

MODULE I – LESSON 1: Authority And Jurisdiction

OBJECTIVES

The Fire Inspector candidate will recognize the need for a permit, given a situation or condition, so that requirements for permits are communicated in accordance with the applicable codes and standards and the policies of the jurisdiction. (NFPA 1031:4.2.2)

The Fire Inspector candidate will recognize the need for plan review, given a situation or condition, so that requirements for plan reviews are communicated in accordance with the applicable codes and standards and the policies of the jurisdiction. (NFPA 1031:4.2.3)

The Fire Inspector candidate will investigate common complaints, given a reported situation or condition, so that complaint information is recorded, the AHJ-approved process is initiated, and the complaint is resolved. (NFPA 1031:4.2.4)

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Describe the policies of the jurisdiction related to the permit process
2. Describe the rationale for permits for fire protection related issues
3. Describe the plan review policies of the jurisdiction
4. Describe the rationale for the plan review for fire protection related issues
5. Identify the fire protection related codes and standards adopted by the jurisdiction
6. Describe the policies of the jurisdiction related to complaints
7. Interpret the fire protection codes and standards applicable to the candidates jurisdiction
8. Report the findings of a complaint investigation
9. Recognize fire code violations during a complaint investigation
10. Refer complaints that are not in the inspectors jurisdiction to the proper agency

MODULE I – LESSON 2: Administrative Functions

OBJECTIVES

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

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Describe the policies of the jurisdiction related to inspections and reports.
2. Communicate orally and in writing.

MODULE I – LESSON 3: Testimony

OBJECTIVES

The Fire Inspector candidate will participate in legal proceedings, given the findings of a field inspection or a complaint and consultation with legal counsel, so that all information is presented and the inspector's demeanor is professional.

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Describe the legal requirements pertaining to evidence rules.
2. Define the types of legal proceedings and how they may involve a Fire Inspector.
3. Maintain an appropriate courtroom demeanor.
4. Communicate clearly in a courtroom setting.
5. Listen to questions in a courtroom setting.
6. Differentiate facts from opinions and communicate such in a courtroom setting.

MODULE I – LESSON 4: Use and Interpretation of Codes and Standards

OBJECTIVES

The Fire Inspector candidate will identify the applicable code or standard, given a fire protection, fire prevention, or life safety issue, so that the applicable document, edition, and section are referenced.

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Apply codes and standards adopted by the jurisdiction.
2. Propose changes to codes and standards.
3. Make proper decisions and interpret codes.
4. Conduct code-related research on a fire protection related issue.
5. Interpret the fire protection codes and standards applicable to the candidates jurisdiction.

MODULE II – LESSON 1: Building Construction

OBJECTIVES

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

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. List codes and standards adopted by the jurisdiction that are applicable to construction type classification.
2. Describe construction classifications defined by NFPA 1, 12.2 and A.12.2.
3. Describe the purpose of requiring rated construction components in specific occupancies.
4. Describe the methods used to determine fire related ratings for structural components.
5. Describe accepted building construction methods and materials for the NFPA 1, 12.2 and A.12.2 construction classifications.
6. Interpret code requirements related to construction type.

This lesson provides the students with basic information about building construction and the various classifications used for types of construction. The fire inspector will use this information in the evaluation of buildings and the fire resistance of the components used in construction. This information also provides the fire inspector with knowledge that can be applied to identify potential failure modes when conducting an inspection.

MODULE II – LESSON 2: Fire Behavior

OBJECTIVES

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

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Apply the principles of fire behavior to the determination of hazardous conditions within a facility being inspected.
2. Apply the principles of flame spread and smoke development ratings of contents, interior finishes, building construction elements, decorations, decorative materials, and furnishings to the determination of hazardous conditions within a facility being inspected.
3. Apply knowledge of safe housekeeping practices to the determination of hazardous conditions within a facility being inspected.
4. Interpret codes related to the limitation of hazardous conditions.
5. Recognize hazardous conditions.

MODULE II – LESSON 3: Reading and Using Plans

OBJECTIVES

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

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Apply knowledge of fire protection symbols and terminology to the reading of a plan or shop drawing.
2. Read and comprehend plans for fire protection systems
3. Make field observations and relate them to shop drawings

MODULE II – LESSON 4: Conducting the Fire Inspection

OBJECTIVES

The Fire Inspector candidate will perform assigned inspections, and determine code compliance, given the codes, standards, and policies of the jurisdiction and a fire protection issue, so that the applicable codes, standards, and policies are identified and compliance is determined. (4.3.15)

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

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

At the end of this lesson the Fire Inspector I candidate will be able to:

1. Apply the principles of fire behavior to the determination of hazardous conditions within a facility being inspected.
2. Apply the principles of flame spread and smoke development ratings of contents, interior finishes, building construction elements, decorations, decorative materials, and furnishings to the determination of hazardous conditions within a facility being inspected.
3. Apply knowledge of safe housekeeping practices to the determination of hazardous conditions within a facility being inspected.
4. Make inspection related observations.
5. Make determinations regarding code compliance related to an inspection.
6. Complete inspection reports.
7. Recognize hazardous and/or noncompliant conditions.
8. Make decisions regarding code compliance.
9. Apply knowledge of emergency vehicle access and accessibility requirements to the evaluation of a building site.

10. Identify the emergency access requirements contained in the applicable codes and standards.
11. Make observations during a site inspection.
12. Use measuring tools
13. Identify the fire protection related codes and standards adopted by the jurisdiction.
14. Describe the policies of the jurisdiction related to inspections and the reporting of findings.
15. Interpret the fire protection codes and standards applicable to the candidate's jurisdiction.
16. Prepare an inspection report so that the findings are clearly expressed.
17. Verbally communicate the findings of an inspection.

MODULE III – LESSON 1: Occupancy Classification

OBJECTIVES

The fire inspector candidate will be able to identify the occupancy classification of single-use occupancy, given a description of the occupancy and its use, so that the classification is made according to the applicable codes and standards with 100 percent accuracy. (4.3.1)

At the completion of this lesson the fire inspector candidate shall be able to:

1. Define each of the occupancy classifications established in Chapter 6 of NFPA 101
2. Describe the operational features of each of the occupancy classifications
3. Compare and contrast the codes, standards and regulations that relate to occupancy classification that are applicable in the inspector's jurisdiction with the classifications provided in Chapter 6 of NFPA 101, 2012
4. Describe the fire related hazards specific to each occupancy classification
5. Compile field observations regarding a single-use occupancy
6. Interpret field observations to make occupancy classification decisions

MODULE III – LESSON 2: Inspecting Means of Egress

OBJECTIVES

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

Enabling Objectives.

1. Discuss the codes and standards adopted by the jurisdiction that are applicable to means of egress.
2. Describe the maintenance requirements for means of egress elements.
3. Compare the means of egress requirements for each occupancy type.
4. Describe the relationship between fixed fire protection systems and means egress requirements.
5. The ability to observe and recognize problems with egress components.
6. The ability to calculate exit capacity of a component and a space.
7. The ability to make basic decisions related to compliance of a means of egress.
8. The ability to use measuring tools during the evaluation of egress components.

MODULE III – LESSON 3: Occupant Load

OBJECTIVES

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

Enabling Objectives

1. Discuss the codes, standards, and regulations of the jurisdiction that are applicable to the computation of an occupant load.
2. Describe operational features of each of the NFPA 101, 2012 occupancy classifications as they relate to the computation of an occupant load.
3. Describe the fire related hazards specific to each occupancy classification with relation to the occupant load.
4. Describe how occupant load factors impact the computed occupant load
5. Calculate the occupant load of a building or space
6. Differentiate between the occupancy factors related to various occupancy types defined by NFPA 101.

MODULE III – LESSON 4: Emergency Planning and Preparedness

OBJECTIVES

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

The Fire Inspector candidate will recognize the need for plan review, given a situation or condition, so that requirements for plan reviews are communicated in accordance with the applicable codes and standards and the policies of the jurisdiction. (NFPA 1031:4.2.3)

The Fire Inspector candidate will investigate common complaints, given a reported situation or condition, so that complaint information is recorded, the AHJ-approved process is initiated, and the complaint is resolved. (NFPA 1031:4.2.4)

Enabling Objectives

At the end of this lesson the Fire Inspector I candidate should be able to:

1. Discuss the requirements relative to emergency evacuation drills for the occupancy classifications defined by NFPA 101, 2012.
2. Apply knowledge of fire/emergency evacuation drill procedures to a specific occupancy.
3. Evaluate a fire/emergency evacuation drill.
4. Apply the principles of human behavior in fire and emergency conditions to the evaluation of fire/emergency evacuation plans and drills.
5. Apply knowledge of emergency planning and preparedness requirements to the interpretation of emergency plans and reports documenting drills.

MODULE IV – LESSON 1: Water Based Systems

OBJECTIVES

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

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

Enabling Objectives

At the end of this lesson the Fire Inspector Candidate will be able to:

1. Describe the operation and basic components of an automatic sprinkler system
2. Describe the operation and basic components of a standpipe system
3. Identify the codes and standards applicable to the installation, maintenance and testing of fixed water based fire protection systems.
4. Recognize problems related to the operational readiness of water based suppression systems
5. Read inspection and maintenance reports for water based suppression systems
6. Identify the types of water distribution systems and other water sources in the local community
7. Describe flow testing methods and procedures for water distribution systems
8. Describe the characteristics of public and private water supply systems
9. Demonstrate the use of a Pitot tube and gauges for flow testing
10. Calculate and graph fire flow results

MODULE IV – LESSON 2: Special Agent Systems

OBJECTIVES

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

At the end of this lesson the Fire Inspector I Candidate will be able to:

1. Describe the operation and basic components of special agent fire protection systems
2. Identify the codes and standards applicable to the installation, maintenance and testing of fixed special agent fire protection systems.
3. Recognize problems related to the operational readiness of special agent suppression systems
4. Read inspection and maintenance reports for special agent suppression systems

MODULE IV – LESSON 3: Detection and Alarm Systems

OBJECTIVES

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

At the end of this lesson the Fire Inspector I Candidate will be able to:

1. Describe the operation and basic components of a fire detection and alarm system and associated devices.
2. Identify the codes and standards applicable to the installation, maintenance and testing of fire detection and alarm systems.
3. Recognize problems related to the operational readiness of fire detection and alarm systems
4. Read inspection and maintenance reports for fire detection and alarm systems

MODULE IV – LESSON 4: Fire Extinguishers

OBJECTIVES

The Fire Inspector candidate will determine the operational readiness of existing portable fire extinguishers, given field observations and test documentation, given test and inspection documentation and field observations, so that the extinguishers are in an operational state, maintenance is documented, and all deficiencies are identified. (4.3.7)

At the end of this lesson the Fire Inspector Candidate will be able to:

1. Describe the operation and basic components of portable fire extinguishers
2. Evaluate the placement of installed portable fire extinguishers
3. Identify the codes and standards applicable to the installation, maintenance and testing of portable fire extinguishers.
4. Recognize problems related to the operational readiness of fire extinguishers.
5. Read and interpret inspection and maintenance reports for fire extinguishers

MODULE V – LESSON 1: Properties of Hazardous Materials

OBJECTIVES

To properly conduct inspections involving the storage, handling and use of hazardous materials, the fire inspector must understand the properties of those materials. They should also know how to interpret information provided in resource materials and just what information is available and where to find it.

The Fire Inspector candidate will inspect facilities with incidental storage, handling, and use of flammable and combustible liquids and gases, given inspection guidelines from the authority having jurisdiction, so that compliance with applicable codes and standards is verified and all deficiencies are identified. (4.3.12)

The Fire Inspector candidate will inspect facilities where hazardous materials are stored, handled or used given inspection guidelines from the authority having jurisdiction, so that compliance with applicable codes and standards is verified and all deficiencies are identified. (4.3.13)

At the end of this Lesson the fire inspector candidate will be able to:

1. Apply the properties of flammable and combustible liquids and gases to inspection situations.
2. Interpret codes related to the storage, handling and use of flammable and combustible liquids and gases.
3. Apply the properties of hazardous materials to inspection situations.
4. Describe the impact that hazardous materials may have on fire growth and development.
5. Interpret codes related to the storage, handling and use of hazardous materials.

MODULE V – LESSON 2: Classification of Hazardous Materials

OBJECTIVES

The Fire Inspector candidate will inspect facilities with incidental storage, handling, and use of flammable and combustible liquids and gases, given inspection guidelines from the authority having jurisdiction, so that compliance with applicable codes and standards is verified and all deficiencies are identified. (4.3.12)

The Fire Inspector candidate will inspect facilities where hazardous materials are stored, handled or used given inspection guidelines from the authority having jurisdiction, so that compliance with applicable codes and standards is verified and all deficiencies are identified. (4.3.13)

At the end of this lesson the fire inspector candidate will be able to:

1. Describe the classification and labeling of hazardous materials.
2. Describe the classification and labeling of flammable and combustible liquids and gases.

MODULE V – LESSON 3: Fire Prevention Practices for Hazardous Substances and Processes

OBJECTIVES

The Fire Inspector candidate will analyze facilities and processes where hazardous substances are stored, handled or used given field observations, inspection guidelines from the authority having jurisdiction, and the requirements of the jurisdiction, so that compliance with applicable codes and standards and good practice is verified and all deficiencies are identified. (4.3.8, 4.3.12, and 4.3.13)

At the end of this lesson the fire inspector candidate will be able to:

1. Determine the code requirements related to the storage, handling and use of hazardous substances
2. Apply knowledge of fire prevention practices to the prevention of fires involving the storage, handling and use of hazardous substances
3. Apply knowledge of fire behavior and potential sources of ignition to the prevention of fires involving the storage, handling and use of hazardous substances
4. Apply knowledge of proper housekeeping practices to the prevention of fires involving the storage, handling and use of hazardous substances and labeling of flammable and combustible liquids and gases.