

HOTZONE 2016

Pre-Conference Workshops

8:00 AM - Thursday, October 20th

On-Site

(LEPC) - "Effective Use of ALOHA Before, During, and After Chemical Incidents" (Morning Session)
(Seating Limited to 40 Students)

ALOHA is an "air dispersion" computer program and predicts downwind concentrations of dangerous atmospheres for some 850 chemicals. ALOHA also performs a number of calculations that can be a great assistance to first responders, such as "how long will it take for this tank to stop leaking", or "how long will it take for this puddle of chemical to evaporate", or "how much product will remain in the damaged container", and many other items. This course explores many uses of the ALOHA program, and the appropriate methods to utilize it before, during, and after chemical releases.

"Cameo, Wisser, Google Earth, Microsoft Office, and ArcView for Laptops, Tablets, iPhones, and other Devices" (Afternoon Session)

This course will instruct participants on a number of effective methods to exchange data and map information between the EOC and the field personnel, between various laptops and other devices, and between different software programs.

Taught by Tom Bergman, Robert Bradley

"Field Identification Laboratory: The Heinz 5-Step Method®"
(Seating Limited to 30 Students)

This 8-hour "wet chemistry" course will consist primarily of hands-on lab work with liquid and solid unknown chemicals. The hazardous properties will be discussed as each sample is tested and analyzed. Participants will work in small groups and examine approximately 10-12 samples throughout the day. Samples will consist of common corrosives, oxidizers, flammable and combustible liquids and solids, and others. Physical properties such as appearance, vapor pressure and solubility will be considered as it relates to hazard determination and response tactics for hazardous materials team members. Safety, personal protection, and proper technique when working with chemicals will be emphasized and stressed during this qualitative analysis/bench chemistry workshop.

Taught by Brian Heinz, Jeanette Heinz

"HazMat Medicine in the 21st Century Environment"

This course provides those medical personnel first-on-the-scene with basic information needed to recognize, evaluate, forecast and treat patients involved in the release of hazardous materials incident. It is intended for members of the Pre-Hospital Response Team at both the BLS and ALS Responder Level who may be called upon to provide assistance during such emergencies to safely deliver BLS/ALS treatment, triage at Hazardous Materials/Weapons of Mass Destruction Event. Participants will work on scenarios in organizing the EMS response team, protecting response personnel, identifying and using medical response resources, decision-making and protecting the public.

Taught by Toby Bevelacqua, Richard Stilp

"Tactical Technician – Chemical Properties, Detectors, and Tactical Decisions"

Tactical decisions at hazardous materials emergencies are heavily influenced by the material involved. Chemistry determines how a product will behave, what container it is stored and transported in, how it reacts to its environment-both within and outside the container, how it can be detected and identified, and the tools and techniques that will ultimately be needed to mitigate the incident. This workshop will help make tactical decision-making pieces at hazardous materials incidents fall into place. Using chemical demonstrations, scenario-based exercises, hands-on activities, and chemical identification exercises using a variety of air monitoring and sample identification equipment including pH paper, M8 paper, oxidizer paper, multi-gas detectors, PIDs, Raman, FTIR, and GC/MS instruments. Students will get hands-on experience with multiple and different chemicals during the workshop.

Taught by Chris Weber, Richard Dufek

"Basic Air Monitoring"

This 8-hour workshop will start with the basics and cover atmospheric air monitoring, the different technologies available to responders, and their use and applications.

Taught by Sam Summers

"HTAC –HazMat Tactical Analysis Card Course"

This 8-hour course is designed to prepare Hazardous Materials Operation Level First Responders to analyze a hazardous materials incident and determine the presence of hazardous materials, plan the initial response and develop a site safety plan and incident action plan (IAP) for the incident, and implement the planned response according to the IAP. The student will understand their responsibilities during all segments of an operation, identify hazardous materials and their containers, identify primary and secondary hazards associated with each type of hazardous material, plan an initial response within the capabilities of the first responders, mitigate risks encountered during operation level response activities, and work effectively within the incident command system (ICS).

Taught by Clint Greenwood

"HazMat Officer Competency Lab"

(Seating Limited to 30 Students)

Experience the closest thing to running a hazmat incident without actually spilling a chemical. Responders are challenged with realistic scenarios presented using state-of-the-art simulation software and real-time atmospheric readings via wireless monitors. The Incident Command staff is located in a separate room while "hot zone" entries are made in an adjoining room. Each room offers a different realistic view of the incident using CGI simulations. Entry team members can see different views based on their movements around the "hot zone". Atmospheric readings are sent to the entry team using wireless monitors that correspond to their movements. Communications by the entry team to the HazMat Team Branch Officer and then reported to the IC drives the decision process. Each scenario is completed with a brief review to discuss what went right and what could have been done differently. This workshop is ideal for both current and future Hazardous Materials Branch Officers, as well as aspiring Incident Commanders, who would like to learn how to develop an effective IAP and hone their command and control skills by experiencing a complete "hands-on" incident in the classroom before being thrown into the mix at an actual incident.

Taught by Rick Emery, Greg Socks, Justin Royall, Ray Burt

Off-Site

"Fire Smoke" – Perceptions, Myths, and Misunderstandings"

(Seating Limited to 30 Students)

This session will provide participants with the information needed to understand the unique health effects caused by smoke exposures. The class will discuss basic combustion chemistry, the hazards of fire smoke and the lethal combination of carbon monoxide (CO) and hydrogen cyanide (HCN) related to smoke inhalation. The discussion will also highlight the critical need for prompt recognition and treatment of acute cyanide poisoning, as well as discuss the cyanide antidotes currently available, and their limitations. The class will include discussion on the current trends in overhaul procedures related to respiratory protection and monitoring.

Training held at the Harris County Fire & Sheriff's Training Academy
Students Should Bring Their Turnout Gear

Taught by Rob Schnepf, Harris County HazMat, Jason Barnes, David Corbin

"HFD HazMat Incident Simulator"

(Seating Limited to 20 Students)

This offsite workshop will include a visit to the state-of-the-art HFD Incident Command Simulator. Activities will include a system demonstration and student participation in real life incident simulations. Development: Events such as multiple alarm fires, maydays, MCI's, hazmat, and ARFF operations are rare but pose a significant challenge to officers. These high risk, low probability, events are difficult to reproduce in a training environment, due to their large costs and manpower needs. In an effort to address this training shortcoming, the idea for a strategic simulator was developed. The Houston Fire Department Professional Development Division developed this idea into the HFD Strategic Simulator.

**Training held at the HFD Jahnke Training Center.
Taught by Butch Hayes, William Desmond, Adam Aiken, Ed Williams, Trey Bourgeois, Tony Janke**

**"The Many Faces of Emergency Management"
(Seating Limited to 30 Students)**

This unique pre-conference workshop will begin with a trip to the new Harris County EOC where students will be given a tour, a briefing about disaster management, and a demonstration of the capabilities of the newest and most advanced Emergency Operations Center in the State. The second stop will be at a large petrochemical plant in Deer Park for a briefing and tour of the company's new state-of-the-art industrial Emergency Operations Center. While at the plant lunch will be provided. The last stop will be at Houston's premiere sports venue, NRG (formally Reliant) Stadium. The students will participate in a walking tour and briefing about the stadium's emergency management plans. Students are required to wear long pants, closed-toe shoes, and sleeved shirts. This workshop requires considerable walking. Cameras are not allowed inside the industrial facility. Lunch is provided.

Taught by Rick Deel, Mark Sloan, Misty Gunn, Herbert Martinez, Ryan Boros

**"Houston Petrochemical/Industrial Marine Tour"
(Seating Limited to 25 Students)**

This workshop will provide an up close look at the many challenges that responders face in one of the world's busiest ports and the nation's most critically important, strategic Petrochemical Complex. The session will begin in the classroom and cover many of the maritime and industrial recognition and identification elements that will be on-viewed when the students travel to the Port of Houston Complex for the second part of the session and where they will participate in a waterside assessment aboard one of the new Houston Port Authority Fire Boats. Lunch on Your Own.

Taught by Bill Hand, Richard Lawhorn, Mike Oder, and the Port of Houston Fire Department

HOTZONE 2016 Conference Workshops 1:00 PM - Friday, October 21st

(LEPC) "The Evolution of HazMat" – 90 Minutes

How did hazardous materials response get to where it is today? A look back in history at some of the key events that help to drive the evolution that became hazardous materials response. Texas City, Texas; Kingman, Arizona; Crescent City, IL; Shreveport, Louisiana, these are just a few of the events that helped to drive the change that would lead to hazardous materials response. Join us as we follow the road through history stopping along the way to look at the key events that were the catalyst for change. Lessons learned that should not be forgotten.

Taught by Tobias Frost

"Risk-Based Approach for Safety Officer & Incident Commander" – 90 Minutes

The session introduces a risk-based approach that will provide the Safety Officer and Incident Commander with the knowledge, skills, and abilities to develop an Incident Action Plan for a safe effective response. A risk-based approach is a systematic process by which Officers begin by analyzing an event, using on-scene indicators to identify any potential types of harm (e.g., thermal, radiological, or explosive), then evaluating the potential consequences, an "if this, then that" decision-making strategy, and guiding the Officer to pick the best option. There are always several on-scene indicators to use to determine the type of incident (i.e. containers, signs & symptoms). The value of decision points is that they are a systemic approach to all phases of an emergency that keeps the Officer on track to make efficient and thorough decisions, at a significant event

Taught by Tony Mussorfiti

"Pyrophoric Materials; What are They?" – 90 Minutes

A variety of pyrophoric gases such as silane, diborane, and phosphine, liquids such as trimethylgallium and trimethylaluminum and solids such as trimethylindium has traditionally been used in the MOCVD and Silicon IC process industries as well as the polypropylene industry. With the expansion of the industry into TFT-LCD, nano and PV industries other pyrophoric chemicals such as disilane, trimethylboron and trisilane are

finding increasing use. Since they are all pyrophoric should they be handled the same? What is their behavior during a release? Do they have other hazards we should be aware of? This 90-minute class will be an overview of the key properties of pyrophoric materials as well as highlight relevant incidents and issues.

Taught by Eugene Ngai

"Are Fireworks a Hazardous Material?" – 90 Minutes

In many jurisdictions, consumer fireworks are still legal to sell and use. Are these materials considered hazardous materials or not? How about local codes and ordinances? What about their packaging and transportation? What are some of the dangers associated with their use?

Taught by Mike Montgomery

"If You Cannot Measure It You Cannot Manage It!" – Part 1 of 2

When responding to a chemical event, it's critical that the material be identified as soon as possible. The thought process should involve protecting oneself and detecting the product or agent of harm. Most responders under-utilize their detectors in standard hazmat response and seem to get away with it. But in a true chemical event, the importance of monitoring is critical in making key decisions, such as identifying a hoax, establishing zones, making evacuation decisions, mandating PPE and determining decontamination needs. This is a hands-on program using tabletop scenarios and multiply interactive detection devices that will provide the first responder the skills that they will need when faced with a hazardous material incident.

Taught by Frank Docimo

"Highway Cargo Tank Truck Emergencies" – Part 1 of 2

This is a crash course on highway cargo tank truck emergencies. We will focus on becoming familiar with the most common types of cargo tanks used in bulk shipments of hazardous materials and discuss the chemicals typically found inside those containers. We will look at those tanks in their normal configuration, talk about their safety systems, look at how they respond to road trauma, and discuss mitigation options after finding them on their side or on fire.

Taught by Richard Meehan

"Should I Stay or Should I Go?" - 90 Minutes

Discussing the importance of hazard and risk assessment. Participants will review cases where intervention was both successful and tragic. Emphasis placed on the importance of research and how using proven models to determine potential outcomes is vital to success. Participants will review different scenarios then asked to go through decision-making models to determine if intervention would be the best choice. Use of the DECIDE process in determining if an offensive or defensive posture should be taken when presented with various scenarios. How GEBMO is utilized as part of the DECIDE process. Why being able to make better estimations early will improve the overall outcome. Understanding that sometimes sticking in there instead of pulling out is the worst decision with long lasting consequences.

Taught by Shereen DeVries, Bill Hand

"Regional Intelligence Fusion Centers" - 90 Minutes

Regional Intelligence Fusion Centers play an important role for exchange of intelligence and information between multiple response agencies in a given area of operation. Come learn about the Houston Fusion Center its successes and collaboration.

Taught by Robert Montalvo, Darryl Cherry

"HazMat Response to Odors in Buildings" - 90 Minutes

HazMat teams respond to reports of odors all the time, and many of these calls can be challenging. This session focuses on how to determine the cause of the common odors, the unusual odors and the weird odors. There are true sick buildings and there are buildings with a chemical problem, one can be easily solved by a response team, the other requires more substantial work. This session will cover examples of both and provide strategies and case studies to handle these types of situations.

Taught by Chris Hawley

"T-5 – Taming the Tiger Tactics & Tabletops" – Part 1 of 2

Be prepared to handle anhydrous ammonia incidents effectively and efficiently. Session will begin with a class review of an updated 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. 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 the tiger when it gets out in real life incidents.

Taught by Dave Binder, TRANSCAER®

“Joint Operations; We Are All On the Same Side” – 90 Minutes

The Austin Fire Department recently participated in possibly a first of its kind joint multi-agency/jurisdictional event – the serving of an administrative warrant at two properties (a house and a storage facility unit) where large amounts of chemicals, radiological and biological materials were being stored and possibly used for various processes. AFD Investigators wrote the warrant, with input from COA Code Enforcement Department officers, and sought (and obtained) judicial approval to serve it from a public safety aspect. This workshop will be a case study of the process taken and the path utilized to gain entry into the structures.

Taught by Larry Jantzen, Austin Police Department Bomb Squad

HOTZONE 2016 Conference Workshops 3:00 PM - Friday, October 21st

(LEPC) “LEPC 101”

This workshop will cover the EPCRA federal and state legislation and legal requirements and background for establishment, implementation, and operation of LEPCs to include EPCRA Sections 302 (EHS), 304 (Spill Reporting), 311 (Tier I Reports), 312 (Tier II Reports), and 313 (TRI).

Taught by Tom Bergman

“The Dirty Dozen – 12 Common Mistakes in HazMat Response” – 90 Minutes

Legendary UCLA basketball coach John Wooden said “If you’re not making mistakes, then you’re not doing anything. I’m positive that a doer makes mistakes”. How we deal with mistakes is an integral part of our response. The instructors will share common mistakes that are often part of our hazmat responses and offer some solutions on dealing with these mistakes. This interactive course will encourage the student to offer solutions to the problems presented.

Taught by Doug Rohn, Joe Bartholomew

“Compressed Gas Emergency Response Fundamentals” – 90 Minutes

This 90 minute Compressed Gas ER Fundamentals class will provide the First Responder with a working knowledge of the physical and chemical behavior of a compressed gas that can affect the incident assessment or mitigation plan. It will include many of the more hazardous specialty gases classified as highly toxic, corrosive, oxidizing, unstable. The student will get a basic understanding of key Chemical / Physical properties

Taught by Eugene Ngai

“Street Smart HazMat Simulations” – 90 Minutes

Scenario Based Training (SBT) has become the new buzzword for education in the emergency services. In this session you will discover a new approach beyond Scenario Based Training, one that utilizes multiple approaches, with one such method that includes gaming simulations. The concept is to provide a learning environment, which provides discovery of processes and procedures while at the same time learning through experience within the scenario. The concept is simple; teach the ideas through and with context application, as well as discussion using mini scenarios, always culminating in a thorough review of the process with the use of a contextual simulation. Join us to show a new and proven method for education within the emergency services.

Taught by Toby Bevelacqua, Mike Callan

“If You Cannot Measure It You Cannot Manage It!” – Part 2 of 2

Taught by Frank Docimo

“Highway Cargo Tank Truck Emergencies” – Part 2 of 2

Taught by Richard Meehan

“HazMat Things That Will Kill You” - 90 Minutes

There is stuff that will kill you fast and there is stuff that will kill you slow! Come see what you need to be concerned about.

- Energy – Energy releasing materials (fuels, NH4NO3...)
- Not understanding risk assessment – Benner’s model
- Heat stress
- Toxic atmosphere – especially oxygen deficient – confined space (also impacts meter behavior)
- Basic stuff – slips, trips, falls, sprains and strains
- Products of combustion (common fire gases, carcinogens)
- A few bad chemicals...(other than the energy releasers)

Taught by Kristina Kreutzer, Bill Hand

“The Contamination Nightmare: Mercury, Do You Have a Plan?” – 90 Minutes

This presentation will have a lecture format, using existing response programs from different jurisdictions. Case studies shall be addressed and basic response and handling guidelines shall be discussed.

Taught by Greg Socks

“The New Wild, Wild West: Bath Salts, Spice, and Synthetics” – 90 Minutes

Bath salts, spice, and synthetics, what are we getting into? What are the hazards of these unknown mixtures? In this presentation we will look at the history, components and chemistry, as well as current trends in these operations. We will examine the alphabet soup of chemicals and explain what they are. How can we identify these chemicals? Why are these operations so hard to stop? And what is next?

Taught by Tobias Frost

“T-5 – Taming the Tiger Tactics & Tabletops” – Part 2 of 2

Taught by Dave Binder, TRANSCAER®

“Marijuana Grow Operations/Hash Oil Extraction” - 90 Minutes

For the last several years there has been a nationwide push to legalize the recreational use of Marijuana in the United States. Recently, two states, Colorado and Washington, have passed legislation that allows recreational and medical marijuana use. This new addition to the American pastime has created a whole new set of uncontrollable factors for members of the American fire service to train and plan for. As a result, Marijuana Grow Operations are opening up in the communities we serve, faster than fire departments can plan, train and implement safe operating procedures when called to respond to these facilities. These are just a few of the items of concern when operating on an incident at a Marijuana Grow. First responders need to be diligent in their preplanning to address concerns that will arise when operating on an offensive attack at a Marijuana Grow. This class is a 90-minute journey on how to recognize and safely operate on calls involving Marijuana grow Operations and Butane Hash Oil Extraction processes.

Taught by C.J. Haberkorn (Repeated)

HOTZONE 2016 Conference Workshops 8:00 AM - Saturday, October 22nd

(LEPC) “EPCRA Tier 2 Reports: Not Just Another Piece of Paper!” – 90 Minutes

All local fire departments are given Tier 2 data from EPCRA...now how can we use that information to help in pre-planning and response? Students will be given an overview of EPCRA and the Tier 2 report. Students will then be given scenarios based on a Tier 2 report and how they would preplan and respond to an incident at the fixed facility.

Taught by Mathew Marshall

“Railroads 101” – 90 Minutes

The BNSF Railroad presents a Railroad 101 workshop on "crude derailment response considerations" and "basic response to a derailment".

Taught by Clay Reid

“Strap It On, Plug It Up & Let’s Get Dirty” – Part 1 of 2

This is a hands-on workshop covering plugging and patching strategies and tactics for application in the field. Students should come prepared to work in work clothes.

Taught by Shereen DeVries, Adam Aiken, Richard Lawhorn

“Meth Labs – Now What?” - 90 Minutes

“Shake and Bake”, “Nazi Method”, “Red-P”, and “Breaking Bad” meth labs are everywhere, even on TV. What is really going on? What are our hazards? How do we decontaminate responders and limit on scene time? How can we handle these labs and what do we need to watch out for? What is next? Several different production methods will be evaluated along with a new response model that pairs fire based hazmat response with police based lab processing for a faster more efficient scene processing. Several case studies will be used to help identify some of the hazards associated with illicit labs.

Taught by Tobias Frost

“Advancing the Responder Tool Kit With Handheld Mass Spectrometry” – 90 Minutes

Numerous detection and identification technologies are available to first responders, ranging from pH paper to infrared (IR) and Raman. However, capability gaps still exist for down range CWA/TIC missions during site assessment. Recently released rugged, handheld devices based on High Pressure Mass Spectrometry (HPMS) can address many of these gaps with rapid target confirmation of numerous priority hazards. Products can be measured from trace to bulk quantities in solid, liquid, and vapor form. This hands-on workshop will introduce the capabilities and limitations of HPMS technology to demonstrate how it can help eliminate detection blind spots in a HazMat event by properly integrating a handheld mass spectrometer with currently deployed meters. Learn through hands-on exercises where HPMS fits into a risk-based response process, and how the technology may benefit your agency.

Taught by Dr. Mark Norman

“Collaborative Emergency Response to Industrial Facilities” – Part 1 of 2

In August 2013, Executive Order (EO) 13650 was issued with the aim of improving chemical facility safety and security in coordination with facility owners and operators. The EO addresses several aspects of safety and security and assigns specific tasks to various Federal agencies. This workshop will explore options for assessing the emergency response needs of facilities; models for establishing lasting partnerships between local responders and facilities, and present ideas on where we need to go in the future.

Taught by Keith Silverman, Bill Cullen

“A HazMat Responder’s Guide to Flash Fire Protective Clothing” – 90 Minutes

This course will provide information on different performance standards available to assess chemical protective clothing worn by HazMat Responders when the garment is exposed to a chemical flash fire. Information will be shared regarding NFPA 1991 (gas tight suits) and NFPA 1992 (liquid tight suits) standards’ Flash Fire Escape Option tests and NFPA 2112 (Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire). The student will understand what different claims of “FR” really mean for their HazMat suits.

Taught by Susan Lovasic

“Managing the Common Operational Picture” – 90 Minutes

A Common Operational Picture is critical to managing any kind and type of response. Recent case studies consistently highlight how having a good, solid Common Operational Picture is instrumental in managing the situation, resources, response activities, and external “friction” (whether it be political dynamics, a hyperactive media, heightened environmental concerns, or a host of other concerns). Likewise, a poor grasp of the situation has caused Unified Commands to struggle in gaining control of the incident. Leveraging today’s available technology (including ARC GIS, drones, CAMEO) can be one way to aid an incident management team get a better handle on the Common Operational Picture. This presentation will highlight some best practices that incident management teams have found to collect, analyze, and display information that decision makers need to best manage all aspects of incident they are faced with.

Taught by Robert Bradley

“Chemical Exposure Limits For Emergency Events: When Every Second Counts” – 90 Minutes

When responding to a chemical release incident, rapid compound identification and assessment of airborne concentrations are crucial. However, such information is of limited utility without an understanding of applicable chemical exposure limits from which to compare results. This presentation will focus on the identification and application of available

chemical exposure limits with specific emphasis placed on those exposure durations from 10 minutes to 2 weeks, post-incident. This presentation will provide initial responders, operations, and site-management personnel with an understanding of the key toxicological variables needed to make informed evacuation and/or reopening decisions.

Taught by Mike Berg

“Hanby Environmental TPH Test Kits for Immediate Detection of Hydrocarbons” – 90 Minutes

This course will enlighten the students on the science behind and the utilization of the Hanby TPH Field Test Kits that have been used the world over for the last 28 years for the analysis of water and soil. The kits are used for the immediate detection and analysis of hydrocarbons with results in 4-6 minutes. Utilizing the kits with immediate results as opposed to waiting time delayed lab results provide invaluable information during a spill response. This immediate assessment of the necessary spill response contaminant and concentration level thereof provides the First Responders details needed to make immediate decisions to mitigate damages to the community, environment and the popular at risk.

Taught by Charles Fator

“HazMat Research Software: So Much to Do, So Little Time 6.0” – 90 Minutes

This session will demonstrate computer-based hazmat research capabilities using a variety of free and proprietary software, both currently available and in development. There will also be a discussion on integration of software research with other modalities. Some of the programs to be covered, are ADASHI, CAMEOfm, COBRA, CT-Analyst, HotSpot, HPAC, IMPACT, PEAC and WISER. Attendees will see the programs compared and contrasted, and contact information for each of the program distributors will be provided.

Taught by Alan Finkelstein

HOTZONE 2016 Conference Workshops 10:00 AM - Saturday, October 22nd

(LEPC) “Getting the Most Out of Your Interagency Relationships” – 90 Minutes

Regulatory requirements, Inter-local agreements, mutual aid compacts, and sometimes, plain common sense require us to participate in a wide array of interagency committees, boards, and other similar functions. Active and engaged relationships are the critical success factor in today’s all-threat/all-hazards environment. Failing to have established effective relationships before an incident or event occurs can cause serious struggles during the early part of a response. Likewise, having a solid foundation before the incident can pay big dividends. This study looks at some effective ways to build and sustain successful interagency relationships using the dynamics of interagency committees and boards that will facilitate long-term interoperability amongst all stakeholders.

Taught by Joe Leonard, Bobbie Jackson

“Toxic Suicide/The Changing Views of the Hemlock Movement” – 90 Minutes

Since even before biblical times people have selected different toxic chemical to either commit suicide or homicide. Hemlock, arsenic, phenol, cyanide, carbon monoxide, hydrogen sulfide, and the list goes on. Emergency responders, many times from a hazmat response, today can be met with patients who have attempted suicide and were unsuccessful. This presentation provides hazmat medical responders with insight into how and why people attempt suicide. The presentation will review how often it happens and what types of chemicals are typically used. There will be a focus on a safe but reasonable response, diagnosis of these patients, and basic/advanced treatment (both BLS and ALS) for these patients. Attendees will be provided with quick reference materials on toxic patients, and will leave with an understanding of the pathophysiology involved in a patient’s toxic response. Real life scenarios will be used to discuss response techniques and identify diagnostic and treatment tricks of the trade.

Taught by Richard Stilp

“Strap It On, Plug It Up & Let’s Get Dirty” – Part 2 of 2

Taught by Shereen DeVries, Adam Aiken, Richard Lawhorn

“The Colorimetric Conundrum” – 90 Minutes

Confused by Colorimetric Tubes? Do they work – not work? Are they accurate? Can they really solve my problem? Come to this session and you will learn the answers and become a colorimetric guru. This session will cover the science, use, care and feeding of colorimetric tubes.

Taught by Chris Hawley

“Things That Change Your Life As a Responder” – 90 Minutes

A presentation based on 44 years as a responder 36 of them involved in hazardous materials response training. Over the years (age, being one of the things) you realize you have changed from that 21-year old firefighter to a grumpy old something and in hindsight you see where, when and sometimes who helped you travel the road to where you are now – which is still a responder - but a much better one. The “forks in the road” are there, you just have to know how to interpret them.

Taught by Mike Callan

“Collaborative Emergency Response to Industrial Facilities” – Part 2 of 2

Taught by Keith Silverman, Bill Cullen

“Hazardous Materials Program Management” – 90 Minutes

People are led and things are managed! Ever thought about the difference between the two and when to be a manager and when to be a leader? If you are responsible for a hazardous materials response program and looking for advice and guidance on how to run it without tearing your hair out, this session is for you. We will focus on the people skills necessary to take on the challenge of leadership and the use, care and feeding of a hazmat program. Lot's of tips and perspectives that will help you be successful!

Taught by Rob Schnepf

“METERS 101...Mission Specific for Operational Trained Responders” - 90 Minutes

It is so important that the recent NFPA 472 update requires that even Operational Level Trained responders have a good understanding of basic air monitoring equipment. Most responders under-utilize their detectors in standard HAZMAT response and seem to get away with it. The importance of monitoring is critical in making key decisions, such as identifying a hoax, establishing zones, making evacuation decisions, mandating PPE and determining decontamination needs. This program will focus on using and understanding the “Devices In-Hand” that most Engine Company and Operational Trained Responders have available to them.

Taught by Frank Docimo

“Indicating Papers” – 90 Minutes

Indication papers are used by all hazmat teams. Most do not understand the proper use limitation and interpretation of the results. Many of the technician level textbook have little information on the use of indication papers. Since these should be part of any initial entry to a hazmat incident all technicians need a complete understanding of them. I will start with a short presentation of the science and proper use, followed by the students do hands-on exercises to demonstrate the proper use and interpretation of the results, or lack of results. Each exercise will be followed with a discussion on the next steps in the monitoring/identification process.

Taught by Rick Dufek

“HazMat Apps!” – 90 Minutes

Today's reality is that first responders and technicians will use their smart phones and tablet devices to search chemical information at the scene of a hazardous materials emergency. Back for its second year, HAZ MAT APPS has been polished and additional applications will be highlighted and displayed. Both Apple (iPhone, iPad) and Android platform applications will be discussed. Brian and Jeanette will share their top picks and functional exercises will show their usefulness at an emergency scene!

Taught by Brian Heinz, Jeanette Heinz

“Bulk Compressed Natural Gas Emergencies” – 90 Minutes

As the use of natural gas becomes more common in areas not serviced by a traditional pipeline, first responders need to be aware of the safety features, installation, and testing requirements of the fixed site systems and equally important, be able to identify the different types of transport vehicles being used to transport, store, and offload Compressed Natural Gas (CNG).

Taught by Chris Christopoulos

HOTZONE 2016

Conference Workshops

1:00 PM - Saturday, October 22nd

(LEPC) “What You Need to Know About Community Air Monitoring” – 90 Minutes

Technology in the world of Emergency Response has advanced astronomically in recent years. Ultimately this brings a sense security and awareness to workers and responders. But is this sense a true or false one? There is a large dependence on air monitoring which has too vast of a range to successfully approach public and worker safety. Do we truly know how to interpret the intel this technology provides? Given the provided data, can we produce interpretations and honestly understand readings to make the best- informed decisions when defining zones, assessing PPE requirements, and planning response actions?

Taught by Kawehilani “Lani” Dorow, Ray Meyer

“The Jack Rabbit Tests: Large Scale Chlorine Tests” – 90 Minutes

Since 2010, DHS has conducted scientific studies of large-scale releases of compressed liquefied gases with unexpected results. In August and September of 2016, Jack Rabbit II, Phase II is concluding the large-scale tests with up to 20 tons of liquefied Cl₂. This workshop provides an overview of the preliminary results of the project while discussing specific phenomenon that has occurred and its impact on the first responder community utilizing actual videos of the releases.

Taught by Dave Matthew, Andy Byrnes

“Lessons Learned From Ebola in NYC” - 90 Minutes

The lecture session will begin with a general knowledge overview of Ebola Virus Disease. The purpose of this will be to see the various knowledge levels of members of the HazMat community around the country. The presentation will begin to focus on the Ebola cases that were dealt with over the last year in New York City. This presentation will highlight the procedures that the FDNY went through in order to develop plans for dealing with patients that possibly had Ebola. It will go over the PPE selection process and the standards that needed to be met for appropriate PPE. The presentation will go into a brief case study of the Dr. Craig Spencer job. Dr. Spencer was the confirmed Ebola case that occurred in New York City that was treated and transported by HazMat trained FDNY EMS personnel. The presentation will then cover the evolution of how the FDNY treats and transports patients with possible EVD. Decon procedures on the first EVD call in NYC are significantly different from what is currently in place.

Taught by Joshua Sutherland

“WMD Response – Operational Reality” - 90 Minutes

The session will use FBI case histories and the experiences of the presenter as a member of the FBI Laboratory's Technical Hazards Response Unit to illustrate the reality of responding to hazmat/WMD terrorist incidents. The relevance of the session to the audience is based upon the limited incidents most responders will see involving actual use of “WMD” agents or hazardous materials during an intentional criminal event. For many responders their perception of these events are based upon erroneous interpretations of reality by the media, entertainment industry, or other sources.”

Taught by James Perkins

“How Smart Is Your HazMat Team” – 90 Minutes

An innovative way to test your responders on hazardous materials response be they FRA, FRO or Technician. Using a weighted scoring methodology and a practical way to monitor the answers, this process has been well received throughout the hazmat community.

Taught by Mike Callan

“The Radiation Fall Games” – 90 Minutes

Radiological Game Day will provide responders with an opportunity to learn and/or reinforce their radiological response knowledge through “competition”. And of course, there will be prizes! Also, “cheating” will be encouraged through the use of reference materials! Categories to be discussed during the competition include common radiological sources, detection devices, dosimetry, PPE, protective action guidelines, radiological zones, shielding and entry times, radiological survey and decontamination.

Taught by Cheryl Weaver-Docimo

“Ion Mobility Spectrometry Technology” - 90 Minutes

This class will cover the IMS technology and when and where it fits in the hazmat instrument matrix. It will explain the difference in open loop or aspirated and closed loop or non-aspirated. Discuss internal instrument contamination by unknown chemical saturation. Discuss where the instrument can be of aid to help in determining the possible location of a trace spill and how to use the Chempro as an air sampling instrument.

Taught by Scott Tippen

“Marijuana Grow Operations/Hash Oil Extraction” - 90 Minutes

Taught by C.J. Haberkorn (Repeated)

“What Could Possibly Go Wrong?” - 90 Minutes

This session looks at several scenarios with discussion about each potential outcome. We tend to approach the problem with a monoptic view. In general HazMat response is regarded as a complicated topic. When in reality it is just like any of the rescue disciplines a refined art, however as with any art review of the issues within context is how we learn. We will identify a process towards, analyzing and thus controlling the risks and hazards that are present or may become a part of your incident, discussing tactical problems, safety concerns and community impact. It is a balanced approach weighing the risk benefit towards a strategy and/or scene mitigation tactic.

Taught by Michelle Murphy

“The Challenging Threesome” – Part 1 of 2

Lecture shall be presentation through team teaching, which includes many years of experience in emergency response and handling of Propane, Anhydrous Ammonia, and Chlorine releases. Multiple aspects of teaching and learning shall be delivered such as, Lecture, Case Studies, and Classroom Participation.

Taught by Greg Socks, Bill Hand, Robert Bradley

“Training the New HazMat Technician” - 90 Minutes

This workshop will discuss some training techniques on training the new hazmat tech. Percipients will learn some new and old ways of training the new hazmat tech. We will look at the use of electronic devices to the use of

hands on props and everything in between.

Taught by Butch Hayes

HOTZONE 2016 Conference Workshops 3:00 PM - Saturday, October 22nd

(LEPC)“The Lost Art of Improvement Planning” – 90 Minutes

What's the best way to render all the work you've done planning and conducting an exercise a complete waste of time? **Dropping the ball on the After Action Review/Improvement Planning Process.** After all the time and effort that goes into the planning and execution processes, both exercise staff and participants are ready to pack it in at the end of the last exercise day. This can result in the After Action Review/Improvement Planning phase being approached with much less enthusiasm than it deserves. If this occurs, the whole process collapses. The goal of this workshop is to get you thinking about Improvement Planning as the main purpose of conducting an exercise. We'll discuss some of the common things that make this process less effective and then explore ideas and practical strategies to incorporate improvement planning throughout your entire exercise program.

Taught by Monique Robertson-Lewis

“Briefing the Boss” - 90 Minutes

This workshop provides smart practices in developing and presenting Risk-Based Response recommendations to decision makers at HazMat/WMD events. Utilizing lessoned learned from actual events, evidence is provided on how information is conveyed is critical in achieving positive outcomes. Special focus will be put on how to present technical information from our detection technologies in street terms so shared understandings can be obtained.

Taught by Dave Matthew

“Develop a Playbook for Response to HazMat/WMD Emergencies” – 90 Minutes

The session provides information the development of SOG using a risk-based approach. It emphasizes use of decision-point approach over tactical-based approach in which responders take specific actions at specific points. Each incident is dynamic and a function the on-scene indicators, requiring responders to adapt to ongoing and often unpredictable event.

Taught by Tony Mussorfiti

“Unknown Chemical Identification Through Opaque Containers Using Handheld Detection Techniques?” - 90 Minutes

Handheld Raman-based chemical detectors have been used by Hazmat, Military, and Security personnel to identify unknown chemicals for more than a decade. One of the main advantages of traditional Raman-based chemical detectors is that the instrument can identify unknown samples while the sample is in thin & transparent vials, bottles, or bags, which reduces the risk to the downrange operator. The goal of this workshop is to introduce a next-generation technique (Spatially Offset Raman Spectroscopy – SORS) that allows unknown chemicals to be confidently identified through opaque containers. In this workshop, a handheld chemical detector that employs the SORS technique will be introduced in the context of First Responders, the through-barrier identification capability will be demonstrated live using benign samples, and interested parties will have the opportunity to gain hands-on experience with the technique.

Taught by Dr. Eric Roy, Chris Waier

“HazMat Considerations During Natural Disasters” – 90 Minutes

During a natural disaster, there are many things to consider in an incident response plan. One area that is sometimes overlooked is HAZMAT considerations during natural disasters. Hazardous chemicals are found everywhere. They purify drinking water, increase crop production, and simplify household chores. Chemical can also be hazardous to humans or the environment if released improperly. The risk of an incident like this occurring increases significantly during natural disasters because of property damages, power failures, and traffic hazards. This presentation will outline Hazmat variables to consider during four types of natural disaster and the best ways to identify, isolate, and mitigate these hazards during a disaster situation.

Taught by Tessa Smith, Joe Leonard

“Legal Aspects For The HazMat Officer” - 90 Minutes

This workshop will provide a general overview of the U.S. legal system that can impact a HazMat Officer's decisions at a major incident. Topic that will be discussed include:

Federal Law, Constitutional, Statutory, Administrative, Case law, State and Municipal law, Basis of FD authority, Federal HazMat law, OSHA, Hazwoper, EPA, DOT, Coast Guard, Other agencies, Fire Codes, EMS, HIPPA, Legal duties for Firefighters, Social media, Intellectual property, Criminal law, Anatomy of a civil lawsuit, Examples, Kennedy Mint

Taught by Alan Finkelstein

“FLIR and Radiation” – 90 Minutes

Taught by Chris Skrocki

“Chemical Suicides – A HazMat Perspective” - 90 Minutes

This session will briefly look at history and then move into discussion from the HazMat perspective of the trending method. Starting with a review of an incident from the Fire Fighter's Near Miss system to reinforce how complacency with these events has crept into our operations. Using a discussion of chemical and physical properties, monitoring, and research (to satisfy refresher guidelines) each method will be examined in detail. This will help develop methodology for approaching an event of unknown origin, and allow for the determination of products and safe mitigation. Research will then be presented to validate the approaches to scene safety and ventilation. Several real world incidents will be discussed to further reinforce the concepts that have been presented.

Taught by Phil Hebert

“Thermal Imaging Use in HazMat” – 90 Minutes

A thermal imaging camera is an often under-utilized tool that is an important part of a hazmat response. This course will lead the student through several responses where a thermal imaging camera can be used. This course will offer response tips and tactics for a safe response using thermal imaging.

Taught by Doug Rohn, Joe Bartholomew

“The Challenging Threesome” – Part 2 of 2

Taught by Greg Socks, Bill Hand, Robert Bradley

“E-Plan for First Responders” – 90 Minutes

This course is an overview of E-Plan, the nation's largest database of chemical and facility hazards data with over 400,000 facilities and over 24,000 unique chemicals. It is free, simple and easy for first responders and state and federal personnel to use. E-Plan provides chemical facility reporting data and other important information instantly such as maps, CHRIS data, SDSs, toxic profiles, ERG pages, Plume mapping, weather data and NFPA codes.

Taught by Mathew Marshall