

UNIT 4: SAFETY RESPONSIBILITIES



OBJECTIVES

The students will:

- Describe how the roles of the Incident Commander (IC), Health and Safety Officer (HSO), and Incident Safety Officer (ISO) interrelate.
- Become familiar with the National Fire Protection Association (NFPA) 1500[®], *Standard on Fire Department Occupational Safety and Health Program* and NFPA 1521[®], *Standard for Fire Department Safety Officer* as they relate to the functions of the ISO.
- Using scenarios, write a Hazard Risk Analysis (using Incident Command System (ICS) Form 215A, *Incident Action Plan Safety Analysis*).

INTRODUCTION

- **The ISO brings appropriate attention to all safety aspects of operations.**
- **The ISO reports to the IC.**
- **Responsibilities are laid out in the ICS and covered by NFPA.**
- **Risk Management Plans by responder organizations lay the groundwork for proper management of an incident.**

INCIDENT COMMANDER

- The IC is the ultimate Safety Officer for any incident or event.
- The ISO transmits information directly to the IC.



INCIDENT ACTION PLAN

- The Incident Action Plan (IAP) defines objectives, strategies, tactical objectives, risk management, safety, and supporting requirements for an incident or event.
- The IAP is changed as often as circumstances change.
- The ISO **must** contribute to the IAP.

Safety Officer

- **An arm of Command**
- **Orders carry the weight of the IC**
- **HAS THE AUTHORITY TO ALTER, SUSPEND, OR TERMINATE AN ACTIVITY**
 - **Inform and coordinate these actions with the IC**
- **Consider at large incidents a Safety Division and/or Assistant Safety Officers**

S.O. Duties

- **Responsible for the management of the health and safety process on the emergency scene**
- **Full gear / SCBA**
- **360 Hot Lap**
- **Report to IC**
- **Go to Where Problems Are**
- **Should be “all over the fireground”**
 - Not doing Job by Hanging out at the CP in no PPE**

S.O. Duties

- Observe fireground ops
- **Monitor Radio Transmissions**
- Ensure safety regs and procedures are followed
- Recommend corrective action
- **Not a Safety Cop**
 - **Disciplined Ops allow S.O. to see the Big Picture**

[video](#)

S.O. Duties

- **Establish perimeters / collapse zones when directed**
- **Review safety issues in post-incident evaluations**
- **Ensure injuries and exposures are documented**
- **Ensure EMS is available at emergency scenes**
- **Support Documentation Protocol**

INCIDENT SAFETY OFFICER RESPONSIBILITIES

- **Ongoing assessment of hazardous environments (ICS Form 215A)**
- **Coordination of multiagency safety efforts**
- **Implementation of measures to promote emergency responder safety**
- **General safety of incident operations**

Fire Coordination Triangle

Failure to Coordinate Fireground Operations

Attack

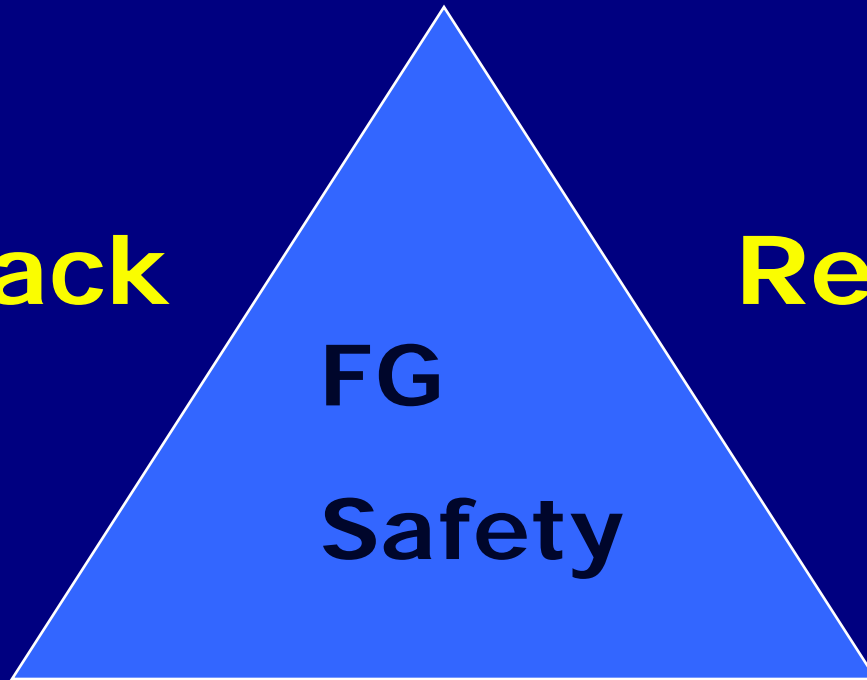
Rescue

FG

Safety

Ventilation

video



How Important is Ventilation?

From 1990-2005,
NIOSH reviewed 444 LODD's in structure
fires

87% of these LODD's occurred at fires
where

“No recognized or coordinated
ventilation had taken place”

THE UL / NIST STUDY

- Strict control over Attack / Ventilation Coordination
- Based on new fire loads and how they behave in modern buildings
- Legacy contents: 8.5 minutes to flashover AFTER ventilation
- Modern Contents: 2 minutes to flashover AFTER ventilation

THE UL / NIST STUDY

- Starve the fire until attack is ready – water in line at fire area
- Control the flow paths
- ANY building openings without water application spikes temperatures
- Air introduced by openings (doors and windows) feeds fire. No H₂O = bigger fire
- EVERYONE MUST REVIEW THIS STUDY

KEY INCIDENT SAFETY OFFICER FUNCTIONS PER NATIONAL FIRE PROTECTION ASSOCIATION 1521[®]

- The authority to alter, suspend, or terminate unsafe acts or hazardous activities
- Must make commander aware of needs
- Monitors the scene and reports conditions and assessment to the IC
- Must be aware of traffic, hot zones, collapse zones, access, and egress

[video](#)

HAZARD RISK ANALYSIS

Effective risk management requires a plan for monitoring hazard conditions, establishing tactics, and measuring progress.



HEALTH AND SAFETY OFFICERS IN FIRE DEPARTMENTS

- HSOs produce the safety groundwork used by fire departments at events and incidents: safety standards, Standard Operating Procedures (SOPs), training, health, and fitness.
- Position created to help establish and maintain organization's compliance with NFPA 1500[®].

KEY HEALTH AND SAFETY OFFICER'S FUNCTIONS

- **Development, implementation, and management of Risk Management Plan.**
- **Development, implementation, and management of the Occupational Safety and Health Program.**
- **May become designated as an ISO.**

HEALTH AND SAFETY OFFICER/ INCIDENT SAFETY OFFICER RELATIONSHIP

- ISO duties are primarily on scene.
- An HSO's work generally is pre-emergency.
- Both focus on responder safety.
- Allies at scene and on investigations.



SUMMARY

- **An effective safety and health program for both emergency and nonemergency activities begins with the fire chief and the leaders of other agencies.**
- **Responders are the key ingredient. They should be committed to safety, applying standards, and following control measures.**
- **ISOs have a number of allies, like HSOs, to draw upon to do their jobs well.**
- **ISOs use risk assessments, draw on Risk Management Plans, and apply their knowledge about safety cues for different incident types.**

Activity 4.1

Hazard Risk Analysis