10. Describe the certification testing process
 - Not applicable
 - All formative and summative testing is completed in individual courses
 - Schedule skills evaluation test

Discussion Questions

1. Determined by instructor

Application

1. Determined by instructor

Unit 2: Design and Systems Integration

Topic 2-1: Evaluating Design Concepts

Terminal Learning Objective

At the end of this topic a student, given a preliminary design presentation, will be able to evaluate a proposed design concept so that the proposed concept meets the intent of applicable codes and standards and is in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe fire protection and life safety construction features
2. Describe codes and standards
3. Describe AHJ preliminary plan review procedures
4. Describe the approval process for alternative fire protection methodologies
5. Evaluate code compliance of conceptual designs
 - Construction
 - Exits and egress
 - Access and water supply
 - Fire protection and life safety systems

Discussion Questions

1. What other departments should a fire plans examiner consult during a design concept evaluation?
2. What are some design features or issues that could render a preliminary design unacceptable?
3. How are the design concept review and the adoption cycles for state and local codes and standards interrelated?

Application

1. Determined by instructor

Instructor Notes

1. For more information on this topic, see *Guidance Document for Incorporating Resiliency Concepts into NFPA Codes and Standards*. (Performance Technologies Inc. / www.nfpa.org)

CTS Guide Reference: CTS 3-2

Topic 2-2: Evaluating Systems Integration

Terminal Learning Objective

At the end of this topic a student, given a plan submittal, a life safety report, a sequence of operations report, and testing criteria, will be able to evaluate the integration of life safety, fire protection, security, and building service systems so that the integration of proposed systems meets the requirements or intent of applicable codes and standards and meets AHJ fire and life safety objectives, and any deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe AHJ fire and life safety objectives
 - Building and property protection
 - Life safety
 - Protection
 - Evacuation
 - Building protection vs. life safety
2. Describe fire protection and life safety systems and their integration
 - Construction
 - Separation
 - Egress
 - Fire protection and life safety systems
3. Evaluate system integration

Discussion Questions

1. What fire and life safety concerns apply to security systems?
2. How might the fire and life safety objectives of a fire agency differ from those of a property owner? Or the public?

Application

1. Given a high-rise plan, have students review the integrated systems to determine how the construction, fire protection and life safety, and building service systems work together to promote building and occupant survivability.

Instructor Notes

1. See NFPA 4: Standard for Integrated Fire Protection and Life Safety System Testing (current edition) for testing criteria.

CTS Guide Reference: CTS 3-14

Unit 3: Alternative Compliance

Topic 3-1: Evaluating Performance-Based Design Concepts

Terminal Learning Objective

At the end of this topic a student, given a preliminary design presentation, will be able to evaluate a performance-based design concept so that the proposed concept meets the intent of applicable codes and standards in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe fire protection construction features
2. Describe codes and standards
3. Describe technical reports and data sheets associated with performance-based designs
4. Describe AHJ preliminary plan review procedures
5. Describe performance-based concepts
6. Describe the approval process for alternative performance-based fire protection methodologies
7. Describe the development of appropriate input values based on building type and anticipated hazards and use
8. Identify AHJ code requirements
9. Identify other subject matter experts who may need to evaluate components of performance-based designs
10. Recognize deviations from the prescriptive code
11. Recognize and interpret performance-based proposals
12. Research professional reports and engineer evaluations
13. Determine and present appropriate design input values and parameters based on building type and anticipated hazards and use

Discussion Questions

1. In what circumstances or building types might a fire plans examiner be more likely to encounter a performance-based design concept?
2. What other AHJ subject matter experts may need to evaluate a performance-based design?
3. Who are the stakeholders that need to be notified when a plan deviates from adopted codes and standards prior to approving performance-based designs?

Application

1. Determined by instructor

Instructor Notes

1. Bring examples of performance-based design from your jurisdiction.
2. See NFPA 550: Guide to Fire Safety Concepts Tree (current edition).
3. See *Code Officials Guide to Performance Based Design Review* (SFPE, 2004)

CTS Guide Reference: CTS 3-22

Topic 3-2: Evaluating a Proposed Alternative Method or Material for Compliance

Terminal Learning Objective

At the end of this topic a student, given supporting documentation of a design that does not meet prescriptive code requirements, will be able to evaluate a proposed alternative method or material for compliance with applicable codes and standards so that the design meets the intent of applicable codes and standards.

Enabling Learning Objectives

1. Describe how a building should perform under adverse conditions
2. Describe objectives and performance requirements to reflect equivalent level of safety
 - Per AHJ
 - Per other performance-based regulation for a process or operation
3. Evaluate alternative proposals to prescriptive codes and standards
 - Unable to meet prescriptive code, but equivalent
 - Emerging technologies not yet codified
4. Identify resources for verifying code intent
 - ICC Code and Commentary
 - ISOR (Initial Statement of Reasons) (OSFM)
 - ICC ESR (Evaluation Service Report)
 - Third-party independent peer review

Discussion Questions

1. What liabilities can be created by approving a proposed alternative method or material?
2. Under what circumstances is it appropriate for an applicant to propose an alternative method or material to achieve compliance?

Application

1. Determined by instructor

Instructor Notes

1. Bring examples of proposed alternative method or material for compliance from your jurisdiction.
2. See NFPA 550: Guide to Fire Safety Concepts Tree (current edition).
3. See *Code Officials Guide to Performance Based Design Review* (SFPE, 2004)

CTS Guide Reference: CTS 2-6

Topic 3-3: Evaluating Compliance with Construction Documents

Terminal Learning Objective

At the end of this topic a student, given a performance-based design, will be able to evaluate compliance with construction documents so 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 and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Describe applicable codes and standards for installation and testing of fire protection systems
2. Describe means of egress
3. Describe building services equipment
4. Witness and document tests of fire protection systems and building services equipment
5. Evaluate means of egress
6. Evaluate building services equipment

Discussion Questions

1. How might an integrated design impact the ability to egress through corridor doors during an emergency?
2. How does the quality of plan review comments towards performance-based design help dictate the quality of the plan review resubmittal and back check?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 3-23

Unit 4: Wildland Urban Interface Areas

Topic 4-1: Evaluating Development/Community or Wildland Urban Interface Landscape Plans

Terminal Learning Objective

At the end of this topic a student, given a fire hazard severity zone map, a set of landscape plans for a development or community in a fire hazard severity zone, and a set of landscape plans for a wildland urban interface area, will be able to evaluate those plans so that plans are in compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures and required or applicable permits are issued.

Enabling Learning Objectives

1. Describe basic wildland fire behavior
2. Describe wildland urban interface fire progression
3. Describe fire hazard severity zone maps
 - SRA
 - LRA
4. Define wildland urban interface zones
 - Moderate fire hazard severity zone
 - High fire hazard severity zone
 - Very high fire hazard severity zone
 - Designated wildland urban interface areas
5. Describe codes and standards related to public areas of a development/community landscape plan
6. Describe codes and standards related to a wildland urban interface area landscape plan
7. Describe home ignition zones for defensible space
 - Zone 0
 - Zone 1
 - Zone 2
 - Zone 3
8. Describe the infrastructure considerations for grading and improvement plans
9. Identify and evaluate design and maintenance standards for open space areas adjacent to new development projects
10. Describe how to evaluate a vegetation management plan for buildings in a wildland urban interface area
11. Describe requirements for coordinating with applicable building and planning departments

Discussion Questions

1. At what point in a development or design process should wildland urban interface protection methods be identified?
2. What resources can a fire plans examiner use when evaluating wildland fuel hazards?
3. How would you approach a Zone 0 discussion with a registered design professional?

Application

1. Given landscape drawings for a residence in a designated fire hazard severity zone, have students evaluate the drawings for compliance with applicable codes and standards.

Instructor Notes

1. CCR code changes take effect in summer 2025. Make sure you are teaching the most current WUI content.
2. See CAL FIRE's [Fire Hazard Severity Zones](#), [Defensible Space](#), and [Wildfire Won't Wait!](#) resources.
3. See [Fire Safe Marin](#) resources.

CTS Guide Reference: CTS 3-24

Unit 5: Special Operations

Topic 5-1: Evaluating Fire Protection Plans and Practices

Terminal Learning Objective

At the end of this topic a student, given a submittal package describing a facility housing a complex process or operation, will be able to evaluate fire protection plans and practices so that the fire growth potential for all areas is determined and the level of protection is appropriate to the hazard and in accordance with the applicable codes and standards and the policies and procedures of the AHJ.

Enabling Learning Objectives

1. Describe fire behavior and growth potential
 - Fire diffusion process
 - Tetrahedron
 - Types of heat
 - Flame development
 - Stages of fire
 - Heat Exposures
2. Describe fire growth potential
3. Describe protection
4. Analyze scenarios
5. Describe evacuation procedures
6. Observe and recognize deficiencies
7. Evaluate hazards

Discussion Questions

1. How do geometric space and compartmentalization affect fire growth?
2. How does passive fire protection help mitigate fire impact?

Application

1. Determined by instructor

Instructor Notes

1. The ELOs in Topic 5-1 are covered in more specific contexts in the remaining Unit 5 topics. Teach this topic as an overview to prepare students for those topics.

CTS Guide Reference: CTS 3-11

Topic 5-2: Evaluating Plans for Storage, Handling, and Use of Hazardous Materials

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to evaluate plans for storage, handling, and use of hazardous materials so that the plans are reviewed for compliance and deficiencies are identified, documented, and reported in accordance with applicable AHJ codes, standards, policies, and procedures.

Enabling Learning Objectives

1. Identify codes and standards used to determine hazardous materials compliance
 - California Fire Code
 - California Building Code
 - Standards incorporated by reference
2. Describe how to classify an occupancy containing hazardous materials
 - Maximum allowable quantity (MAQ)
 - Occupancy-specific exceptions
 - Occupancy-specific requirements (CBC, Chapter 4)
3. Describe properties of hazardous materials
 - Solids
 - Liquids
 - Gases
4. Describe physical hazards
 - Explosives and blasting agents
 - Combustible liquids
 - Flammable solids, liquids and gases
 - Organic peroxide solids or liquids
 - Oxidizer, solids or liquids
 - Oxidizing gases
 - Pyrophoric solids, liquids or gases
 - Unstable (reactive) solids, liquids or gases
 - Water-reactive materials solids or liquids
 - Cryogenic fluids
5. Describe health hazards
 - Highly toxic and toxic materials
 - Corrosive materials
6. Describe how to read a Safety Data Sheet (SDS)
7. Describe how to classify mixtures
 - In accordance with hazards of the mixture as a whole
 - In accordance with nationally recognized reference standards
 - By an approved qualified organization, individual, or Safety Data Sheet (SDS)
 - By other approved methods
8. Describe applicable standards for the storage, handling, and use of hazardous materials
 - Maximum allowable quantities

- Control areas
 - Secondary containment
 - Spill control
 - Compatibility
 - Arrangement
 - Protection
9. Describe basic physical science as it relates to fire behavior and fire suppression
10. Identify reference materials and resources related to hazardous materials
- CUPA
 - CERS
 - HMBP
 - HMMP
 - HMIS
 - Hazard mitigation analysis
 - USDOT
 - NOAA
 - CAMEO
 - ALOHA
 - California Fire Inspection Guide
11. Verify the classification of hazardous materials using reference materials

Discussion Questions

1. Can you use a standard that is not incorporated by reference to evaluate code compliance? Why or why not?
2. How are the storage requirements for flammable liquids in a mercantile display different from storage requirements in a laboratory?
3. How would a plan reviewer address the use of hazardous materials or flammable liquid storage cabinets during the plan review process?

Application

1. Given applicable codes and standards and a list of occupancy types and use(s) with associated hazardous materials management plans (HMMP), have students research and identify the thresholds for maximum allowable quantities and determine compatibility of hazardous materials in multiple occupancies.
2. Given a floor plan with identified secondary containment and spill control locations and dimensions and the California Fire Code, have students determine code compliance.
3. Activity 5-2: Safety Data Sheets

Instructor Notes

1. This topic covers both CTS 3-18 (OSFM), and CTS 3-19 (NFPA 1030 paragraph 8.3.17). However, they will be evaluated separately and appear as two JPRs in the task book.

CTS Guide Reference: CTS 3-18, CTS 3-19

Topic 5-3: Evaluating Compliance Approaches for Hazardous Materials

Terminal Learning Objective

At the end of this topic a student, given field inspection reports and proposed compliance alternatives, will be able to evaluate compliance approaches for the storage, handling, and use of hazardous materials, so that the hazardous materials are provided with a level of safety that is in accordance with the intent of applicable codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Analyze safety data sheets (SDS)
2. Describe fire protection systems and equipment appropriate for the material
 - Fully-sprinklered building
 - Approved cabinets
 - Fume hoods
 - Enclosures
 - Drainage and containment
 - Listed/approved tanks
 - Gas detection systems
3. Describe safety procedures
4. Identify other agencies that have requirements and AHJs related to hazardous materials, chemical reactions, and storage compatibility
5. Observe, recognize, and communicate deficiencies
6. Read plans and reports
7. Read safety data sheets

Discussion Questions

1. How can fire protection systems impact the maximum allowable quantities of hazardous materials?
2. What information can a CUPA give a fire plans examiner to assist with plan review?

Application

1. Determined by instructor

Instructor Notes

1. This topic covers both CTS 3-12 (NFPA 1030 paragraph 8.3.12) and CTS 3-13 (paragraph 8.3.13). However, they will be evaluated separately and appear as two JPRs in the task book.

CTS Guide Reference: CTS 3-12, CTS 3-13

Topic 5-4: Evaluating Plans for Equipment, Operations, and Processes

Terminal Learning Objective

At the end of this topic a student, given a submittal package, will be able to evaluate plans for equipment, operations, or processes, so that the equipment, operation, or process is reviewed for compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with applicable AHJ codes, standards, policies, and procedures.

Enabling Learning Objectives

1. Describe hazards of various equipment, operations, and processes used in commercial and industrial occupancies covered in California Fire Code
 - Aviation facilities
 - Dry cleaning
 - Combustible dust-producing operations
 - Motor fuel-dispensing facilities and repair garages
 - Flammable finishes
 - Fruit and crop ripening
 - Fumigation and insecticidal fogging
 - Semiconductor fabrication facilities
 - Lumber yards and agro-industrial, solid biomass, and woodworking facilities
 - Manufacture of organic coatings
 - Industrial ovens
 - Tents, temporary event structures, and other membrane structures
 - High-piled combustible storage
 - Fire safety during construction and demolition
 - Tire rebuilding and storage
 - Welding and other hot work
 - Marinas
 - Combustible fibers
 - Processing and extraction facilities
 - Distilled spirits and wine storage
 - Motion picture/television production studio sound stages, approved production facilities and production locations
 - Indoor trade shows and exhibitions
 - Temporary haunted houses, ghost walks, and similar amusement uses
2. Describe hazards of various operations used in commercial and industrial occupancies covered in California Building Code
 - Covered mall and open mall buildings
 - High-rise buildings and Group 1-2 occupancies with occupied floors located more than 75 feet above lowest level of fire department vehicle access
 - Atriums
 - Underground buildings
 - Motor-vehicle-related occupancies

- Group 1-2
 - Group 1-3
 - Motion picture projection rooms
 - Stages, platforms, and technical production areas
 - Special amusement areas
 - Aircraft-related occupancies
 - Combustible storage
 - Hazardous materials
 - Groups H-1, H-2, H-3, H-4 and H-5
 - Spray application of flammable finishes
 - Drying rooms
 - Organic coatings
 - Artificial decorative vegetations
 - Groups R-1, R-2, R-2.1, R-2.2, R-3, R-3.1, and R-4
 - Hydrogen fuel gas rooms
 - Ambulatory care facilities
 - Storm shelters
 - Play structures
 - Hyperbaric facilities
 - Combustible dusts, grain processing, and storage
 - Medical gas systems
 - Special provisions for licensed 24-hour care facilities (in a Group R-2.1, R-3.1, R-4)
 - Group I-4
 - Road tunnels, bridges, limited-access highways
 - Horse racing stables
 - Pet kennels and boarding facilities
 - Combustion engines and gas turbines
 - Fixed guideway transit and passenger rail systems
 - Explosives
 - Winery caves
 - Public libraries
 - Group C
 - K-12 school facilities and Group E childcare
 - Group L
 - Large family day-care homes
3. Describe applicable standards for arrangement and protection of various equipment, processes, and operations used in commercial and industrial occupancies
 4. Read plans
 5. Interpret and apply codes and standards

Discussion Questions

1. How does your jurisdiction handle operational permits?

2. What types of equipment, operations, and processes create significant hazards for firefighters and other response personnel?

Application

1. Given a submittal package, an application to perform a special process or operation, and applicable codes and standards, have students evaluate for compliance with applicable codes and standards.

Instructor Notes

1. None

CTS Guide Reference: CTS 3-27

Topic 5-5: Evaluating Protection Measure Approaches for Equipment, Operations, and Processes

Terminal Learning Objective

At the end of this topic a student, given deficiencies noted during a field inspection of a facility and proposed alternative methods or materials, will be able to evaluate protection measure approaches for equipment, operations, and processes, so that the equipment, process, or operation is provided with a level of protection that complies with the intent of applicable codes and standards.

Enabling Learning Objectives

1. Describe applicable codes and standards adopted by the AHJ
2. Describe fire protection systems
 - Code required systems
 - Optional systems (still has to meet code requirements)
3. Describe safe necessary precautions
4. Make observations
5. Recognize deficiencies
6. Resolve conflicts

Discussion Questions

1. How would a fire plans examiner consider inquiries regarding the use of alternative fire protection systems?
2. How would a fire plans examiner establish reasonable fire and life safety when evaluating protection measure approaches.
3. Who edits NFPA and what is wrong with them?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 3-15

Topic 5-6: Evaluating a Plan with Special (High-piled Combustible) Storage Arrangements

Terminal Learning Objective

At the end of this topic a student, given a plan with special (high-piled combustible) storage arrangements, will be able to evaluate a plan with special (high-piled combustible) storage arrangements so that the deficiencies are identified, documented, and reported in accordance with adopted codes and standards and AHJ policies and procedures.

Enabling Learning Objectives

1. Describe how to apply AHJ codes and standards for special (high-piled combustible) storage arrangements
2. Describe storage arrangements and layout
 - Size
 - Height
 - Aisle width
 - Solid piled
 - Palletized
 - Shelf
 - Rack (single, double, multiple)
 - Automated
 - Specialty
 - Bin box
 - Flue spaces
 - Solid shelving
3. Determine commodity types
 - I
 - II
 - III
 - IV
 - High hazard commodities
 - Plastics
 - Group A
 - Group B
 - Group C
 - Mixed Commodities
4. Describe general fire protection and life safety requirements
 - Size of high-piled storage area
 - All storage areas
 - Solid-piled storage, shelf storage, and palletized storage
5. Describe fire protection system requirements for high-piled combustible storage arrangements
 - High-piled storage protection using control mode density area (CMDA) sprinklers
 - CMSA requirements for storage applications

- ESFR requirements for storage applications
- Alternative sprinkler system designs
- Rack storage protection using in-rack sprinklers

Discussion Questions

1. How can a fire plans examiner address firefighter safety regarding high-piled combustible storage?
2. When is storage limited to six feet in height?
3. Where might you find high-piled combustible storage without fire sprinklers?

Application

1. Given a plan (that includes high-piled combustible storage), measuring tools, and applicable codes and standards, have students classify commodities and identify additional building requirements to permit storage above 12 feet.

Instructor Notes

1. See Table 3206.2 (CFC) for ELO 4.
2. See NFPA 13 (current edition) for ELO 5.

CTS Guide Reference: CTS 3-20

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.

Safety Data Sheets

Activity 5-2

Format: Individual

Time Frame: 30-45 minutes

Description

This activity provides students with an opportunity to gain a deeper understanding Safety Data Sheets (SDS) and their role in evaluating plans for storing, handling, and using hazardous materials.

Materials

- Laptop, tablet, or phone
- Pen/pencil and paper

Background Information

- All SDS(s) are formatted the same way.
- Sections 1, 2, 3, 5, and 9 are the more important for fire plans examiners.
- Have the plan submitters provide them to you, don't research for them.
- If you need to, get the Chemical Abstract Service (CAS, also called a CASRN) number.
- This is the URL for the Safety Data Sheet Search website:
 - <https://chemicalsafety.com/sds-search/>

Instructions

1. Go to <https://chemicalsafety.com/sds-search/>
2. Look at the following three chemicals (selected by instructor):
 - _____
 - _____
 - _____
3. For each material, answer the following questions:
 - What is/are the primary hazard(s)?
 - Is the material corrosive? Strongly?
 - What is suitable fire extinguishing media?
 - What is the material's flashpoint?
 - Does the material have the potential to cause cancer?

Fire Plans Examiner

(NFPA 1030: Fire Plans Examiner)

Certification Task Book (2024)



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

Overview

Authority

This certification task book includes the certification training standards set forth in the Fire Plans Examiner Certification Training Standards Guide (2020) which is based on:

- NFPA 1030: Standard for Professional Qualifications for Fire Prevention Program Positions (2024)

Published: Month Year

Published by: State Fire Training, PO Box 944246, Sacramento, CA 94244-2460

Cover photo courtesy of Darwin Workman, CAL FIRE.

Purpose

The State Fire Training certification task book is a performance-based document that 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 position, and has demonstrated the job performance requirements to obtain that certification.

Assumptions

Except for the Fire Fighter and Emergency Vehicle Technician (EVT) certifications, a candidate may begin the task book initiation process upon completion of all required education components (courses).

Each job performance requirement (JPR) shall be evaluated after the candidate's fire chief initiates the task book.

An evaluator may verify satisfactory execution of a job performance requirement (JPR) through the following methods:

- First-hand observation
- Review of documentation that verifies prior satisfactory execution

State Fire Training task books do not count towards the NWCG task book limit. There is no limit to the number of State Fire Training task books a candidate may pursue at one time if the candidate meets the initiation requirements of each.

It is the candidate's responsibility to routinely check the State Fire Training website for updates to an initiated task book. All State Fire Training issued updates to an initiated task book are required for task book completion.

A candidate must complete a task book within five years its initiation date. Otherwise, a candidate must initiate a new task book using the certification's current published version.

Roles and Responsibilities

Candidate

The candidate is the individual pursuing certification.

Initiation

The candidate shall:

1. Complete all Initiation Requirements.
 - Please print or type.
2. Obtain their fire chief's signature as approval to open the task book.
 - A candidate may not obtain evaluation signatures prior to the fire chief's initiation approval date.

Completion

The candidate shall:

1. Complete all Job Performance Requirements.
 - Ensure that an evaluator initials, signs, and dates each task to verify completion.
2. Complete all Completion Requirements.
3. Sign and date the candidate verification statement under Review and Approval with a handwritten signature.
4. Obtain their fire chief's handwritten (not stamped) signature on the fire chief verification section.
5. Create and retain a physical or high-resolution digital copy of the completed task book

Submission

The candidate shall:

1. Submit a copy (physical or digital) of the completed task book and any supporting documentation to State Fire Training.
 - See Submission and Review below.

A candidate should not submit a task book until they have completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

Evaluator

An evaluator is any individual who verifies that the candidate can satisfactorily execute a job performance requirement (JPR).

An evaluator may verify satisfactory execution through the following methods:

- First-hand observation
- Review of documentation that verifies prior satisfactory execution

A qualified evaluator is designated by the candidate's fire chief* and holds an equivalent or higher-level certification. If no such evaluator is present, the fire chief shall designate an individual with more experience than the candidate and a demonstrated ability to execute the job performance requirements.

A task book evaluator may be, but is not required to be, a registered skills evaluator who oversees a State Fire Training certification exam.

A certification task book may have more than one evaluator.

All evaluators shall:

1. Complete a block on the Signature Verification page with a handwritten signature.
2. Review and understand the candidate's certification task book requirements and responsibilities.
3. Verify the candidate's successful completion of one or more job performance requirements through observation or review.
 - Do not evaluate any job performance requirement (JPR) until after the candidate's fire chief initiates the task book.
 - Sign all appropriate lines in the certification task book with a handwritten signature or approved digital signature (e.g., DocuSign or Adobe Sign) to record demonstrated performance of tasks.

* For certification task books that do not require fire chief initiation, academy instructors serve as or designate evaluators.

Fire Chief

The fire chief is the individual who initiates (when applicable) and then reviews and confirms the completion of a candidate's certification task book.

A fire chief may identify an authorized designee already on file with State Fire Training to fulfill any task book responsibilities assigned to the fire chief. (See *State Fire Training Procedures Manual*, 4.2.2: Authorized Signatories.)

Initiation

The fire chief shall:

1. Review and understand the candidate's certification task book requirements and responsibilities.

2. Verify that the candidate has met all Initiation Requirements prior to initiating the candidate's task book.
3. Open the candidate's task book by signing the Fire Chief Approval verification statement with a handwritten (not stamped) signature.
4. Designate qualified evaluators.

Completion

The fire chief shall:

1. Confirm that the candidate has obtained the appropriate signatures to verify successful completion of each job performance requirement.
 - Ensure that all Job Performance Requirements were evaluated after the initiation date.
2. Confirm that the candidate meets the Completion Requirements.
3. Sign and date the Fire Chief verification statement under Review and Approval with a handwritten signature.
 - If signing as an authorized designee, verify that your signature is on file with State Fire Training.

Submission and Review

A candidate should not submit a task book until they have completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

To submit a completed task book, please send the following items to the address below:

- A copy of the completed task book (candidate may retain the original)
- All supporting documentation
- Payment

State Fire Training
Attn: Certification
PO Box 944246
Sacramento, CA 94244-2460

State Fire Training reviews all submitted task books.

- If the task book is complete, State Fire Training will authorize the task book and retain a digital copy of the authorized task book in the candidate's State Fire Training file.
- If the task book is incomplete, State Fire Training will return the task book with a notification indicating what needs to be completed prior to resubmission.

Completion of this certification task book is one step in the certification process. Please refer to the *State Fire Training Procedures Manual* for the complete list of qualifications required for certification.

Initiation Requirements

The following requirements must be completed prior to initiating this task book.

Candidate Information

Name: _____

SFT ID Number: _____

Fire Agency: _____

Prerequisites

State Fire Training confirms that there are no prerequisites required for this certification.

Education

The candidate has completed the following course(s).

- Fire Plans Examiner 1A: Building Plan Review (2024)
- Fire Plans Examiner 1B: Fire Protection and Life Safety Systems Plan Review (2024)
- Fire Plans Examiner 1C: Hazards and Special Operations Plan Review (2024)
- Statutes and Regulations (SFT - Completed within the last 10 years)

Include documentation to verify education requirements unless verification is already documented in your SFT User Portal.

Fire Chief Approval

Candidate's Fire Chief (please print): _____

I, the undersigned, am the person authorized to verify the candidate's task book initiation requirements and to initiate State Fire Training task books. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements to open the task book documented herein are true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documentation may be cause for rejection.

Signature: _____ Date: _____

Signature Verification

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

Please print except for the Signature line where a handwritten signature is required.
Add additional signature pages as needed.

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

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Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Job Performance Requirements

The candidate must complete each job performance requirement (JPR) in accordance with the standards of the authority having jurisdiction (AHJ) or the National Fire Protection Association (NFPA), whichever is more restrictive.

When California requirements exceed or require revision to the NFPA standard, the corresponding Office of the State Fire Marshal-approved (OSFM) additions or revisions appear in gray.

All JPRs must be completed within a California fire agency or State Fire Training Accredited Regional Training Program (ARTP).

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

Each JPR shall be evaluated after the candidate's fire chief initiates the task book.

Administration

1. Prepare reports, given observations from a plan review, so that reports are clear and concise and reflect the findings of a plan review in accordance with applicable codes and standards and the policies and procedures of the AHJ. (NFPA 8.2.1) (CTS 2-1)

Evaluator Signature: _____ Date Verified: _____

2. Create plan review checklists and forms, given applicable codes, standards, and departmental policies and procedures, so that the materials developed address key issues and clearly express code requirements of the AHJ. (NFPA 8.2.2) (CTS 2-2)

Evaluator Signature: _____ Date Verified: _____

3. Facilitate the resolution of deficiencies identified during a plan review, given a plan submittal and established policies and procedures of the jurisdiction, so that deficiencies are identified, documented, and reported to the plan submitter with applicable references to codes and standards. (NFPA 8.2.3) (CTS 2-3)

Evaluator Signature: _____ Date Verified: _____

4. Process plan review documents, given a submittal package, so that required permits are issued in accordance with AHJ policies and procedures. (NFPA 8.2.4) (CTS 2-4)

Evaluator Signature: _____ Date Verified: _____

5. Determine the applicable code or standard, given a fire protection or life safety issue, so that the proper document, edition, and section are referenced. (NFPA 8.2.5) (CTS 2-5)

Evaluator Signature: _____ Date Verified: _____

6. Evaluate a proposed alternative method or material for compliance with applicable codes and standards, given supporting documentation of a design that does not meet prescriptive code requirements, so that the design meets the intent of applicable codes and standards. (NFPA 8.2.6) (CTS 2-6)

Evaluator Signature: _____ Date Verified: _____

Plans Review

7. Identify the requirements for fire protection or a life safety system, given a submittal package, so that deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.1) (CTS 3-1)

Evaluator Signature: _____ Date Verified: _____

8. Evaluate a design concept, given a preliminary design presentation, so that the proposed concept meets the intent of applicable codes and standards in accordance with the policies and procedures of the AHJ. (NFPA 8.3.2) (CTS 3-2)

Evaluator Signature: _____ Date Verified: _____

9. Verify the occupancy classification, given a submittal package, specifications, and a description of a building and its intended use, so that the classification is made in accordance with the applicable codes and standards and the policies and procedures of the AHJ. (NFPA 8.3.3.) (CTS 3-3)

Evaluator Signature: _____ Date Verified: _____

10. Verify the construction type, given a submittal package, including the occupancy classification area, height, number of stories, and location, so that the building is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported. (NFPA 8.3.4) (CTS 3-4)

Evaluator Signature: _____ Date Verified: _____

11. Verify the occupant load, given a submittal package, so that the maximum allowable occupant load is in accordance with applicable codes and standards. (NFPA 8.3.5) (CTS 3-5)

Evaluator Signature: _____ Date Verified: _____

12. Verify that egress elements are provided, given a submittal package, an area's identified use, and an occupant load, so that all egress elements and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.6) (CTS 3-6)

Evaluator Signature: _____ Date Verified: _____

13. Evaluate code compliance for required fire flow and hydrant location and spacing, given a submittal package, codes and standards, and fire flow test results, so that hydrants are correctly located, required fire flow is determined, and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.7) (CTS 3-7)

Evaluator Signature: _____ Date Verified: _____

14. Evaluate emergency vehicle access, given a submittal package, so that emergency access is provided in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.8) (CTS 3-8)

Evaluator Signature: _____ Date Verified: _____

15. Develop policies and procedures for the administration of plan review functions, given management objectives, so that policies are defined and are in accordance with the legal obligations of the AHJ. (NFPA 8.3.9) (CTS 3-9)

Evaluator Signature: _____ Date Verified: _____

16. Participate in legal proceedings, given the findings of a plan review and consultation with legal counsel, so that testimony is factual and appropriate to the proceedings. (NFPA 8.3.10) (CTS 3-10)

Evaluator Signature: _____ Date Verified: _____

17. Evaluate fire protection plans and practices, given a submittal package describing a facility housing a complex process or operation, so that the fire growth potential for all areas is determined and the level of protection is appropriate to the hazard and in accordance with the applicable codes and standards and the policies and procedures of the AHJ. (NFPA 8.3.11) (CTS 3-11)

Evaluator Signature: _____ Date Verified: _____

18. Evaluate compliance approaches for the storage, handling, and use of flammable or combustible liquids and gases, given field inspection reports and proposed compliance alternatives, so that the storage, handling, and use is provided with a level of safety that is in accordance with the intent of applicable codes and standards and the policies of the AHJ. (NFPA 8.3.12) (CTS 3-12)

Evaluator Signature: _____ Date Verified: _____

19. Evaluate compliance approaches for the storage, handling, and use of hazardous materials, given field inspection reports and proposed compliance alternatives, so that the hazardous materials are provided with a level of safety that is in accordance with the intent of applicable codes and standards and the policies of the AHJ. (NFPA 8.3.13) (CTS 3-13)

Evaluator Signature: _____ Date Verified: _____

20. Evaluate the integration of life safety, fire protection, security, and building service systems, given a plan submittal, a life safety report, a sequence of operations report, and testing criteria, so that the integration of proposed systems meets the requirements or intent of the applicable codes and standards and meets the fire and life safety objectives of AHJ and any deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.14) (CTS 3-14)

Evaluator Signature: _____ Date Verified: _____

21. Evaluate protection measure approaches for equipment, operations, and processes, given deficiencies noted during a field inspection of a facility and proposed alternative methods or materials, so that the equipment, process, or operation is provided with a level of protection that complies with the intent of applicable codes and standards. (NFPA 8.3.15) (CTS 3-15)

Evaluator Signature: _____ Date Verified: _____

22. Evaluate the need for fire protection and life safety systems, given a building plan submittal, so that the systems and equipment are identified and deferred submittals are identified, documented, and requested in accordance with applicable codes and standards and AHJ policies and procedures. (OSFM) (CTS 3-16)

Evaluator Signature: _____ Date Verified: _____

23. Evaluate plans for the installation of fire protection and life safety systems, given a plan submittal, so that the systems and equipment are reviewed and deficiencies are identified, documented, and reported in accordance with applicable codes and standards and with the policies and procedures of the AHJ. (NFPA 8.3.16) (CTS 3-17)

Evaluator Signature: _____ Date Verified: _____

24. Evaluate plans for storage, handling, and use of flammable and combustible liquids and gases, given a submittal package, so that the plans are reviewed and deficiencies are identified, documented, and reported in accordance with the applicable codes, standards, policies, and procedures of the jurisdiction. (OSFM) (CTS 3-18)

Evaluator Signature: _____ Date Verified: _____

25. Evaluate plans for storage, handling, and use of hazardous materials, given a submittal package, so that the plans are reviewed for compliance and deficiencies are identified, documented, and reported in accordance with the applicable codes, standards, policies, and procedures of the AHJ. (NFPA 8.3.17) (CTS 3-19)

Evaluator Signature: _____ Date Verified: _____

26. Evaluate a plan with special (high-piled combustible) storage arrangements, given a submittal package, so that deficiencies are identified, documented, and reported in accordance with adopted codes and standards and the policies and procedures of the AHJ. (NFPA 8.3.18) (CTS 3-20)

Evaluator Signature: _____ Date Verified: _____

27. Evaluate heating, ventilation, air conditioning, and other building service equipment and operations, given a submittal package, so that the systems and other equipment are designed in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with the policies and procedures of the AHJ. (NFPA 8.3.19) (CTS 3-21)

Evaluator Signature: _____ Date Verified: _____

28. Evaluate a performance-based design concept, given a preliminary design presentation, so that the proposed concept meets the intent of applicable codes and standards in accordance with the policies and procedures of the AHJ. (NFPA 8.3.20) (CTS 3-22)

Evaluator Signature: _____ Date Verified: _____

29. Evaluate compliance with construction documents, given a performance-based design, so 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 and deficiencies are identified, documented, and reported in accordance with the policies of the AHJ. (NFPA 8.3.21) (CTS 3-23)

Evaluator Signature: _____ Date Verified: _____

30. Evaluate landscape plans for a development, community, or a wildland urban interface, given a fire hazard severity zone map, a set of landscape plans for a development or community in a fire hazard severity zone, and a set of landscape plans for a wildland urban interface area, so that plans are in compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures and required or applicable permits are issued. (OSFM) (CTS 3-24)

Evaluator Signature: _____ Date Verified: _____

31. Evaluate a proposed modification or change in occupancy for a building or portion of a building, given a submittal package for an existing building or portion of a building and building record, so that the modification or change complies with applicable codes and standards, and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures. (OSFM) (CTS 3-25)

Evaluator Signature: _____ Date Verified: _____

32. Evaluate proposed passive fire protection elements of a building or portion of a building, given a submittal package for a building or facility, so that the protection provided for the facility is in accordance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with AHJ policies and procedures. (OSFM) (CTS 3-26)

Evaluator Signature: _____ Date Verified: _____

33. Evaluate plans for equipment, operations, or processes, given a submittal package, so that the equipment, operation, or process is reviewed for compliance with applicable codes and standards and deficiencies are identified, documented, and reported in accordance with applicable codes, standards, policies, and procedures of the jurisdiction. (OSFM) (CTS 3-27)

Evaluator Signature: _____ Date Verified: _____

34. Navigate plan sets, given a submittal package and plan review tools, so that plans are read and reviewed in accordance with plan review best practices. (OSFM) (CTS 3-28)

Evaluator Signature: _____ Date Verified: _____

Completion Requirements

The following requirements must be completed prior to submitting this task book.

Experience

The candidate meets one of the following experience requirements.

- Has a minimum of one (1) year full-time paid experience or two (2) years' volunteer or part-time paid experience in a recognized California fire agency in a fire prevention role with plan review as their primary responsibility

Agency	Experience	Start Date	End Date

Include documentation to verify experience requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

Position

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

Supporting Documentation

State Fire Training confirms that there are no supporting documentation requirements for this job function certification.

Updates

The candidate has completed and enclosed all updates to this certification task book released by State Fire Training since its initial publication.

Number of enclosed updates: _____

Completion Timeframe

The candidate has completed all requirements documented in this certification task book within five years of its initiation date.

Initiation Date (see Fire Chief signature under **Initiation Requirements**): _____

Review and Approval

Candidate

Candidate (please print): _____

I, the undersigned, am the person applying for certification. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein is true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documentation may be cause for rejection or revocation.

Signature: _____ Date: _____

Fire Chief

Candidate's Fire Chief (please print): _____

I, the undersigned, am the person authorized to verify the candidate's qualifications for certification. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein are true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documentation may be cause for rejection.

Signature: _____ Date: _____