

UNIT 6: OPERATIONAL RISK MANAGEMENT



OBJECTIVES

The students will:

- **Identify role of the Incident Safety Officer (ISO) in emergency risk management.**
- **Given photographs of an emergency incident and working in small groups, identify immediate risks to responders and forecast potential risks to responders.**
- **Discuss the difference between pre-emergency and operational risk management.**
- **Given video segments, identify immediate hazards.**
- **Given video segments, determine the need for and the methods to terminate unsafe operations.**

INTRODUCTION

- Operational risk management involves the oversight of many forms of day-to-day operational risk.
- At an incident scene, it is **show time** for risk management too.
- Officers and firefighters alike need to learn safety **best practices**.

EMERGENCY RISK MANAGEMENT

- **ISO must continually monitor the scene and operations.**
- **The ISO should ensure that preplanned measures are in use--e.g., is the personal protective equipment (PPE) in use.**
- **Everyone has safety responsibility:**
 - **Perform in safe manner.**
 - **Watch out for other responders.**
 - **Cooperate with safety procedures.**

VIDEO

PPE Policy Enforcement

T
H
E

B
A
S
I
C
S

- Waist Straps
- Wear your Hood
- Chin Strap belongs Under Your Chin
- Wear the proper gloves!!



**If you are not doing this right
what else are you doing wrong?**

Culture of Safety

- Safety must be an organizational value
- The 95% TO 5% RULE
- You **can't** put a value on safety
- You **can** put a price on the consequences

DON'T SUCK AT BEING SAFE

COMPLACENCY

- You must be aware of and identify complacency
- Nothing showing
- Has no place on the fireground

[video](#)

[video](#)

[video](#)

Monitoring the scene

- **Cues to consider strategy modification**
 - **Discovery / presence of lightweight construction – check involvement!!**
 - **Failure to locate seat of fire in timely manner**
 - **Evidence of smoke conditions worsening even though water is being applied**
 - **Forcible entry difficulty**
 - **Ventilation difficulty**
 - **Water supply problems**

Monitoring the Scene

- Cues to consider strategy modification
 - Indicators of flashover / structural compromise
 - Operations that “eat up” personnel (tough rescue)
 - Fires in attached buildings w/ any of above concerns
 - Fireground experience or gut feelings
 - More critical during offensive ops because personnel are inside building

KNOWLEDGE OF RISKS

- ISO should be well versed in procedures and dangers that are present at scenes.
- Anyone, at anytime, may be appointed to act as a Safety Officer.
- Pay attention at Operations and at training and education opportunities to build your knowledge.

[video](#)

[video](#)

Nothing Showing

- **Critical Evaluation Point**
 - **If you allow a breakdown in discipline when there is nothing showing, forget about operational discipline when it is hitting the fan**

Nothing Showing

- Little things done right in investigation mode pay BIG dividends when something is showing
 - Response / Apparatus positioning
 - SOP adherence
 - PPE
 - Communications
 - All sides coverage and report

Activity 6.1

Immediate Risks to Responders

FORECASTING

- **The ISO should contribute to and know the Incident Action Plan's (IAP's) objectives, strategies, and tactics.**
- **The ISO is to look for immediate dangers and also try to forecast into the future of the incident or event management.**
- **Incident Command Staff and General Staff depend on and work with the Safety Officer.**

WEATHER--TOOLS

- **Weather affects fire, hazardous materials (hazmat), and other incidents:**
 - **National Weather Service (NWS)**
 - **Local meteorologists**
 - **Local radar**
 - **Satellite images**
 - **Observations and a Geographic Information System (GIS)**
- **Temperature extremes affect operations**



STRUCTURAL FIRES-- TOOLS AND CUES

- **Features of the building**
- **Fire protection systems**
- **Access for fire crews**
- **Egress for crews**
- **Construction type**
- **Age of building**
- **Potential for extension**

STRUCTURAL FIRES-- TOOLS AND CUES (cont'd)

- **Amount of fire involvement**
- **Roof hazards**
- **Time**
- **Weather**
- **Number of Personnel**

Additional Alarm Rule of Thumb

- If the incident is still escalating and you do not have at least 3 companies in reserve, order an additional alarm
 - Relief / Reinforcement
 - Unplanned for problems
 - Hydraulic Reserve
 - Reflex Time Ripple Effect

**ALL INCIDENTS REQUIRE A
TACTICAL RESERVE**

Resources

**Better to be looking at
them than looking for
them**

Structural Fire Risk Analysis

- **Building Characteristics**
 - **Construction Type & Size**
 - **Structural Condition**
 - **Occupancy & Contents**

You Need to Know this Stuff to be Effective

Otherwise, you are guessing

Structural Fire Risk Analysis

Fire Factors

- Location and Extent of Fire
- Estimated Time of Involvement
- What's up with the Smoke?
- How Far can Fire Spread?
- What Hazards are present?
- Weather Issues

[video](#)

Tactical Breakdown

- Failure to Establish and Maintain/Respect a Collapse Zone

--A building beat up by fire has changed

[Video](#)



[VIDEO](#)

MEDICAL EMERGENCY-- TOOLS AND CUES

- **Potential for violent acts makes escape routes important and law enforcement an ally**
- **Protection from surroundings including from the weather**
- **Sufficient staffing for triage and/or to carry and load**
- **Communicable diseases**

FORECASTING EMERGENCY MEDICAL SUPPORT



- ISO should forecast the need for emergency medical services (EMS) support.
- Often required by the National Fire Protection Association (NFPA) 1500[®].
- EMS crews should be alert for responders in need of help.

Activity 6.2

Risk Forecasting

PERSONNEL ACCOUNTABILITY SYSTEM FOR RESPONDERS

- Responder organizations should have the components that make the system effective.
- Incident Commanders (ICs) should establish resource management approaches (check-in, staging, assignments, supervision, and reporting).
- Fire departments should have Standard Operating Procedures (SOPs) appropriate to the different type incidents.
- ISOs are to review the Medical Plans.

Command Board

- **Maintained in state of readiness at all times – NOT A MESS**
- **Reflects at all times the status of on-scene resources**
 - **Operating**
 - **Rehab**
 - **Staged (Available)**

TAGS

- **What do you do with them?**
- **What is their main function?**
- **Are you letting them do the job of your Company and Chief Officers?**

Accountability

- **Division Supervisors set up early are the REAL Accountability Officers**
- **Account for:**
 - **Who is in Division (Div. PAR)**
 - **Where they should be**
 - **What they are doing**
 - **When they should come out**

DECENTRALIZATION

Accountability and the Command Board

- **Company Officer roles:**
 - **Ensure company integrity**
 - **Keep Command informed of status**
 - **All changes of status or area of operation shall go through the CP and be reflected on the Command Board**
 - **Status change is best done verbally at the CP**

TAKING RISKS

- **Acceptable risks.**
 - Inherent to the job.
 - Planned and controlled.
- **Unacceptable risks.**
 - Not all risk decisions are simple.
 - A risk is not worth a responder's life.
- **Safety Officers **will** advise Incident Command and Operation Units.**

TERMINATING UNSAFE OPERATIONS

- Per NFPA 1521[®], NFPA 1561[®] standards and Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations.
- The ISO has the authority to alter, suspend, or terminate operations that present imminent safety hazard.
- Safety Officer under the Incident Command System (ICS) can do this too.

SUMMARY

- **The ISO is the onscene risk manager.**
- **The ISO uses the risk management process, techniques, training, experience, safety cues, SOPs, and intuition to perform his/her job.**
- **The ISO must look for immediate risks and forecast risks in the future.**

Activity 6.3

Terminating Unsafe Operations

VIDEO:

"Scenarios"

