

# Hazmat Tabletop Exercises



**NIEHS**  
**National Trainers' Exchange**

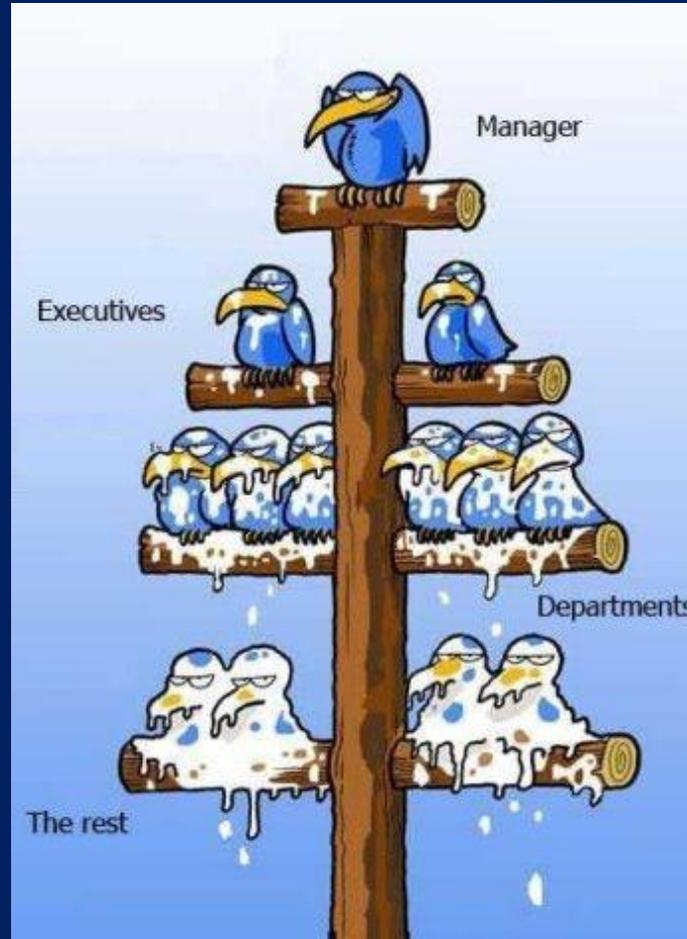
Lead Presenter - Gary Yurt  
Co-Presenter - Mike Stone & Jeff Garris

March 27-29, 2012, Fort Lauderdale, FLA

**If it can Happen!! It Will!!  
Always expect the unexpected!  
Hope for the Best - Prepare for the  
Worst!**



# Is this the way you Manage an emergency incident



# How many Hats can you wear

Image removed because of copyright

# ICS PURPOSES

- **Using management best practices, ICS helps to ensure:**
  - **The SAFETY of responders and others.**
  - **The achievement of tactical objectives.**
  - **The efficient use of resources.**

# ICS FEATURES

- Common terminology
- Modular organization
  - Management by objectives
- Incident Action Plan (IAP)
- Chain of command and unity of command
- Unified command
- Manageable span of control
- Pre-designated incident facilities
- Resource management
- Information management
- Integrated communications
- Transfer of command
- Accountability
- Deployment
- Demobilization



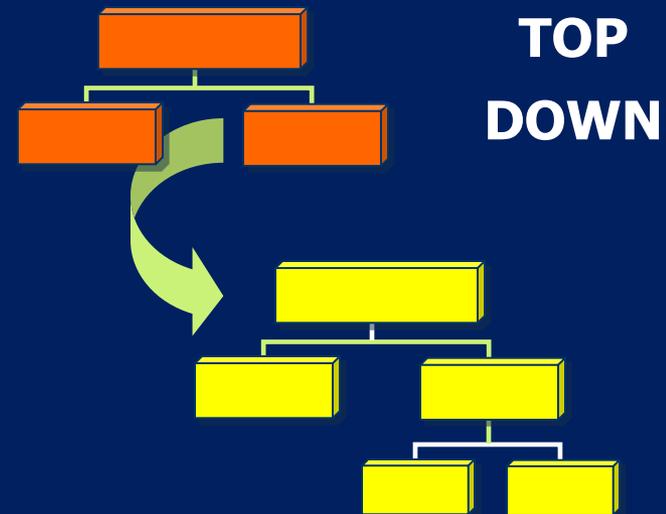
# COMMON TERMINOLOGY

- Using common terminology helps to define:
  - Organizational functions.
  - Incident facilities.
  - Resource descriptions.
  - Position titles.



# MODULAR ORGANIZATION

- Develops in a top-down, modular fashion.
- Is based on the size and complexity of the incident.
- Incident objectives determine the organizational size.
- Only functions/positions that are necessary will be filled.
- Each element must have a person in charge.



# MANAGEMENT BY OBJECTIVES

- ICS is managed by objectives.
- Objectives are communicated throughout the entire ICS organization through the incident planning process.



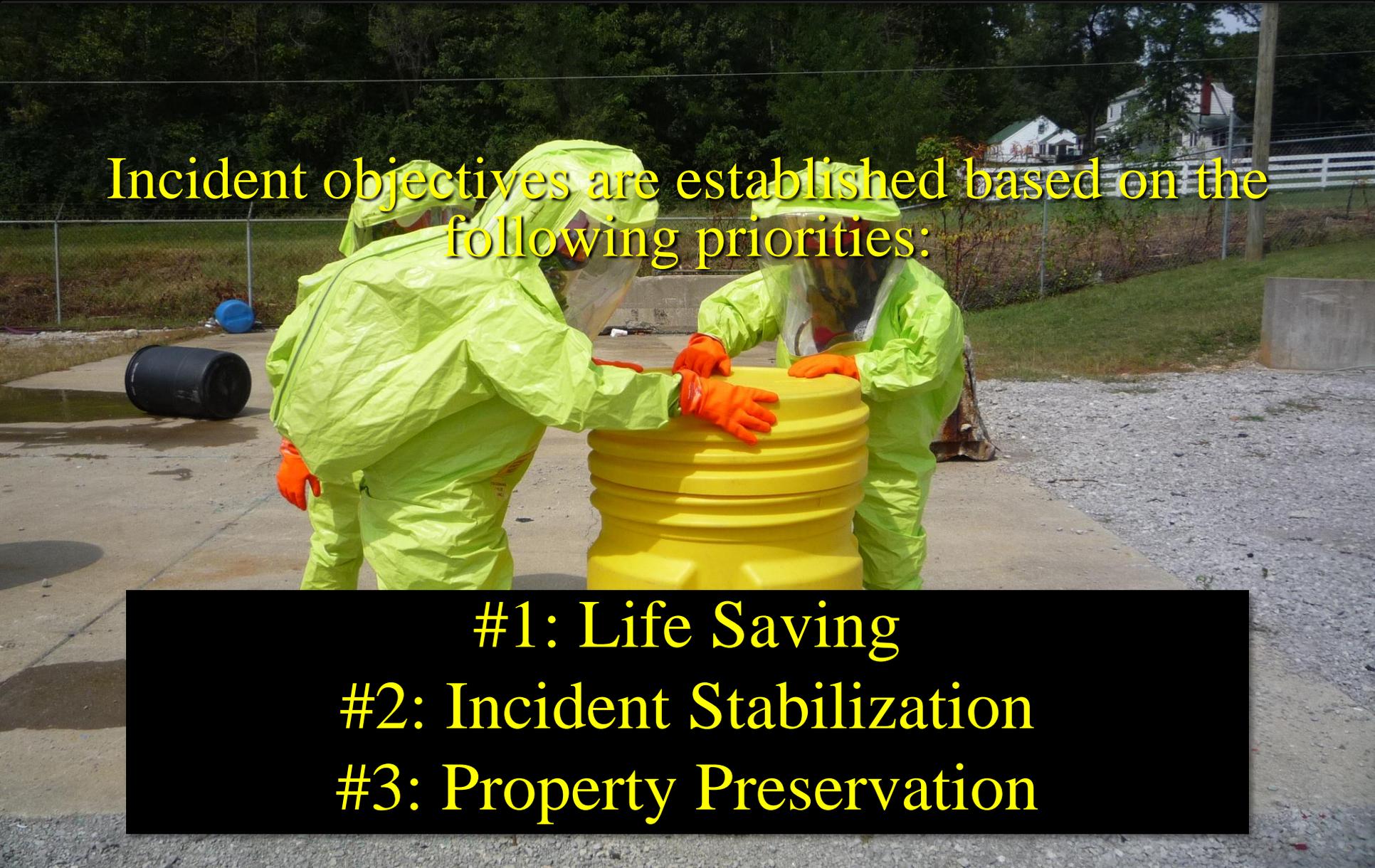
# OVERALL PRIORITIES

Incident objectives are established based on the following priorities:

**#1: Life Saving**

**#2: Incident Stabilization**

**#3: Property Preservation**



# ICS ORGANIZATION



# INCIDENT COMMAND SYSTEM

- ▣ NIMS is the over-arching federal program; ICS is the detailed management model
- ▣ ICS was first developed in the 1970's following a series of fires in California
- ▣ Studies found that response problems in fires were far more likely to result from inadequate management rather than any other reason

# HOMELAND SECURITY PRESIDENTIAL DIRECTIVE HSPD-5 (2/28/03)

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- To enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive **National Incident Management System (NIMS)**.
- To prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies

# Types of Command

## ▣ Single Command

- Internal Plant Emergencies

## ▣ Unified Command/Shared Command

- Plant Personnel and public safety agencies share incident response responsibilities

# Federal Emergency Planning Regulations

The following is a list of some of the federal emergency planning regulations:

1. EPA's Oil Pollution Prevention Regulation (SPCC and Facility Response Plan Requirements)
2. 40 CFR part 112.7(d) and 112.20-.21;
3. MM's Facility Response Plan Regulation - 30 CFR part 254;
4. RSPA's Pipeline Response Plan Regulation - 49 CFR part 194;
5. USCG's Facility Response Plan Regulation - 33 CFR part 154, Subpart F;
6. EPA's Risk Management Programs Regulation - 40 CFR part 68;
7. OSHA's Emergency Action Plan Regulation - 29 CFR 1910.38(a);
8. OSHA's Process Safety Standard - 29 CFR 1910.119;
9. OSHA's HAZWOPER Regulation - 29 CFR 1910.120;
10. OSHA's Fire Brigade Regulation - 29 CFR 1910.156;
11. EPA's Resource Conservation and Recovery Act Contingency Planning Requirements - 40 CFR ;
12. EPA's Emergency Planning and Community Right-to-Know Act Requirements - 40 CFR part
13. EPA's Storm water Regulations - 40 CFR 122.26.

# TRAINING REQUIREMENTS: EMERGENCY RESPONDERS

Level 1: First Responder  
Awareness Level

Sufficient training or proven experience  
in specific competencies. Annual Refresher

Level 2: First Responder  
Operations Level

Level 1 Competency  
+ 8 hrs training or proven skills in specific  
competencies. Annual Refresher

Level 3: HAZMAT  
Technician

24 Hrs of Level 2  
+ proven skills in specific competencies  
Annual Refresher

Level 4: HAZMAT  
Specialist

24 Hrs of Level 3  
+ proven skills in additional competencies  
Annual Refresher

Level 5: On Scene  
Incident Commander

24 Hrs of Level 2  
+ proven skills in additional competencies  
Annual Refresher

# NFPA Hazmat Levels

- ▣ Many communities across the country have established incident levels for hazardous releases and spills.
- ▣ This allows for quick notification.
- ▣ It provides for a system of community awareness.
- ▣ Usually a tiered Level I, II, and III system

# Level 1

## Small-scale incident

- ▣ Handled by the first responders
- ▣ Notifications usually local
- ▣ Minimum level of PPE
- ▣ Minimal environmental impact
- ▣ For example, natural gas, propane leaks, and small fuel spills

# Level 2

## Level usually requires HAZMAT Team

- ▣ Level requires local or state notifications.
- ▣ Amount of material may be larger, or is more hazardous.
- ▣ Chemical protective clothing is required.
- ▣ May require a small evacuation or isolation area(s).
- ▣ Examples are overturned gasoline tankers, a leaking propane tanker, or leaking totes in the back of a tractor trailer.

# Level 3

## Level requires substantial local resources

- ▣ Level requires assistance of other agencies.
- ▣ May require evacuation of effected area and a substantial isolation area.
- ▣ Release is large or the material is extremely toxic. *PSM 1910.119 EHS chemical*
- ▣ Examples include a train derailment or a substantial leak from an ammonia tank.

- \*Incident Tracking
- \*Accountability/Head Count
- \*Release/Product Information

The form is titled "Incident Command Board" and is divided into several functional areas:

- Organizational Structure (Top Left):** A hierarchy chart showing roles such as Incident Commander, Operations, Logistics, Planning, Finance, and Public Information. It includes sub-roles like "Section Chief" and "Team Leader".
- Tracking Grid (Center):** A large grid for tracking personnel. It has columns for "Personnel", "Status", and "Location". A watermark in the center reads "Sample Only Do Not Reproduce".
- Resource Management (Bottom Left):** A section for tracking resources, including a table with columns for "Resource", "Status", and "Location".
- Incident Details (Top Right):** A section for recording incident information, including "Incident Number", "Date/Time", and "Location".
- Reporting and Status (Bottom Right):** A section for recording incident details, including "Incident Type", "Cause", and "Status". It includes a table for "Incident Details" and a "Status" section.

The form is designed for use in an incident response scenario, providing a structured way to track personnel, resources, and incident details.

## ICS Forms

The ICS uses a series of standard forms and supporting documents that convey directions for the accomplishment of the objectives and distributing information. Listed below are the standard ICS form titles and descriptions of each form:

Standard Form Title	Description
Incident Action Plan Cover Page ICS 200	Indicates the incident name, plan operational period, date prepared, approvals, and attachments (resources, organization, Communications Plan, Medical Plan, and other appropriate information).
Incident Briefing ICS 201	Provides the Incident Command/Unified Command and General Staffs with basic information regarding the incident situation and the resources allocated to the incident. This form also serves as a permanent record of the initial response to the incident.
Incident Objectives ICS 202	Describes the basic strategy and objectives for use during each operational period.
Organization Assignment List ICS 203	Provides information on the response organization and personnel staffing.
Field Assignment ICS 204	Used to inform personnel of assignments. After Incident Command/Unified Command approve the objectives, staff members receive the assignment information contained in this form.
Incident Communications Plan ICS 205	Provides, in one location, information on the assignments for all communications equipment for each operational period. The plan is a summary of information. Information from the Incident Communications Plan on frequency assignments can be placed on the appropriate Assignment form (ICS Form 204).
Medical Plan ICS 206	Provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.
Incident Status Summary ICS 209	Summarizes incident information for staff members and external parties, and provides information to the Public Information Officer for preparation of media releases.
Check-In/Out List ICS 211	Used to check in personnel and equipment arriving at or departing from the incident. Check-in/out consists of reporting specific information that is recorded on the form.
General Message ICS 213	Used by: <ul style="list-style-type: none"><li>Incident dispatchers to record incoming messages that cannot be orally transmitted to the intended recipients.</li><li>EOC and other incident personnel to transmit messages via radio or telephone to the addressee.</li><li>Incident personnel to send any message or notification that requires hard-copy delivery to other incident personnel.</li></ul>

# National Incident Management System Forms

**REFERENCE BOOKS**

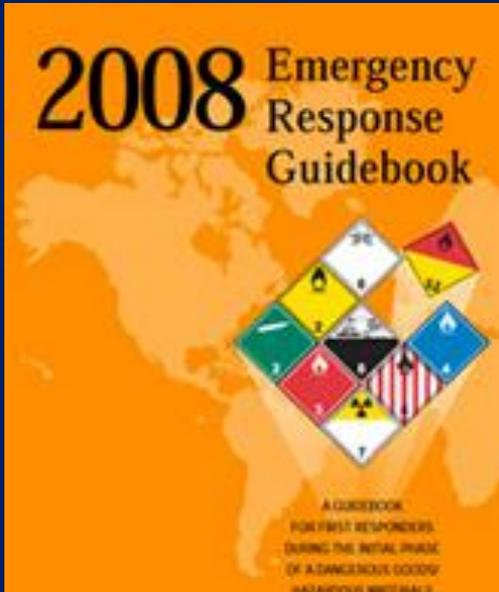
**MSD**

**COMPANY PROCEDURES**

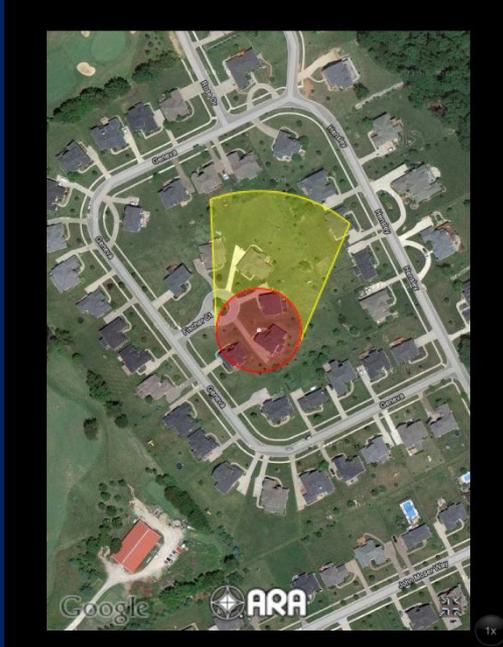
**ICP**

# Computer Technology

- ▣ WISER
- ▣ CAMEO
- ▣ EPA Chemical Fact Sheets
- ▣ Internet
- ▣ Smart Phone APPS
- ▣ OSHA, EPA, DOT websites
- ▣ Association Websites - Responsible Care, API, ACC, TRANSCAER®, CHEMTREC®



12:48 PM 100%



1x

Chlorine Equipment (PPE)

**Chlorine**  
CAS RN: 7782-50-5  
**Equipment (PPE)**

Handlers must wear long-sleeved shirts, long pants, shoes, and socks. ... In case of a spill or leak, handlers must wear chemical-resistant gloves (such as nitrile or butyl) and a full-face canisterstyle (gas mask) respirator with a canister approved for chlorine (MSHA/NIOSH approval number prefix TC-14G) OR a self-contained breathing apparatus (SCBA) (MSHA/NIOSH approval number prefix TC-13F). Since there is always the possibility of a spill or leak, gloves and a respirator of a type specified above must be available and are required for anyone entering into an affected area in the event of a leak or spill.

Saranex, Butyl Rubber/Neoprene, Viton, Neoprene, Butyl Rubber, and Viton/Neoprene are among the recommended protective materials.

Employees should be provided with & required to

1x

CDC Workplace Safety and Health

**NIOSH**  
POCKET GUIDE TO  
**CHEMICAL HAZARDS**

DEPARTMENT OF HEALTH AND HUMAN SERVICES

12:43 PM 100%

Hazmat Segregation ⓘ

Explosives - 1.1		
Explosives - 1.1		

Segregation among different Class 1 (explosive) materials is governed by the compatibility table in §177.848 paragraph (f).

Explosives Table >>

1x

**NIMS**  
Incident Command System  
Field Guide™

©2006, Second Edition - Informa™

- NIMS Overview & Major Components
- National Response Framework Relationship
- Incident Command System Concepts
- Multi-agency Coordination System
- Public Information Principles
- ICS Position Responsibilities & Checklists
- ICS Organizational Charts
- Operational Planning Process and Cycle
- List of IAP / ICS Forms & Templates

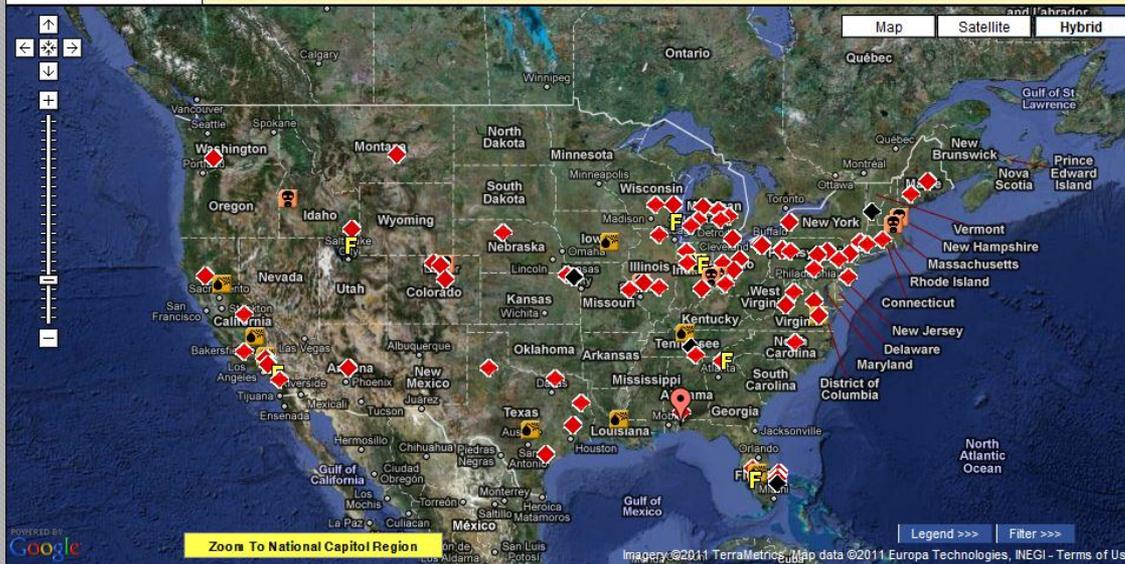
Jeff Jones, Division Chief

Intro IC/UC Ops Plans LOGS Fin/Action Intel



# North American Hazmat Situations and Deployments Map

A free public service from GlobalIncidentMap.com



Live Support OFFLINE

- GlobalIncidentMap.com
- Amber-Alert Map
- HAZMAT Situations Map**
- Forest Fires Map
- Disease Outbreaks Map
- Gang Activity Map
- Border Security Issues
- Presidential Threat Map
- Terrorism Event Predictions
- New - Quakes Map
- Drug Interdictions Map
- Non-Terror Aviation Incidents
- NEW - Food/Medicine Incidents
- NEW - Human Trafficking

To display just the map please click **HERE**

Announcements, Alerts, Breaking news ...

Map Of Hazmat Incidents In North America. Did We Miss An Incident? Please Let Us Know - Email Speed UP

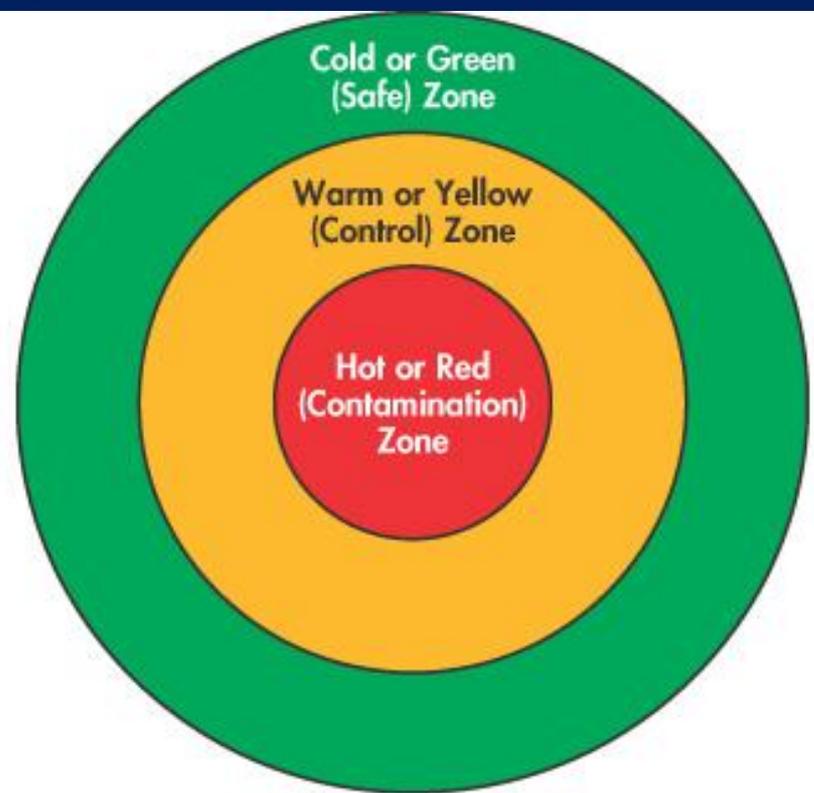
30 newest events:

Best matches for Hazmat Evacuation so

2011-07-26 13:17:00 Lansing, MI (US): MICH  
 Hazmat - Evacuation Ordered By LPD Reg  
 Chlorine Leak on South Side... Jump to text



# Hazmat Release Zones



## Hot or Red (Contamination) Zone

- Contamination is actually present.
- Personnel must wear appropriate protective gear.
- Number of rescuers limited to those absolutely necessary.
- Bystanders never allowed.

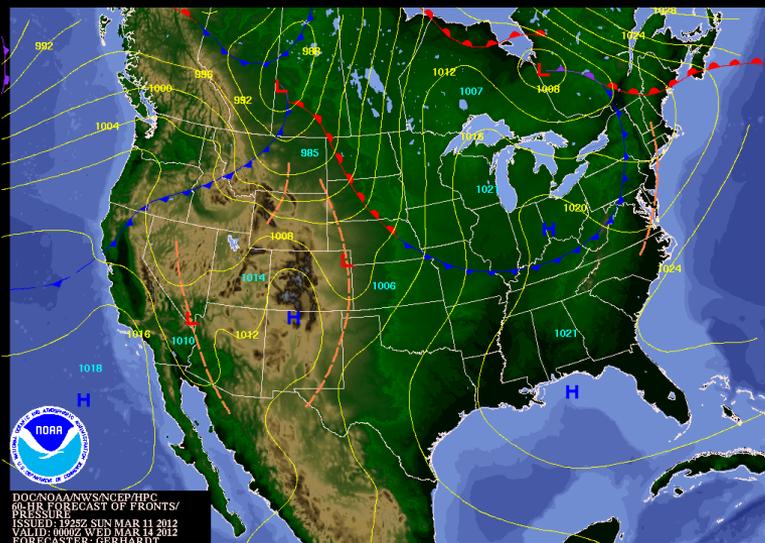
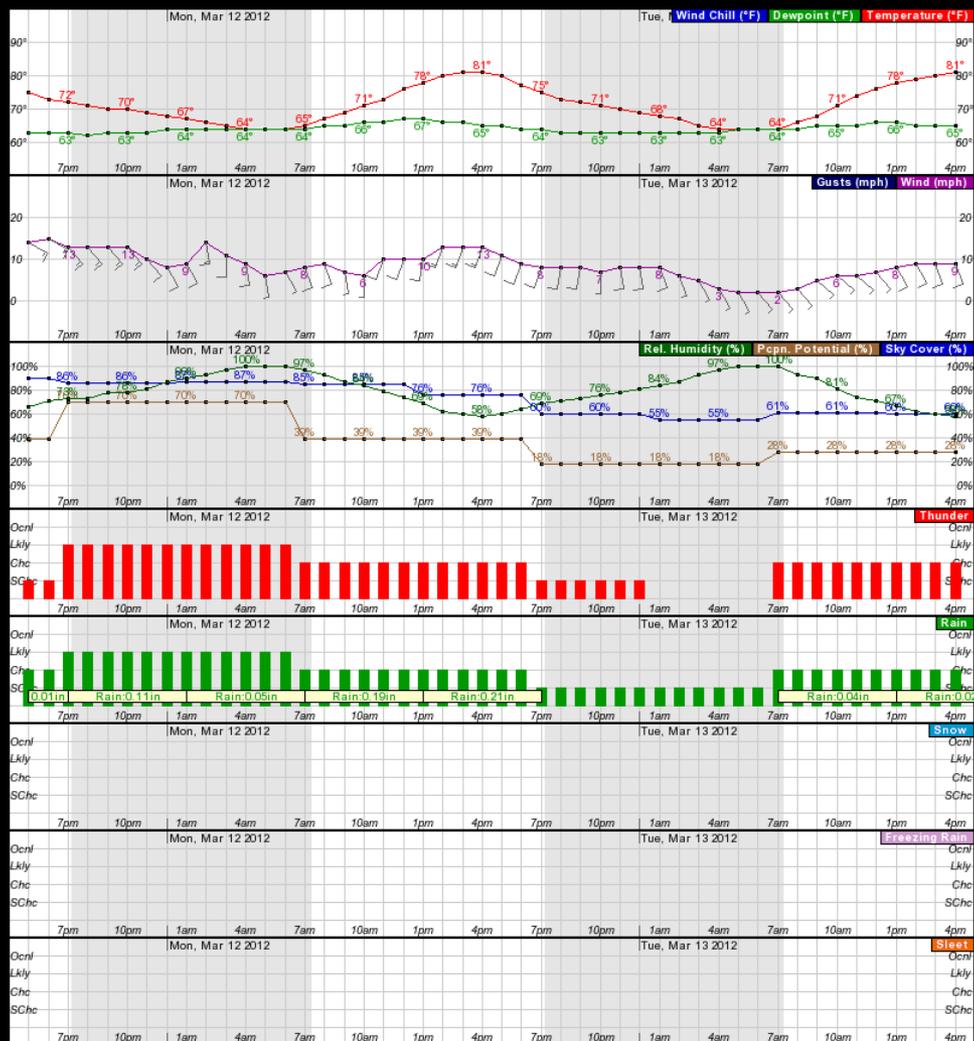
## Warm or Yellow (Control) Zone

- Area surrounding the contamination zone.
- Vital to preventing spread of contamination.
- Personnel must wear appropriate protective gear.
- Life-saving emergency care and decontamination are performed.

## Cold or Green (Safe) Zone

- Normal triage, stabilization, and treatment are performed.
- Rescuers must shed contaminated gear before entering the cold zone.

# Weather



DISCUSS: NWS/CEP/HRG  
 9HRS. FORECAST OF FRONTS/  
 PRESSURE  
 ISSUED: 1252Z SUN MAR 11 2012  
 VALID: 0000Z WED MAR 14 2012  
 FORECASTER: GERHARDT

# Command Post

- ▣ Establish an Incident Command Post (ICP)
  - Designate the location and make it known to all incident resources
  - Account for expansion if situation requires
  - Can be a mobile or fixed facility
  - Once established, try not to move it
  - Manage the activity in the ICP!



# Conference Room CP



# Leadership Roles in Incident Management





- Home
- Local News**
- Most Popular
- Slideshows
- Video
- WLKY Investigates
- Feedback
- Cam/Boney
- Irresistible Headlines
- u local
- National News
- Weather
- Sports
- Entertainment
- Health
- Food
- Project: Economy
- Politics
- Traffic
- Community
- Education

Get Headlines Sent To Your Email Or Phone

**GO**

- MARKETPLACE**
- Advertise With Us
  - Healthwise
  - Going Green Kentucky
  - Get Healthy
  - Local Jobs
  - Half-Off Louisville
  - Coupon Corner
  - Auto
  - Family
  - Dating
  - Jobs
  - Real Estate
  - House and Home
  - Travel

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Homepage > LOUISVILLE NEWS

## Emergency Responders Train With Mock Disaster

By [Carissa Lawson/WLKY](#)

POSTED: 5:19 pm EDT March 31, 2010  
UPDATED: 6:17 pm EDT March 31, 2010

- Email
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- Comments (1)
- SHARE



Emergency Responders Train With Mock Disaster

**LOUISVILLE, Ky.** -- A train derailment caused a hazardous material spill and injured dozens of people in a simulated manmade disaster Wednesday afternoon.

It was called a tabletop exercise and gave emergency responders an opportunity to practice handling a hazmat disaster without putting any lives at risk.

Representatives from 31 different Metro agencies participated in the

disaster.

Hazmat leader Gary Yurt created Yurtville, a place where responders can put their skills to the test.

Yurt said the exercise was staged "so we are better at it when a real one occurs."

In this simulated disaster, a train derailed sending a chemical spill into the river.

Director of Emergency Services of Sts. Mary and Elizabeth Hospital Dr. Lisa Benner said drills like Wednesday's can help her when the real situation strikes.

# Mock disaster trainings Create a Positive Experience with the Community

# History of Yurtville™

- ▣ Created in 1998 by Gary Yurt
- ▣ Started training Emergency Responders across the US on behalf of Borden Chemical, Inc.
- ▣ Have trained over 100 agencies and 5000 students
- ▣ Longest event lasted 6 hours
- ▣ Shortest event lasted 45 minutes

# The Key to the Training

- ▣ The key to using Yurtville™ is to provide a positive learning environment with reality-based scenarios that the student can mentally accept and then link to new challenges and complex incident management decision-making.
- ▣ Yurtville™ will allow the participants a positive learning experience even though they maybe stressed and frustrated by the role-playing during the process.

# Tabletop Exercise?

- ▣ The large tabletop 9'X20' depicts an urban downtown roadway, railroad, river, industrial park, schools, hospital and several types of businesses.











# CITY OF YURTVILLE

**Time: 11:45 A.M.**

**Day: Thursday March 29,2012**

**Temperature: 80 Degrees**

**Wind: Out of SW @ 8 mph**

- Mill worker and a truck driver are offloading an 8000 gallon tanker of Methanol into a stationary vessel on Georgia Pacific Mill property.
- Construction workers are working on an underground water main NE of the incident.
- Construction equipment is being moved into position throughout the Mill in preparation for construction work .

At 1145hrs the truck driver and the mill worker notice a strong alcohol odor at the unloading station.

They investigate and locate a large methanol leak on a 4" hose off of the tanker. The hose has busted and unknown how long the leak had been progressing.

At this time what notifications  
should occur





11:47

ERT arrives and begins assessment.

Discover the leak is still active and a large spill has resulted.

Discover the truck driver and the Mill employee are down and unconscious.

11:49

Reports to the guard shack of a strong alcohol odor is being discovered throughout the Mill

12:05 PM

A **FIRE** develops around the  
tanker truck

12:10 PM

The tractor trailer begins to  
catch on fire

12:15 PM

News media arrives at the front gate asking questions!

12:30 PM

Storm approaches with heavy  
rainfall

12:32 PM

News helicopter is seen flying  
over the incident

12:35 PM

Fire has been extinguished but there is still large quantity of product on the ground

12:37 PM

Rain water is spreading  
product

12:40 PM

End of Scenario

# EXERCISE 2



# CITY OF YURTVILLE

**Time: 12:45 P.M.**

**Day: Thursday March 29, 2012**

**Temperature: 80 Degrees**

**Wind: Out of E @ 8 mph**

- The Mill is operating at normal capacity
- There are several construction projects through out the Mill
- The contractors have full crews working

At 12:46 p.m. the operators notice a significant pressure drop in the storage tank pressure. A 2” hole has developed in the tank. There is 50,000 gallons of ClO<sub>2</sub> in the tank.

At this time what  
notifications should occur



At 12:48 p.m. the ClO<sub>2</sub> sensors detect levels that activate the alarm system.

Steps should be taken for a  
conference style Command  
Post in an appropriate location

At 12:55 p.m. it is reported that there are two people located in the area that are not accounted for.

At 1:00 additional Clo2 alarms are activated down wind.

50 employees are having problems breathing at several muster points.

At 1:15 p.m. the news media arrives in the area.

Their helicopter also arrives and is flying over the plant.

At 1:20 Zachary Fire  
Department arrive on the scene.

Also Louisiana Department of  
Environmental Quality arrive  
on the scene

At 1:25 The Louisiana State Police received reports from local news media of the incident and called the Mill to advise they have a response group en-route to the area.

At 1:30 Baton Rouge  
Mutual Aid Association  
(Bramas) arrives on the  
scene.

1:45

Scenario Ends