



## PRECONFERENCE WORKSHOP DESCRIPTIONS

### MONDAY, APRIL 15, 2024

#### Monday 9:00 AM – 5:30 PM

##### A. The Chemistry of Hazmat Workshop - Robert Salvesen - The Haz Mat Guys

Though we are known for breaking the tough topics down to the 5th grade level, there are sometimes you can't get around it. Take a journey with The Haz Mat Guys to explain some serious chemistry and let us try to make this dense topic something that is not only digestible, but useful on the street throughout your career. The morning will consist of introductions, overview of chemistry in Hazmat, salts, non-salts, and corrosivity. The afternoon portion consists of hydrocarbons, hydrocarbon derivatives, chemical and physical properties deep dive.

This course will go in-depth to the following topics related to hazmat scenes:

- Defining chemistry as it pertains to size-up and tactical advantages gained from knowing and understanding
- Detailed analysis of chemical structures and the impact on operations
- Group discussion and collaboration to ensure understanding

##### B. Developing and Implementing the Hazmat Group Operations Plan - Gregory Socks, Jason Waterfield, Toby Frost, and Hank Dupont - Emergency Management Solutions, Inc.

This presentation will address developing and implementing the HM Group operational plan utilizing the "Eight Step Process". Students will utilize HM group functions to manage simulated scenarios involving fixed and transportation HM releases. Air monitoring simulation will also be part of the scenarios. This is an excellent team building presentation and hands-on program.

Program Objectives:

- A better understanding for team building.
- Learn and share new information.
- A better understanding for group functions and responsibilities.
- Use of the eight-step process as a management tool.

##### C. Hazard Identification Testing System (HITS course) © - Robert Coschignano and Mike Bloski - HazMat 101 Consultants

The basics of research is one of the most important, but confusing subjects on a hazardous materials incident. Using the Hazardous Identification Testing System (HITS), the technician will be able to identify chemical properties of a substance or compound by simple field testing. Conducting basic testing such field papers, flammability, and solubility, the technician then may move into advance testing with detection equipment to classify a chemical into a chemistry group. Although the technician may not be able to know the exact name following the HITS system, they should be able to recognize the general group in under 15 minutes. The chart provided is a collective group of information that before was scattered among accepted reference sources. The HITS system brings this information together in for easier access. This course addresses competencies in NFPA 470 and designed for experienced technicians familiar with most terms and equipment used in hazardous materials response. The format will be instructor lead, in-class with practical demonstrations.



## WORKSHOP DESCRIPTIONS

### TUESDAY, APRIL 16, 2024

#### Tuesday 9:00 AM – 10:30 AM

**A. Train Derailment Response - On-scene Incident Commander – EPA**

A seasoned on-scene Incident Commander with the U.S. Environmental Protection Agency (EPA) will take you through a train derailment response from start to finish. Learn about the ins and outs of working with the EPA during a response and hear the lessons learned from past derailments to help you prepare for a similar response in your area.

**B. Modern Day Decon - Curt Thompson - Right Track Response Solutions**

Tactical Advantages help responders win the war. WARS<sup>®</sup>, is a new concept that will help responders properly perform Decon. The CLEAN<sup>®</sup> concept, another advanced modern concept, will be discussed and help responders understand how to determine the appropriate Decon for the situation. Each of these concepts are part of a System that will guide responders in the proper Decon application and type to increase effectiveness and reduce potential exposure, all while lessening your Decon footprint and personnel needed. Participants will be instructed in the principles and operational application of Modern Decontaminants and tools to make decon simpler and more effective as Decon processes have been relatively unchanged for 100+ years. This course explores how we can be more effective and efficient in Decon. Discussions will include Decon for Synthetic Opioids, CBRN, Biologicals, general Haz Mat calls, and post-fire Decon operations.

**C. The Challenging Foursome Part I - Gregory Socks, Toby Frost, Jason Waterfield, and Hank Dupont - Emergency Management Solutions, Inc.**

This two-part presentation will address similarities and differences, physical and chemical properties, transportation, storage, use and general actions and precautions to take when responding to a release involving Liquefied Petroleum Gas, Chlorine, Anhydrous Ammonia, and Liquefied Natural Gas. Several case studies involving each gas will be presented. The final NFPA LNG/LPG report will also be addressed.

**D. ABC Kits Chlorine Part I - Dow Chemical**

Two-part hands-on demonstration of the A-Kit, B-Kit, C-Kit, and Midland Kit.

**E. Anhydrous Ammonia Response – Applying Tactics to Scenarios - David Binder - Tanner Industries, Inc.**

Be prepared to handle anhydrous ammonia incidents effectively and efficiently. The session will begin with a class review of a customized guide card, including live release footage for anhydrous ammonia which follows the sequence of a hazmat incident and provides specific reminders and information for anhydrous ammonia responses.

- Indoor and outdoor situations.
- Control and containment tactics.
- Do's and Don'ts with water application.
- Potential hazards to be considered.

That will be followed by short tabletop scenarios with team play, providing some fun and entertainment, but more importantly allowing for some practical application in dealing with ammonia in real life incidents.

#### Tuesday 10:45 AM - 12:15 PM

**A. Stabilization-Hazmat - Jody Stanley and Ryan Briggs - FBI**

This presentation will cover the FBI's stabilization mission and how regional/state hazmat teams will be called upon to assist. Special Agent Bomb technician will go over tool compatibility and utilization of teams when in a

stabilization operation. The WMD Coordinator will discuss the investigative tools and evidence collection process that will happen after stabilization has been conducted.

**B. Building the Plane as we Fly it – Li-Ion Batteries in Practice – Robert Salvensen - The Haz Mat Guys**

The news has exploded with news of battery incidents lately. No place on Earth has been experiencing more than New York City. Take a journey with the guys who are on the ground handling the incidents, how the process has evolved, what we are currently doing, and where this is going. Plenty of time will be allowed for discussion. This course will go in-depth into the following topics related to hazmat scenes:

- Theory and practical application of energy storage systems
- Practical application of insults and their outcomes
- Real-world guidelines and anecdotal as well as white-paper findings on this topic

**C. The Challenging Foursome Part II - Gregory Socks, Toby Frost, Jason Waterfield, and Hank Dupont - Emergency Management Solutions, Inc.**

This two-part presentation will address similarities and differences, physical and chemical properties, transportation, storage, use and general actions and precautions to take when responding to a release involving Liquefied Petroleum Gas, Chlorine, Anhydrous Ammonia, and Liquefied Natural Gas. Several case studies involving each gas will be presented. The final NFPA LNG/LPG report will also be addressed.

**D. ABC Kits Chlorine Part II - Dow Chemical**

Two-part hands-on demonstration of the A-Kit, B-Kit, C-Kit, and Midland Kit.

**E. I-95 at the 122.2mm: 27 Hours of Questions-Did We Do It Right? - Glen Rudner - GDR Consulting**

Through a case study of an incident that closed a major interstate on the July 4th holiday week, this interactive program will discuss the incident, use of the ICS, Interagency Communication and Cooperation. The various components that helped make the decisions that ended with a long inquiry as to the actions of those involved in the planning, response, execution, mitigation, and remediation of the incident.

**Tuesday 1:30 PM – 3:00 PM**

**A. Reducing the Risk of Biological Exposure Using PPE/Decon to Reduce Contamination - Deborah Cushman - 51st CST**

The risk of biological exposure is real, and the threat is evolving due to laboratory experimentation, natural mutation, or being used as a WMD. The onset of symptoms may take days or weeks. This incubation period creates many concerns for responders who may have been exposed. What PPE is appropriate? What decon methods are practical and best? Why is doffing PPE such a critical task? This session will address these and other concerns regarding the response to a potential biological agent and avoiding contamination and the spread of the agent.

**B. Public Sector/Private Sector Interface During Chemical Spill Response - Tony Garcia - Anderson Development Company**

Enhancing security and resilience across the chemical sector requires a collaborative effort by private industry, public sector, and first response agencies. Planning for and responding to hazardous materials incidents and releases is a joint responsibility at all levels of government. Defining roles and responsibilities and the importance of coordination is a vital element of a successful response for all communities. This presentation will discuss these options, roles, and responsibilities.

**C. Flame Photometry Detection for TICs/TIMs and CWA Part I - Luke Sloan – Proengin**

This two-part workshop will provide a general overview of flame photometry and its use as a first in monitor for hazmat response as well as CWA response.

**D. Monomers with Inhibitor Response - Pete Kirk - Dow Chemical**

This workshop will be an examination of Acrylic Monomer Hazards and Emergency Response with the focus on the following materials:

Acrylates

- Glacial acrylic acid
- Methyl acrylate
- Ethyl acrylate
- Butyl acrylate
- 2-Ethylhexyl acrylate

#### Methacrylates

- Glacial methacrylic acid
- Methyl methacrylate

The focus will be placed on transportation methods and the Principles of Monomer Handling with the following in mind: Flammability, Toxicity, and Reactivity of the materials. Polymerization and Inhibitor triggers will be discussed with details on appropriate Emergency Response to an incident. Case studies will be provided.

#### **E. Responder Practical Skills Stations (Outdoors) - MSP-EMHSTC Instructors**

1. Chlorine A-kit: Students using gloves shall successfully apply a chlorine A-kit to a leaking cylinder (valve leak and side wall leak).
2. Chlorine B-kit: Students using gloves shall successfully apply a chlorine strong back covering a valve or fusible plug leak and/or side wall leak.
3. Chlorine C-kit: Students using gloves shall successfully apply a chlorine C-kit to one leaking valve on top of the rollover simulator prop.
4. ID and Risk Assessment: Students will be given a monitor and papers along with 2-4 samples to identify hazards and develop the appropriate PPE response.
5. Highway Cargo Valve Review: Students will be refreshed on valving and the safety devices on MC 406, MC 407, and MC 331.
6. Bonding and Grounding: Students will set up a ground field as well as ground and bond the containers along with pump.
7. Betts Valve: Using gloves, students will install a Betts Emergency Valve on the prop.

#### **Tuesday 3:15 PM – 4:45 PM**

##### **A. Fire Case Study-Mass Exposure to Hydrogen Cyanide - Jason Stevens - Lansing FD**

The saying goes, “experience is the best teacher.” This presentation will enable Fire and HazMat personnel to turn our near misses into lesson learned. In 2016, Lansing Fire responded to a commercial structure fire with an unknown source. After several hours of firefighting and mutual aid response from neighboring departments, Lansing Fire transported six firefighters to the hospital for presumed heat exhaustion and dehydration. The seat of the fire was an old pool turned into a foam pit; the heavy black smoke of the fire was filled with toxic Hydrogen Cyanide (HCN) gas. Several firefighters were tested and treated for HCN exposure. The presentation will highlight the necessity to test all responders at a similar scene if you have firefighters that have high levels of HCN without a failure in PPE. Surveys and other facts from responders at that incident will be shared to illustrate the possibility of multiple responders with HCN poisoning that day that were not tested.

##### **B. Back to the Basics - Grounding and Bonding - Glen Rudner - GDR Consulting**

The program will follow the recommendations as set by the NFPA 470 standard and discuss the misunderstanding of what ground resistance is and why we do it first. Then, by demonstration, the instructor will show how we set up a grounding field for the damaged container, grounding field for the recovery container and appliances, and how to bond them together. This is an interactive program that will ask the student to discuss the subject. You can bring your ground density meter with you and make sure you know how it works.

##### **C. Flame Photometry Detection for TICs/TIMs and CWA Part II - Luke Sloan – Proengin**

This two-part workshop will provide a general overview of flame photometry and its use as a first in monitor for hazmat response as well as CWA response.

##### **D. Battery Energy Storage Systems (BESS/ESS): The Shocking Response - Curt Thompson - Right Track Response Solutions**

In this presentation, we look at the basics of electricity and how Lithium-Ion has changed responses. In many cases, we as responders are focusing on response to electric cars, when another major threat looms as Battery Energy Storage Systems (BESS or ESS) are being installed in industry, businesses, and homes throughout the country at an alarming rate. Starting with Lithium-Ion batteries we discuss the components, hazards, and make up of these batteries. Also, discussed is electricity and Giga Watts, Mega Watts, and what that means to us. We then look at system installation, components, and potential issues. Near the end, we discuss response issues, priorities, safety issues, and current tactics to responding to the ever-changing response landscape of BESS/ESS.

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**Wednesday 8:30 AM - 10:00 AM**

**A. Training Management for Your Team is a Full-Time Job - Curt Thompson - Right Track Response Solutions**

We all know those team members who tireless work to advance our teams response capabilities through training. Most of the time this is not a full-time position as members are often developing training between calls, late nights at home, or even just before the training begins. Maybe that person, is you? Taking this session is a must for all HazMat trainers or those who help with training. We will discuss how to effectively develop, produce, manage, and provide training in a more efficient and effective manner. We will also look at methods for ensuring consistency in your training program, as training often gets delivered to only those who attend, while others are left out.

We will discuss how to utilize modern technology built for air traffic controllers and private industry to help train your members. We will also look at new terms to most of us such as SCORM, xAPI, and other new formats that can help us advance our teams performance faster. You will learn how easy it is to provide Virtual Instructor Led Training (VILT), Blended Online training, In-Person training, and Self-Paced training to members all while better managing their experience and improve your time commitment. We will also discuss the conversion of old PowerPoints into a more advanced and modern format such as Articulate, Storyline, or Captivate, making the training more interactive.

I will discuss meeting NFPA 470 and NFPA 1401 standards to provide and track your Haz Mat Teams training. I will also discuss:

- Providing Consistent Training Deliveries to Everyone
- Creating a New Member Orientation Training Program
- Utilizing Modern Technologies to Build Better Training
- Streamline Your Training Development and Delivery
- Overview Relevant Topics, Agendas, and Sample Schedules
- Record Keeping and Compliance Audits
- Discuss Instructor, Blended, and Online Based Learning
- Importance of Useable Training Records Database
- Benefit of a Mobile Accessible Useable Information Database

**B. Integrating IMTs on Large Incident - Jennifer Bowler-Monroe County Emergency Management and Jim Katona-Wayne County Dept. of Homeland Security, Emergency Management**

IMT overview: Learn how an IMT interfaces on a large-scale incident with Hazmat teams.

**C. Drones, ATVs, and More: Mobile Applications of Radiation Detection Equipment - Meredith Mayers - H3D, Inc.**

First responders should not wholly rely on handheld detectors when reacting to a call, since this risks exposure to potential hazardous materials. New detector types are steadily becoming available that allow for remote operation or mounting onto response vehicles. Learn more about these ruggedized detectors and how they have been used in several case studies that simulated dirty bomb detonation, radioactive material spills, and illicit transportation of radioisotopes.

**D. Ethanol Emergency Response Part I - Glen Rudner - Renewable Fuels Association**

Get an in-depth look at proper training techniques needed when responding to an ethanol – related emergency.

This two-part workshop will include the following elements:

- Ethanol and Ethanol-Blended Fuels
- Chemical and Physical Characteristics of Ethanol and Hydrocarbon Fuels
- Transportation and Transfer
- Storage and Dispensing Locations
- Fire Fighting Foam Principles
- General Health and Safety Considerations
- Storage and Pre-planning Considerations

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**Wednesday 10:15 AM - 11:45 AM**

**A. Aircraft Incident Response Scene to Termination - Eric Thomas - Western Wayne & Downriver Hazmat Teams**

This workshop will cover the initial response to an aircraft incident, hazards associated with the incident, management of the incident, Hazmat response, special precautions and hazards, notifications, and termination of the incident.

**B. Gas Detector Calibration, Maintenance, and Training - James Moore - Ideal Calibrations**

We'll be going over some common types of gas detectors and working through functionality, common repairs, and errors seen in the field. As well as proper documentation for bump tests and calibrations, common problems with sensors, and how to train for gas response in the field.

**C. Terrorism and Hazmat Response Tactics for the Emergency Services - Adam McFadden - Firehouse Training**

Ever wonder what the role of the Emergency Services is when dealing with large scale threats of Terrorism? How do Fire, Police, and Emergency Medical Services respond together in a Unified Command System, to handle these calls? This classroom session will cover the basic roles, responsibilities, and incident command tactics within the Fire Department and joint responding emergency services when dealing with events related to Terrorism, Weapons of Mass Destruction, Active Shooter, Chemical Attacks, and Bomb Threats.

- Review of Risk Assessments for Terrorism in North America
- Incident Command Systems for CBRNE Events
- Mitigation Strategies for Bomb Threats, Chemical Attacks, Active Shooter, and Nuclear Attacks
- Review of Downrange Tactics (Accountability and Entry Control, RECCE, Decon, Extraction, FTT, IC)
- Hazmat and CBRNE Communication Benchmarks: Review of Assigned Tasks (Incident Command, Hot Zone Priorities, Decon Options)
- Group Discussion: Do we perform a rescue, or isolate the controlled area?
- Practical Tabletop Scenario and Group Training Activities

**D. Ethanol Emergency Response Part II - Glen Rudner - Renewable Fuels Association**

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