Fire Investigation Independent Study Continuing Education
NFPA 921 UNIT #8 – Study Guide
NFPA 921 Guide for Fire and Explosion Investigations 2004 Edition

Objective: **Given an examination the participant shall demonstrate a knowledge and understanding of fire-related human behavior and safety as they relate to the investigation of fires.**

Reading/study assignment: NFPA 921 Guide for Fire and Explosion Investigations, 2004 Edition, pp. 921-87 through 921-91 (Chapter 10) and pp. 921-98 through 921-101 (Chapter 12).

Study/reference questions:

Chapter 10 – Fire-Related Human Behavior

When did fire-related human behavior research begin and where may a summary of some of this research be found?

What are some of the fire-related human behavior factors involving recognition and response to fires? Consider sensory cues, response, action taken, escape factors, and survivor information.

How may height of a structure affect fire-related human behavior?

How may the presence of flames affect fire-related human behavior?

How are factors of individual's or group's human behavior during and following a fire broadly classified and evaluated?

How may physical limitations affect an individual's fire-related human behavior?

How is housekeeping associated with fire-related human behavior and what are some examples?

How may groups affect an individual's fire-related human behavior?

What is an individual's fire-related human behavior affected by?

What influences the roles and norms of a group?

How may group structure affect fire-related human behavior and what are some examples of group structure?

In what way may a fire be related to the people associated with the incident scene?

How does interaction between individual members of a group affect fire-related human behavior?

How may the organization or cohesiveness of a group affect fire-related human behavior?

What are the key elements of a proper warning? Give examples.

What does group permanence refer to, how does it affect fire-related human behavior, and what are some examples?

How may familiarity with physical setting affect fire-related human behavior and what may limit familiarity thus changing the behavior?

What are characteristics of the physical setting and do they affect fire-related human behavior?

How may location of exits affect fire-related human behavior?

How may fire alarm systems affect fire-related human behavior?

How may false alarms affect fire-related human behavior?

How may fire suppression systems affect fire-related human behavior?

How may a group's perception and the characteristics of the fire affect fire-related human behavior?

Do the presence of flames always have the desired fire-related human behavior? Explain.

How does the lack of knowledge concerning fire dynamics and fire behavior relate to fire-related human behavior with the presence of smoke?

Below what oxygen concentration level is an individual's behavior affected?

How may fire-related human behavior be associated with fire initiation?

How and why does group size affect fire-related human behavior?

How can factors involved in accidental fires be associated with fire-related human behavior?

How is improper maintenance and operations associated with fire-related human behavior and what should the fire investigator in the course of the investigation involving this type of fire?

What are some examples of those that may be involved in standards on labels, instructions, and warnings in reference to products?

How are product labels, instructions, and warnings associated with fire-related human and what is the purpose of labels, instructions, and warnings?

What does research indicate concerning gender and the reporting of a fire?

What do the words caution, warning, and danger indicate in reference to product labeling?

How may number of exits affect fire-related human behavior?

What are cognitive comprehension limitations, how do they affect fire-related human behavior and what is an example of this?

How may recalls and violations of fire safety codes and standards be associated with fire-related human behavior and what are some considerations similar to these actions?

What are some of the fire-related human behavior actions and reasons associated with children and fire and what are the three recognized age groups and characteristics of these age groups?

How is fire-related human behavior associated with incendiary fires?

What are some human factors associated with fire-related human behavior and what should the fire investigator do in reference to this area?

How do the effects of toxic gases and oxygen depletion affect fire-related human behavior?

Chapter 12 – Safety

What considerations should be given in regards to fire investigator rest, fluid replacement, sanitation facilities, eating, etc.? Why?

What is the minimum number of fire investigators that should be present at a fire scene examination? If this is not possible, what should the fire investigator do?

What factors should the fire investigator be constantly alert of concerning scene safety?

What is a MSDS and how may this be used by the fire investigator?

What should be worn in a hazardous environment?

What consideration should be given to clothing worn in a hazardous environment?

What are some of the various types of respiratory protection that may be considered? What are some of the circumstances in which the various protection may be used?

What should the fire investigator do if terrorism is suspected in connection with the fire scene?

What should the fire investigator consider in reference to standing water?

What should the fire investigator do concerning biological and radiological terrorism?

What are some of the things the fire investigator should be aware of concerning electrical hazards?

What may be used for eye protection?

What are residue chemicals and what should the fire investigator do concerning these?

What are some of the things the fire investigator should consider in reference to fire scene hazards?

What should the fire investigator be aware of concerning their personal health and safety?

What are secondary devices and what should the fire investigator do concerning these?

Why should fire investigators exercise caution during the fire investigation? Why is the fire scene different from any other work place?

What are some of proper safety equipment items the fire investigator should be wearing while investigating the fire scene?

What should the investigator determine concerning utilities? Why?

How may investigator fatigue influence safety and what should be done concerning this?

What are some of the various types of gloves that may be worn at a fire scene investigation? Why?

What *other equipment* may be necessary for safety of the investigator?

How may the status of suppression affect scene safety and what should the investigator do concerning this?

Safety considerations for the fire investigator extends beyond the fire scene to what other activities?

How may structural stability affect scene safety and what should the investigator do concerning this?

What are some specific items the fire investigator should consider concerning electrical hazards while examining the fire scene?

What consideration should be given in reference to safety of bystanders?

What are some of the concerns for the fire investigator concerning acts of terrorism?

What type of wearing apparel is a good choice when there is a potential for falling objects or cuts or scrapes from sharp objects?

What may happen to proper hazard identification labeling at a fire scene?

What should the fire investigator do concerning exposure to tools and equipment?

Where may the fire investigator find other valuable safety information?