FEDERAL EMERGENCY MANAGEMENT AGENCY UNITED STATES FIRE ADMINISTRATION

NATIONAL FIRE ACADEMY

FOREWORD

The Federal Emergency Management Agency (FEMA) was established in 1979. FEMA's mission is to focus Federal effort on preparedness for, mitigation of, response to, and recovery from emergencies encompassing the full range of natural and manmade disasters.

FEMA's National Emergency Training Center (NETC) in Emmitsburg, Maryland, includes the United States Fire Administration (USFA), its National Fire Academy (NFA), and the Emergency Management Institute (EMI).

To achieve the USFA's legislated mandate (under Public Law 93-498, October 29, 1974), "to advance the professional development of fire service personnel and of other persons engaged in fire prevention and control activities," the U.S. Fire Administration has developed an effective program linkage with established fire training systems which exist at the State and local levels. It is the responsibility of the USFA to support and strengthen these delivery systems. The field courses of the USFA's National Fire Academy have been sponsored by the respective State fire training systems in every State.

The USFA's National Fire Academy is proud to join with State and local fire agencies in providing educational opportunities to the members of the Nation's fire services.

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Bibliography

Glossary

COURSE GOAL

This course will provide an introduction to fire inspection principles and practices illustrating the complexity of today's building designs and systems and their potential impact on life safety, the environment, and property protection.

SCOPE OF THE COURSE

This course replaces *Conducting Basic Fire Prevention Inspections*. This new course considers the rapid changes in the field of fire prevention technology within the past decade, the increasing numbers of fire personnel and personnel from allied professions involved in inspections, and the publication of national standards.

This course provides a broad framework for the individual who has little or no experience in fire inspections. This frame of reference will help the new inspector to understand the scope of knowledge required and to identify the various steps in the inspection process.

This is the second course to be offered. It is highly recommended that the first course, titled *Introduction to Fire Inspection Principles and Practices*, be completed first before taking this course. Many of the basic principles contained in that course also will be applied to the various occupancies in this second course. It is assumed that the student is aware of those principles.

TARGET AUDIENCE

The primary audience is firefighting company personnel who have responsibility for conducting fire and life safety inspections, or personnel who have the responsibility of training firefighters.

A secondary audience is full-time inspection personnel with less than six months of experience. This audience includes inspection personnel from allied professions.

STUDENT FOREWORD

Course Organization

This is the second course in the series for inspectors. The first course, *Introduction to Fire Inspection Principles and Practices* (IFIPP), laid the foundation for the inspection process. This course deals with the inspection of specific occupancies, focusing on the critical elements that must be part of a thorough, systematic inspection process for each type of occupancy.

To avoid redundancy, the course is organized around occupancy classes rather than around the various fire protection systems or components to be inspected. Using the latter would have led to repetition, since many of the same system components appear in more than one type of occupancy. For example, the course could have discussed fire detection and signaling devices for each of the occupancy types chosen. Instead, the course examines fire detection and signaling devices in the Residential module, but with reference to other occupancies.

Remember that fire detection and signaling devices are found in other occupancies besides residential. This is a key point that bears repetition. You will need to transfer knowledge of various system components from one occupancy to other occupancies, as applicable. As an inspector, you will need to inspect these systems in more than one type of occupancy.

Module Organization

Except for the Introduction module, each module flows the same way. After defining the occupancy, you will identify common examples of the occupancy in your area and, if appropriate, any subclasses. Then, using your own experience, you will identify common hazards in those occupancies. These steps set the stage for a discussion of some of the critical inspection issues for that occupancy.

It is important to repeat that the presentation will not cover all of the relevant issues at one time, since some of these will appear in other modules. The developers organized the content this way because they believe the specific information presented is typical of that occupancy, or that the system component is characteristic of that occupancy.

Code Reference

This course will not be successful without constant referral to the code used in your jurisdiction. Throughout, this is referred to as "the applicable code." To derive the greatest benefit from the course, you need a copy of your applicable fire code. At a minimum, each small work group needs one. To attempt to complete this course without copies of your applicable code would be like training on hose evolutions without hoses.

The course references five basic fire prevention codes: the Standard Fire Code, the BOCA National Fire Code, the Uniform Fire Code, International Fire Code, and NFPA 1, *Fire Prevention Code*. In addition, the developers have referred to the National Fire Protection Association's (NFPA's) 101, *Life Safety Code*, and other NFPA standards when appropriate. Occasionally, there is mention of the applicable building code, since many jurisdictions have adopted these as well. The code applied is the one that was in effect when the building was constructed.

Because all students may not have easy access to building codes, the course materials include, when appropriate, relevant sections of the applicable building codes. They consist primarily of definitions and descriptions of occupancy types, subclasses, and similar information.

You, the Inspector

More and more people are becoming fire inspectors. They may be firefighters who inspect as well as fight fires, or they may be staff from other departments who have taken on new duties. Whoever they are, they are the people for whom the NFA developed this course.

This course is the start of a long journey of discovery. Fire inspection is an involved process and one that can take inspectors into fairly complex situations. But as long as the inspectors are willing to learn, and they know when to ask more experienced persons the right questions, the process will be easier. Those who approach the job prudently and thoughtfully are more likely to find it a rewarding experience.

This course is only part of an introduction to the business of fire inspection. It tries to impress on the learner three basic realities. The first is that while there are some common concerns in all occupancies, there also are very specific issues associated with each type of occupancy. The course will point this out repeatedly.

The second reality is that the code in use in the jurisdiction must become the inspector's bible. Inspectors need to know it well in order to apply it well.

The third reality is that fire inspection is the job of selling good fire prevention. One should not view inspection primarily as enforcement of rules and regulations. Rather, one should see it as an attempt to sell people on life and structural safety. This is what makes the job meaningful and worthwhile.

The authors of the course hope you have a successful journey.

TECHNICAL PRINCIPLES AND PRACTICES OF FIRE PREVENTION

COURSE SCHEDULE

Module I: Introduction

Module PA: Public Assembly

Module B: Business

Module R: Residential

Module ST: Storage

Module IN: Industrial

Module M: Mercantile

Module ED: Educational

Module SO: Special Occupancies

Module INS: Institutions

TOPIC DISTRIBUTION

The following table shows each major course topic and the module in which it receives primary emphasis. The module checked may not be the only location the topic appears, however. Each module also will provide general commentary on the critical inspection factors related to that topic.

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Commodity Storage										1	
Compressed Gases			√								
Cooking Hazards							√				
Decorative Materials							1				
Detection & Signaling Devices								1			
Egress Systems							√				
Electrical Hazards					√		√				
Fire Department Access								1			
Fire Extinguishers					1						
Fire Flow						1					
Fire Separations and Assembly Ratings	1				√						
Flammable and Combustible Liquids			1							√	
Halon Systems	√										
Hazardous Materials			√								
HVAC						√					
Interior Finishes							√				
Life Safety Factors		√	1	√					√		
Occupant Load							1				
Sprinkler Systems										۷	
Standpipe and Hose Systems	1										

Professional competency standards covered in the course materials.

NFPA 1031, Standards for Professional Qualifications for Fire Inspector (1998 edition).

The materials covered in this course and in the first 24-hour course, *Introduction to Fire Inspection Principles and Practices* meet or exceed the requirements for "Fire Inspector I."

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From the National Fire Protection Association, Quincy, MA 02269

NFPA Standard 10--98 Edition

Table 3-2.1

Table 3-3.1

Table 3-4

Table B-2.1

NFPA Standard 25--95 Edition

Table 2-1

Table 9-1

NFPA Life Safety Code, Standard 101, --97 Edition

Figure 14-1-4.1 Level of Restraint in Detention Facilities