**STATE OF NEW JERSEY  
DEPARTMENT OF COMMUNITY AFFAIRS**

**DIVISION OF FIRE SAFETY**

**FIRE INSPECTOR CERTIFICATION COURSE**



**Module 13**

**Specific Hazards**

*in cooperation with*

**Kean University Fire Safety Training Program**



**Time:** 6 hours

**Teaching/Learning Level:** *Cognitive- knowledge, comprehension, application.*

## Learning/Teaching Aids:

* Syllabus
* Board/easel pad
* Chalk/markers
* PC/laptop
* Projection unit
* Projection screen
* Power Point presentation
* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* ICC NJ edition 2015 International Fire Code
* NJ UCC Applicable Adopted code referenced sections
* IFSTA, Fire Inspection and Code Enforcement, 8th Edition
* Student Manual

**Behaviors to Foster**

Encourage students to listen carefully, take notes and to actively participate by asking questions and offering experiences that will foster discussion during lectures. It is imperative that they absorb and retain as much information as possible to assist them in having a solid foundation of knowledge for application in this field successfully completion the exam for this course and the State Certification exam which requires a score of 80% or better for passing as well.

**Tasks:**

* Understanding the requirements of the following chapters of the NJ UFC as they relate to the specific activities regulated:
  + Chapter 20 Aviation Facilities
  + Chapter 21 Dry Cleaning
  + Chapter 22 Combustible Dust-Producing Operations
  + Chapter 23 Motor Fuel Dispensing Facilities & Repair Garages
  + Chapter 24 Flammable Finishes
  + Chapter 25 Fruit & Crop Ripening
  + Chapter 26 Fumigation & Insecticidal Fogging
  + Chapter 27 Semiconductor Fabrication Facilities
  + Chapter 28 Lumber Yards & Agro-Industrial, Solid Biomass & Woodworking Facilities
  + Chapter 29 Manufacture of Organic Coatings
  + Chapter 30 Industrial Ovens
  + Chapter 31 Tents and Membrane Structures
  + Chapter 32 High-Piled Combustible Storage
  + Chapter 33 Fire Safety During COnstruction
  + Chapter 34 Tire Rebuilding & Tire Storage
  + Chapter 35 Welding & Other Hot Work
  + Chapter 36 marinas
  + Chapter 37 Combustible Fibers

**Given in a classroom setting:**

* The student handout
* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* ICC International Fire Code 2015 edition
* NJ UCC applicable adopted code reference sections
* IFSTA, Fire Inspection and Code Enforcement, 8th Edition
* PowerPoint presentation

**Standards:**

* NJAC 5:70-1 et seq.
* NJAC 5:23-1 et seq.
* NFPA 72-13 National Fire Alarm Code

**Prerequisite Knowledge:** Module 12

**Prerequisite Skills:** Ability to listen effectively; follows directions; take notes; and retain knowledge.

## Resources/References:

* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* ICC NJ Edition 2015 International Fire Code
* NJ UCC applicable adopted code reference sections
* IFSTA, Fire Inspection and Code Enforcement, 8th Edition
* NFPA Industrial Fire Hazards Handbook
* Student Manual

## Attention: (Call to Order)

**Motivation: (State Need to Know)**

(A reminder to instructors; it is best if the instructor uses an example from a recent or current event that is pertinent to the lesson. In this case you can refer to any incident you are familiar with that involves any of the specific operations covered by this module.)

## Student Performance Objective (SPO):

* S SPO-1 The student will have an understanding of when to apply the Chapters stated in the Tasks Section above.
* SPO-2 The student will have an understanding of the various code requirements governing the operations specified in Chapters 20 through 35 and Chapter 53student will have an understanding of fire extinguisher sizing and placement.

## Enabling Objectives (EO):

* EO 1-1-1 Working from the Power Point presentation and directly from the UFC review the types of hazards that are addressed by reviewing each chapter. This review is not intended to be a word for word reading, rather a highlighting of concepts and important requirements.
* EO 1-1-2 Working from the Power Point presentation and directly from the UFC review the types of hazards that are addressed by reviewing each chapter and point out that similar hazards in different operations can be addressed by referring to these requirements.

## Overview/Main Points:

* Fire inspectors should understand that the chapters covered by this module are intended to govern specific hazards that over time the fire protection community has identified as needing specific requirements.
* The fire inspector must have an understanding of the basis of the various code requirements found in chapters 20 through 35 and Chapter 53 and how to apply them.
* The fire inspector must know that hazards similar to those governed by chapters 20 through 37 and Chapter 53 may be found in other operations with different names. For example, the refinishing of bowling alley floors presents the same hazards as the refinishing of gymnasium floors. It would be appropriate to utilize the requirements found in the code for bowling alleys when addressing the same hazards in facilities with gymnasiums.

## Initial Instructions:

Prior to this lesson the instructor shall have reviewed the lesson plan for this module, the PowerPoint presentation with notes, reference materials, the student handouts and have read UFC NJAC 5:70-3, Chapters 20 through 35 and Chapter 53 to refresh the instructor’s knowledge on this topic.

## Opener: Call to order; start with a motivator (need to know) related to objectives and the lesson; state objectives and main points.

**Teaching points**

The purpose of this module is to ensure the student is familiar with the code language covering the maintenance requirements for the specific operations covered by chapters 20 through 37 of the IFC.

It is essential that the instructor work directly from the codebook during this module and that the students follow along in their own books. The PowerPoint presentation is only to be used as a placeholder as you work your way through the codebook.

The students must learn where items are covered within the codebook to enable them to pass the State certification exam. The only way that will occur is if the modules covering code language are taught directly from the codebook.

If a question arises that requires a graphic representation to properly present the answer, the instructor can refer to a slide from a previous module or to a pictorial example in the IFSTA textbook.

## Summary:

Summarize the material covered in this lesson by reviewing the SPOs listed and the Main Points during the Evaluation. At the end of the Summary/Evaluation remind the students of the next class date/time and the homework that must be completed to successfully participate in class and comprehend the material provided during the next lesson.

**Module 13 Specific Operations**

**Student Performance Objective (SPO):**

* SPO-1 The student will have an understanding of when to apply Chapters 11 through 25.
* SPO-2 The student will have an understanding of the various code requirements governing the operations specified in Chapters 20 through 35 and Chapter 53.

## Enabling Objectives (EO):

* EO 1-1-1 Working from the Power Point presentation and directly from the UFC review the types of hazards that are addressed by reviewing each chapter. This review is not intended to be a word for word reading, rather a highlighting of concepts and important requirements.
* EO 1-1-2 Working from the Power Point presentation and directly from the UFC review the types of hazards that are addressed by reviewing each chapter and point out that similar hazards in different operations can be addressed by referring to these requirements..

## Overview/Main Points:

* Fire inspectors should understand that the chapters covered by this module are intended to govern specific hazards that over time the fire protection community has identified as needing specific requirements.
* The fire inspector must have an understanding of the basis of the various code requirements found in chapters 20 through 35 and Chapter 53 and how to apply them.
* The fire inspector must know that hazards similar to those governed by chapters 20 through 35 and Chapter 53 may be found in other operations with different names. For example, the refinishing of bowling alley floors presents the same hazards as the refinishing of gymnasium floors. It would be appropriate to utilize the requirements found in the code for bowling alleys when addressing the same hazards in facilities with gymnasiums.

## EVALUATION

**Oral Review:** Utilizing the SPOS and Main Points, orally assess the students’ comprehension of the material provided during this lesson.

**Other Evaluation:** *(If there are assigned quizzes for this lesson, state that fact here.)*

Instructors may use course quizzes, or create and use lesson quizzes and other learning reinforcements. Quizzes are diagnostic and may be given as in-class group assignments to generate discussion or as home assignments and used as review prior to starting the next session.

**HOMEWORK**

# Readings

* I First meeting: UFC 5:70-3 Chapters 20 through 35 and Chapter 53
* Second meeting: UFC 5:70-3 Chapters 20 through 35 and Chapter 53

# Assignments

* First meeting: IFSTA Quiz #9
* Second meeting: IFSTA Quiz #10; End of Module Quiz

**APPENDIX**

# LEVEL OF INSTRUCTION

|  |  |
| --- | --- |
| **Cognitive**   1. Knowledge 2. Comprehension 3. Application 4. Analysis 5. Synthesis 6. Evaluation | **Psychomotor**   1. Perception 2. Set 3. Guided Response. 4. Mechanism 5. Complex Overt Response 6. Adaptation 7. Origination |

### DESCRIPTIONS

**Cognitive:**

1. Knowledge: remembers, recalls; the lowest learning level. Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states.
2. Comprehension: grasps meaning, interprets material, estimates future trends; the lowest level of understanding. Converts, defends, gives examples, distinguishes, estimates, explains, extends, generalizes, infers, paraphrases, predicts, rewrites, summarizes.
3. Application: uses material in new and concrete situations, applies rules, methods, concepts, principles, laws, and theories; requires higher understanding level. Changes, computes, demonstrate, solve, discover, manipulate, modify, operate, predict, prepare, uses, produces, relates.
4. Analysis: breaks material into components to understand structural organizational; higher intellectual level than comprehension and application requiring understanding of both structure and content. Breaks down, diagrams, differentiates, infers, discriminates, relates, distinguishes, identifies, illustrates, outlines, points out, selects, separates, subdivides.
5. Synthesis: able to put parts together to form a new whole, stresses creative behaviors, emphasizes forming new patterns or structures. Categorizes, combines, complies, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, relates, revises, reconstructs, reorganizes, writes/rewrites, summarizes, tells.
6. Evaluation: able to judge value of material for a given purpose based on definite criteria. Highest in cognitive hierarchy as this contains elements of all other categories plus conscious value judgments based on clearly defined criteria. Appraises, compares, concludes, relates, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, summarizes, supports.

**Psychomotor:**

1. Perception: uses organs or sense to obtain cues to guide motor activity. Chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects, separates
2. Set: readiness to take a particular type of action; includes mental, physical or emotional set. Begins, displays, explains, moves, shows, proceeds, reacts, responds, starts, volunteers.
3. Guided Response: early stages in learning a complex skill; includes imitation, trial and error. Assembles, builds, calibrates, displays, constructs, dismantles, dissects, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches, works.
4. Mechanism: performs acts where learned responses have become habitual and moves with confidence and proficiency; same as guided response.
5. Complex Overt Response: skillful motor performance of complex movement. Performs proficiently, quickly, smoothly, accurately with minimum energy, without hesitation. Same as guided response.
6. Adaptation: skills are so well developed that movement patterns can be modified to fit special requirements or meet problem situations. Adapts, alters, changes, rearranges, reorganizes, revises, varies.
7. Origination: creates new movement patterns to fit a unique situation or problem. Emphasizes creativity based on highly developed skills. Arranges, combines, composes, constructs, designs, originates