

**2011 HAZMAT
Training and Education Conference
September 29 – October 2, 2011**

Online Registration: http://www.regonline.com/2011_PAHAZMAT



**Pennsylvania Association of Hazardous Materials Technicians
HACC Wildwood Conference Center
One HACC Drive Harrisburg, PA**

**2011 HAZMAT
Training and Education Conference
September 29 – October 2, 2011**

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**Pennsylvania Association of Hazardous Materials Technicians
HACC Wildwood Conference Center
One HACC Drive Harrisburg, PA**

***** Special Sessions *****

**Date: Friday, September 30, 2011
Breakfast Buffet, 9-11 Tribute and Briefings
Location: HACC Wildwood Conference Center
Time: (8:00am – 10:15am)**

*Presentation of Colors (ceremony begins promptly at 8:30am)
Harrisburg High School Junior Naval ROTC*

**“NEVER FORGET” ... 9-11-2001 Tribute and Presentation
Carol L. Adams (PAHMT President)**

Nuclear Power Plant Briefing, Dan Rand (TEEX)

PHMSA and Pipeline Emergencies Briefing, Tim Butters (USDOT)

Friday, September 30, 2011
Dinner, PAHMT Annual Meeting and Elections
Dinner begins promptly at 5:30pm
Time: (5:30pm – 8:00pm)
Location: Best Western Premier Hotel and Conference Center

Town Hall Meeting (SP 10)

US Department of Homeland Security Grant Funding Update Grants Programs Directorate Representative

A representative from the DHS Grants Programs Directorates Office, will provide time sensitive updates regarding grant funding processes, available resources and opportunities as it relates to financial assistance for 1st Responders.

PEMA / Labor & Industry / PAHMT Working Group Update

Henry Tamanini, Jack Rozman, Lester Gordon (PEMA) Tom Ward, Carol Freeman (Labor & Industry), Carol L. Adams, Steve McManus (PAHMT)

Members from the PEMA/Labor and Industry/ PAHMT Working Group will provide pertinent updates regarding:

- **Act 165, 2004**
- **Directives (D 2004-01 and D 2010-02)**
- **Hazardous Material Response Team State Certification / Recertification Criteria**
- **PENNSAFE**

Your input is requested and welcomed during this interactive Town Hall Meeting. Informational updates will be provided by various industry professionals to include representatives from the US Department of Homeland Security (DHS), Pennsylvania Emergency Management Agency (PEMA,) Pennsylvania Labor and Industry (PENNSAFE) and the Pennsylvania Association of Hazardous Materials Technicians (PAHMT). Information and documents provided during this interactive session will be valuable for Command and Operations Level Responders, as well as our Public and Private Partner - Industry Colleagues. Agency liaisons will be anxiously waiting for your questions, concerns and dialogue, to assist in building regional resilience!

***Pennsylvania Association of Hazardous Materials Technicians(PAHMT)
*** Annual Meeting and Special Election (1st and 2nd Vice President) ******

*****National Fire Academy - Standard Dress Code Enforced during Dinner***

Saturday , October 1, 2011

Reception (begins promptly at 5:00pm), with Dinner immediately following.

Time: (5:00pm – 8:00pm)

Location: Best Western Premier Hotel and Conference Center
***Induction Ceremony, Awards Banquet and
Keynote Speaker***

***Deputy Chief Robert A. Full
Pennsylvania Emergency Management Agency (PEMA)***

*****National Fire Academy - Standard Dress Code Enforced during Dinner***

Sunday, October 2, 2011

Breakfast begins promptly at 9:00am.

Time: (8:30am – 12 Noon)

Location: Best Western Premier Hotel and Conference Center

SP 11

Terrorism Briefing, Door Prizes and Closing Ceremony

**The Israeli Phenomenon:
Everything You Always Wanted to Know...
Yet Were Afraid To Ask !
Glen Rudner**

“NEVER FORGET”

2011 PAHMT ANNUAL CONFERENCE INFORMATION

HOTEL INFORMATION :

Best Western Premier Hotel and Conference Center
(Formerly the Sheraton Four Points)
800 East Park Drive
Harrisburg, PA 17111
Phone: 717-561-2800; mention the PA Hazmat Association to receive the reduced rate of \$99.00 per night

TRAINING SITE INFORMATION :

Harrisburg Area Community College, C.Ted Lick Wildwood Conference Center
One HACC Drive
Harrisburg, PA 17111
Phone: (717) 780-2331

VENDOR/SPONSOR REGISTRATION :

Contact: Katrina Harris, Bridge Consulting
Phone (610) 494-8044
kharris@bridgeconsultingcorp.com
Visit www.9-1-1.org to download an application

SCHOLARSHIP INFORMATION :

Contact: Tom Glass – Scholarship Chair
Scholarship@9-1-1.org
Visit www.9-1-1.org to download an application

****National Fire Academy - Standard Dress Code Enforced in all classrooms (unless you are enrolled in an Operations - Response based course at the Public Safety Center)**

Conference Registration Fees:

Full Conference Package: Includes Pre-Conference and Main Conference training courses, training materials and meals as described below - \$250.00

Fee Per Day: Daily registration includes training courses, training materials and meals for each day selected (if you do not purchase the Full Conference Package) \$80.00 per day

Meals only (Daily Guest rate): Breakfast \$10.00, Lunch \$15.00 and Dinner \$20.00

DHS Course participants (PER – 212 and PER-240): the Meal Plan will cost \$35.00 per day, the course Instructors and Training Materials are paid for by Grant Funding.

NOTE:

Included with your full conference package registration fees - Breakfast and lunch are provided on Thursday, Friday and Saturday. Dinner will be provided on

Pre-Conference and Main Conference Thursday - Sunday September 29 – October 2, 2011

***** Please review schedule carefully for appropriate times, course hours and associated dates. *****

PER – 212 Operational Level Response to Hazmat / WMD

(Lecture/Hands On)

TEEX

Harvey Stewart and Dan Rand

Held at Public Safety Center (Thursday, Friday and Saturday) 24 hours

SP – 1

This course focuses on the unique personal protection challenges that responders face during a weapons of mass destruction (WMD)/terrorist incident or a hazardous materials incident. PER-212 is based on NFPA 472 (2008) consensus standard operations-level core competencies and personal protective equipment (PPE) mission specific competency, as well as OSHA (29CFR 1910.120) and EPA (40CFR Part 311) response regulations. PER-212 provides the knowledge and skills needed to obtain certification through the National Professional Qualifications System (NPQS/ProBoard) at the Hazardous Materials Operations level (NFPA 472). The course is delivered using lectures, interactive participant activities, performance-oriented skills stations, small group discussions, multimedia scenarios and a real world exercise. Upon successful course completion, participants will be able to respond to a WMD/terrorism incident in a defensive mode and preclude the spread of a CBRNE hazard to the public and the environment.

Continuing Education Credits: IACET - 2.4 CEUs (PER-212)

Prerequisites: None

Recommended: TEEX AWR-160-W WMD Terrorism Awareness for Emergency First Responders

(on line course offering)

(<http://teexwmdcampus.com>) 0.4 CEUs

PER – 240 WMD / Radiological / Nuclear Responder Operations

(Lecture / Hands On)

Nevada Test Site / University of Nevada

Held at Public Safety Center (Thursday, Friday and Saturday) 24 hours

SP – 2

This course is delivered throughout the nation to jurisdictions approved by FEMA/NPD and the Centralized Scheduling and Information Desk. Cadre will conduct a site survey in advance of training to coordinate with local sponsors to identify and schedule classroom and urban training facilities for the practical hands-on training. The course prepares emergency response personnel to respond to an incident involving a radiological or nuclear weapon of mass destruction (WMD), such as a Radiological Dispersal Device (RDD, —Dirty Bomb) or an Improvised Nuclear Device (IND). The course begins by giving the student a conscious awareness of the fundamentals of radiation, health effects, recognition, and terrorist use of radiation and radiological material. Responders are given hands-on experience with radiation fields while learning the basic operation of radiation detectors and dosimeters. Students are

taught to conduct radiological surveys of personnel, vehicles, facilities, and outdoor areas. Hands-on activities blend cognitive knowledge of radiation and instruments with survey techniques used in detecting the presence of radiation, locating radioactive material, and measuring levels of radiation and radiological contamination. Once individual and small team skills are mastered, responders are taught operational considerations when responding to a radiological WMD incident. Students form operational teams that deal with cadre-evaluated realistic drills involving likely terrorist use of radiological material. The course culminates with an evaluation exercise requiring student teams, under a unified command, to respond to a scenario where terrorists attack a facility or public transportation system, disbursing radiological material. Air-purifying respirators may be worn (for training purposes only) during the final exercise for those certified by their organization to wear respirators (bring documentation to the course). Although every participant will be issued a respirator, dosimeter, and radiation survey meter, the participants are encouraged to bring their own from their home department or jurisdiction.

Certificate / CEU Credits:

Certificate of Completion is issued upon successful completion of the course. Continuing education credits (CEUs) will be provided from the University of Nevada, Las Vegas.

Prerequisites: Weapons of Mass Destruction Radiological/ Nuclear Awareness Course (AWR 140 W) This course is available online at <http://www.ctosnnsa.org>

Delmar Hazardous Materials Operations Level Refresher (DHMOR)

Ken Hudson and Rick Orange

SP – 3

Held at the Public Safety Center [6 hours]

Students completing this course will be able to safely and effectively perform at the operations level at a hazardous materials release. This program is designed to refresh student knowledge and skills in hazardous materials response actions in accordance with requirements of annual refresher training as identified by regulating agencies. The primary target audiences for this course are the First Responders who have successfully completed a Hazardous Materials Operations course. Student will review the knowledge and skill requirements for effective scene and response management. This course will provide the First Responder with the refresher training needed to comply with NFPA 472 Competencies for the First Responder at the Operations Level, and 29 CFR 1910.120 OSHA's Hazardous Waste Operations and Emergency Response, (HAZWOPER), First Responder Operations Level annual refresher training.

Referenced Text(s): Hazardous Materials Handbook: Awareness & Operations Levels, Pennsylvania Custom Edition. Delmar Instructor Resources CD; OSHA 29 CFR 1910.120; DOT 49 CFR 171-173; NFPA 471; NFPA 472; DOT Emergency Response Guidebook, latest edition; ***NIOSH Pocket Guide to Chemical Hazards***, latest edition, DHHS (NIOSH) Publication No. 97-140, U.S. Department Health and Human Services, Public Health Service, Centers for Disease Control & Prevention; ***Fundamentals of Industrial Hygiene***, latest edition, National Safety Council; ***Hazardous Materials, Managing the Incident***, latest edition, Noll, Hildebrand & Yvorra, Fire Protection Publications, Oklahoma State University. Lecture / Lab Breakdown: 2/4

Description of Methodology: Lecture, discussion, and scenario based practical evolutions.

HAZMAT OPS CERTIFICATION "PREP" COURSE Illicit Lab Response and Evidence

Preservation / Collection Dennis Harris and Dennis Woodring

SP – 4

Illicit Lab Response and Evidence Preservation/Collection [2 hours] 1030 – 1230 hours

This session will focus on response techniques to illicit laboratories, WMD or narcotic manufacturing; citing NFPA 472, 2008 edition, Implementing the Planned Response for an Illicit

Laboratory and Evidence Preservation, Collection and Sampling. The topics will include size-up considerations; interagency operations; implementing a planned response; safety hazards; evidence preservation, collection and sampling; cross contamination issues; record keeping; and decontamination considerations of equipment, personnel, and sample packaging.
Held at Public Safety Center (Friday) 1.5 hours

HAZMAT OPS CERTIFICATION “PREP” COURSE Victim Rescue and Decontamination Practices Dennis Harris(Dauphin and Dennis Woodring
SP – 5

Victim Rescue and Decontamination Practices [3 hours] 1300 – 1630 hours

This session will focus on the NFPA 472, 2008 edition chapters of Victim Rescue and Recovery, Mass Decontamination and Technical Decontamination. Areas covered will include, implementation of ICS, considerations for first responders when dealing with contaminated patients and victims, appropriate PPE selection, emergency and mass decontamination of victims and responders, establishment of rapid mass decontamination lines, and support of Hazardous Materials Response Team technical decontamination. Responder and victim safety will be covered throughout the session ensure to limit cross contamination and exposure during operations.

Held at Public Safety Center (Friday) 3 hours

HAZMAT OPERATIONS CERTIFICATION EXAMINATIONS Practical and/or Written

Dennis Harris and Dennis Woodring

SP – 6

ALL DAY SUNDAY [0800 – 1600 hours]

Held at Public Safety Center

Hazardous Materials Operations Certification with Mission Specific Pilot Test

This certification is based on the current 2008 NFPA 472 standard. The test will include all the chapters of the standard:

- 6.1 General Requirements
- 6.2 Personal Protective Equipment
- 6.3 Mass Decontamination
- 6.4 Technical Decontamination
- 6.5 Evidence Preservation and Sampling
- 6.6 Product Control
- 6.7 Air Monitoring and Sampling
- 6.8 Victim Rescue and Recovery
- 6.9 Response to Illicit Laboratory Incidents

In order to prepare for these certifications there are a variety of courses available throughout the conference. Pre conference Hazardous Materials Operations Refresher will cover the topics of General Requirements, Personal Protective Equipment and Product Control. Air monitoring and sampling training is available through the Thursday and Friday Air Monitoring sessions. Decontamination and Illicit lab training will be host during the Friday morning and afternoon session. Those interested in these exams should plan accordingly to prepare for the exam in the areas that refresher training is needed.

Anyone who has certificated to the previous Hazardous Materials Operations 472 standard are considered as completing the General Requirements, Personal Protective Equipment and Product Control.

***** The test will be scheduled to have the new mission specific certifications first, so those that have already certified under the older standards may be dismissed early.**

Hazmat Responders and Utility Emergencies

Mike Callan

SP – 7

ALL DAY SATURDAY (8 hours)

This session addresses the immediate need for all responding to electrical and natural gas infrastructure emergencies. The lack of awareness of the hazards and risks present in electrical and natural gas infrastructure may pose serious threats to responders. To eliminate unnecessary injuries this session follows the information used in the popular textbook ***Responding to Utility Emergencies*** that was developed by Michael Callan and utility experts. The target audience for this session is all emergency responders—firefighters, police officers, emergency medical and industry personnel—as well as incident commanders and emergency response supervisors. This session will cover safe operating procedures, hazard and risk evaluation and response implementation for handling electrical and natural gas infrastructure emergencies.

Chemistry Refresher

Armando (Toby) Bevalacqua

SP – 8

ALL DAY SATURDAY (8 hours)

Basic Street Chemistry was specifically designed for the operational responder. Developed and written by Chief Bevalacqua as an alternative to collage chemistry, it has been presented at international conferences and emergency response agencies at the federal and state levels. It is the application of chemistry within emergency response utilizing detection and monitoring strategies which is the bases of the instructional design against a backdrop of real world scenarios to visualize the concepts presented. Upon completion of this course work the participant shall be able to predict potential hazard outcomes based upon the chemical and physical characterization of the event.

NFPA 473 Essentials: What do I really need to know?

Einstein Physician Response Group

SP – 9

ALL DAY SATURDAY (8 hours)

NFPA 473 is the Standard for Competencies for EMS Providers Responding to Hazardous Materials/Weapons of Mass Destruction Incidents. It is the only NFPA standard designed to address health and medical aspects of preparedness, response, mitigation and recovery from hazardous materials incidents. There are relatively few NFPA 473 courses available in the US and completion of such curriculum usually requires 3 days of operational education and 2 days of hazmat toxicology. This 8-hour course will present an overview of essential concepts necessary to manage both the operational and administrative aspects of a hazmat/WMD incident including analysis of the incident, planning the response, implementing the planned response, reporting and documenting the incident and terminating the incident. The course primarily addresses concepts which can be understood and managed at the EMT-Basic level provided that students have an administrative or chief officer background. A brief review of hazmat toxicology is directed towards ALS providers.

Thursday
September 29, 2011
Pre-Conference Workshop Sessions
0900-1700

*** Please review schedule carefully for appropriate course location and associated times. ***

Basic Chemistry for Hazmat Responders

Richard Dufek

PC – 1

It is important that responders have some knowledge of chemistry basics when handling an incident involving hazardous materials. During this one-day training, you will learn the National Fire Protection Association (NFPA) 472 terms emergency responders must understand to assess hazards and risks during an incident.

The training is presented by Richard Dufek, who has more than 30 years experience in fire service and has conducted hazardous materials, terrorism and detection equipment training. Dufek is the author of *Basic Chemistry for Emergency Responders*.

Chemistry is a fearful subject for emergency responders. Come learn the basics of chemistry and the application to your response. NFPA 472 has 68 terms the emergency responder must understand for hazard and risk assessment. We will look at the least understood terms and the importance to emergency response.

The goal of this course offering is to demonstrate the importance of basic chemistry in the hazardous materials incident response. At the end of this course, the students will be able to:

- List the benefits of understanding basic chemistry and how it relates to HazMat incidents.
- Define and explain the different types of chemical reactions that may occur during a HazMat incident.
- Determine if a material is a salt or non-salt and list the general hazards of each.
- Identify six types of salts and determine their general hazards.
- Identify non-salts as organic or inorganic.
- Determine if a hydrocarbon is saturated, unsaturated or aromatic and list the hazards for each type.
- Identify the type of hydrocarbon derivative by chemical name or formula.
- Determine how size, structure and polarity affect the physical and chemical properties of a material.

This session is a demonstrated lecture, using past incidents to show the student the importance of the delivered material. This valuable class will provide the responders with the basics, which they can build on in the future.

Hazmat IQ – 4 Step System Above The Line / Below The Line Joe Gorman

PC – 2

The HazMatIQ Above The Line/Below The Line system is a patent pending program developed by responders, for responders and only available from HazMatIQ. The HazMatIQ system incorporates our trademarked innovative street smart —Cheat Sheets II that enable responders to safely and efficiently respond to any known or unknown chemical or mixture. Students taking this course will be able to size-up (physical state, hazards, initial hot zone, correct meters and PPE) any chemical in minutes. The system then coaches responders through a streamlined chemical research method

to verify their initial size-up, preparing responders to immediately go to work when they arrive on a Hazardous Materials/WMD event.

HazMatIQ Specifications:

HazMatIQ Training is different than any other Hazardous Materials Training on the market. Listed below are training methods utilized only by HazMatIQ and it's qualified and specialized Hazardous Materials instructors:

- Patented HazMatIQ **4-Step System** for Hazardous Materials Response
- The HazMatIQ 4 – step system is a risk-based response system that guides the responder through a simple 4-Step process:
- Step 1) Revolutionary 10 – second —Above the line – Below the line chemical size-up.
- Step 2) Streamlined chemical research process.
- Step 3) Choose the appropriate meter(s).
- Step 4) Select the proper personal protective equipment.
- HazMatIQ **Smart Charts** and NIOSH Guides for safe, simplified response
- Train how to evaluate physical state, hazards, initial hot zones, correct meters and PPE within **minutes**
- Coach responders through chemical research method to verify initial set up
- Prepare responders for **immediate response** upon arrival on a Hazardous Materials incident

US Department of Transportation

Pipeline and Hazardous Materials Safety Administration (PHMSA) Workshop

Anthony (Tony) Murray and Reginald (Reggie) Dunn

PC – 3

The Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) specify requirements for the safe and secure transportation of hazardous materials in commerce by rail car, aircraft, vessel, and motor vehicle. These comprehensive regulations govern transportation-related activities by offerors (e.g., shippers, brokers, forwarding agents, freight forwarders, and warehousemen); carriers (e.g., common, contract, and private); packaging manufacturers, re-conditioners, testers, and re-testers; and independent inspection agencies.

The HMR apply to each person who performs, or causes to be performed, functions related to the transportation of hazardous materials such as determination of, and compliance with, basic conditions for offering; filling packages; marking and labeling packages; preparing shipping papers; handling, loading, securing and segregating packages within a transport vehicle, freight container or cargo hold; and transporting hazardous materials.

This one-day workshop provides a basic overview of how to use the HMR and a summary of many of the requirements found in the HMR – for shipping and transporting Hazardous Materials which can affect transportation safety to include: Training Requirements, Packaging, Hazard Communications, and Security.

Who Should Attend? Anyone who offers or transports hazardous materials in commerce or has a desire to learn more about US DOT's Hazardous Materials Regulations.

NFPA 473 Essentials: What do I really need to know?

Einstein Physician Response Group

PC – 4

ALL DAY THURSDAY [8 hours]

NFPA 473 is the Standard for Competencies for EMS Providers Responding to Hazardous Materials/Weapons of Mass Destruction Incidents. It is the only NFPA standard designed to address health and medical aspects of preparedness, response, mitigation and recovery from hazardous materials incidents. There are relatively few NFPA 473 courses available in the US and completion of such curriculum usually requires 3 days of operational education and 2 days of hazmat toxicology. This 8-hour course will present an overview of essential concepts necessary to manage both the operational and administrative aspects of a hazmat/WMD incident including analysis of the incident, planning the response, implementing the planned response, reporting and documenting the incident and terminating the incident. The course primarily addresses concepts which can be understood and managed at the EMT-Basic level provided that students have an administrative or chief officer background. A brief review of hazmat toxicology is directed towards ALS providers.

RAPID T

Dr. Joe Suyama, MD

PC – 5

This intensive course covers the essential elements for recognition, decontamination, triage, and treatment of victims of explosive/incendiary incidents, radiological exposure, and biological contamination. With a combination of lecture and hands-on experience, this course is a must for any medical provider, especially those working with hazmat teams.

Descriptions: Explosive/Incendiary/Crush: By the end of class the student will be able to:

1. Recognize and triage blast injured patients based on clinical findings
2. Understand the types of injuries created by explosive devices
3. Manage blast injuries and associated conditions, such as crush injury
4. Understand the risks of secondary devices and radiological dispersion devices

Radiation Injuries: By the end of class the student will be able to:

1. Recognize radiological injuries based on routes of exposure
2. Understand the clinical findings related to severity of exposure to radiation
3. Manage radiation injuries and identify need for PPE and decontamination

Biological: By the end of class the student will be able to: 1. Recognize syndromes suspicious for biological agent release

2. Understand treatment options, protective measures, and prophylactic measures related to specific biological agents
3. Manage patients with contagious illness with appropriate level of PPE
4. Understand the role of the pre-hospital provider during a public health crisis

Sophus: Interactive computer simulation demonstrating clinical findings of WMD exposure and response to medical interventions

1. Biological
2. Nerve agent/Chemical

Nerve Agents: By the end of class the student will be able to:

1. Recognize signs and symptoms of nerve agent exposure
2. Understand the need for appropriate level of PPE and decontamination
3. Triage and treat patients based upon the route of exposure and severity of clinical findings

Chemical: By the end of class the student will be able to:

1. Recognize signs and symptoms related to chemical agent exposure

2. Understand the need for appropriate level of PPE and decontamination
3. Triage patients based upon clinical findings
4. Manage specific exposures to vesicants, pulmonary agents, and newer incapacitating agents

Hazmat Safety Officer “Keeping it Real”

Ted Deecke, Steve McManus and Robert (Bob) Muller

Held at Public Safety Center

PC – 6

According to Chapter 11 of the 2008 version of NFPA 472 —The hazardous materials safety officer (NIMS: Assistant Safety Officer — Hazardous Material) shall be that person who works within an incident management system (IMS) (specifically, the hazardous material branch/group) to ensure that recognized hazardous materials/WMD safe practices are followed at hazardous materials / WMD incidents.

The presenters of this program have over 60 years of combined experiences responding to and operating in short and long term hazardous materials emergencies and spill response. This program is intended to provide the participants with tools to act as the hazmat safety officer at any size spill.

Ethanol Emergencies

Glen Rudner

PC – 7

[6 hours]

Participants will learn about ethanol fuel including its use, chemical and physical characteristics, transportation, transfer, and the hazards responders and others should be aware of with its production, distribution, and consumption. Review recently released information regarding ethanol and its effect on currently available flammable liquid firefighting foam concentrates. Interactive discussion and review of the process used in determining resource needs, and developing an action plan to mitigate a spill or fire involving ethanol blended flammable liquids. This session is based upon a training package created through a partnership between the International Association of Fire Chiefs and the Ethanol Emergency Response Coalition.

Air Monitoring Extravaganza !!!

Chris Wrenn

PC – 8

- 1. There is No Such Thing as Nerve Gas [0900 - 1200 hours]**
- 2. PID's as a Hazmat Response Tool [1300 - 1430 hours]**
- 3. Blowing Up Can Ruin Your Whole Day [1500 – 1630 hours]**

There is no such thing as “Nerve Gas”

Understanding CWAs, their Detection and Decision-Making

This course educates responders about CWAs, what they are, where they come from and the various clues we can use to identify their presence and act accordingly. CWA response is a three step process using location techniques, classification techniques and identification technologies. In this course responders will learn how to properly layer these techniques to quickly make effective decisions. At the completion of this course, the students will :

- Understand the nature of CWAs and that there is no such thing as “Nerve or Mustard Gas”
- Understand all of the clues and techniques for locating, classifying and identifying CWAs

- Demonstrate an understanding on how physical and biological clues along with location, classification and identification devices are used in a synergistic manner to effectively make decisions in a potential CWA incident.

Blowing up can ruin your whole day

Combustible gases and vapors are one of the most common gaseous threats for HazMat responders. However, many responders don't fully understand how their combustible gas sensors operate and what their limitations are. This course will discuss the operation and limitations of Wheatstone bridge catalytic bead LEL sensors, infrared combustible sensors, thermal conductivity combustible gas sensors, dilution fittings and even using Photoionization Detectors (PIDs) for assessing combustible environments. It will help you understand when to trust and use each.

PID's as a HazMat Response Tool

Photo Ionization Detectors (PID's) measure ppm levels of many toxic gases and vapors. PIDs are a valuable tool for making HazMat responses safer, shorter and less costly. This is an extensive seminar that discusses how PIDs work and how to apply them to a HazMat incident.

So You Wanna Be A Pennsylvania State Fire Academy Instructor

William P. (Bill) Ruth

PC – 9

If you are a seasoned professional with a Hazardous Materials or Fire Services background, this seminar is for you ! The primary focus of this course offering will define the requirements to become credentialed as a Hazardous Materials and/or Fires Services Instructor. This seminar serves as one of the initial steps in joining the ranks of the Pennsylvania State Fire Academy's esteemed cadre of professionals.

This two (2) hour seminar will address the questions and concerns of the process in becoming a Pennsylvania State Fire Academy accredited Instructor. An outline of the application process, Instructor opportunities and benefits will be presented. Roles, responsibilities and expectations of potential instructors, will be clearly defined. This seminar will provide lecture and interactive discussion regarding policies, procedures and guidelines relating to the application process and systematic next steps. Additionally, information will be conveyed to the participants regarding the process to become associated with PSFA and other accredited educational training agencies.

BIO Sampling [5 .5 hours]

Rick Emery and Jayne Morrow

PC –10

Prior to the 2001 Anthrax letter attacks, few responders were confident in field sampling for potential biological threats. White powder sampling quickly became a key issue for responders and soon after work started on a national sampling standard culminating in the publication of ASTM E2458. ASTM E2458 has been revised following feedback from the response and public health communities. During revision of the standard the community recommended guidance to assist in initial response coordination and overall guidance from best practices across the country.

In the opening session a detailed understanding of the sampling protocol and an overview of the guidance document ASTM E2770 will be presented. Best practices for coordinating sample collection and submission to meet the needs of responders, law enforcement, and public health will be covered. During the practical session the sampling technique will be demonstrated before presenting participants with three typical “white powder” response situations. Participants will be provided with the supplies and PPE required to implement the sampling standard and guidance while collecting and testing the samples in accordance to accepted ASTM standards.

Friday
September 30, 2011
Main Conference
Session #1
1030-1200

Considerations for Law Enforcement Response in a Hazmat Environment

SA Phil Smith

FM – 1

Increased awareness in the ability to weaponize chemical, biological or radiological material has impressed upon law enforcement the need for the enhanced capability to respond with a combination of PPE and tactical gear.

This mission presents new challenges to all levels of law enforcement. The FBI created hazmat teams and enhanced SWAT personnel for the WMD mission in the late 1990s and continues to enhance response capability in this area.

SA Smith has been FBI Pittsburgh's Hazmat Response Team Leader for 8 years, was an FBI SWAT team operator for 11 years and supports FBI headquarters efforts to continually improve upon this mission.

Hazmat on the Rivers: Awareness and Response Considerations

Commander Richard Timme

FM – 2

Western PA rivers have moved an average of 2.7 million tons of petro-chemical cargos each year, over the last decade. Commodities include benzene, ammonia, acids, refined petroleum, gasoline, diesel and others. Whether the risk is from man-made or natural incidents, responders will deal with bulk quantities in the hundreds of thousands of gallons shipped by barge, that pose significant threats to public safety and health, and threaten water supplies, industrial bases and ecosystems. The presentation will outline the scope of the spill potential (risk), mitigation and preventive regimes in place, and discuss response considerations and techniques unique to the rivers environment.

Hazmat Fusion: From the Streets to You!

Amber Wells, Kelly Wolfe and Tom Wells

FM – 3

Learn how the National Hazmat Fusion Center works to help keep you safe during Hazmat responses as critical information is gathered and shared from Hazmat responders around the country. Discover the opportunities and products available for responders on the Hazmat

Fusion Center website through a live demonstration and see how the Incident Reporting System works for Hazmat teams. Explore the role of the Hazmat Fusion Center Regional Incident Survey Teams at the street level in developing lessons learned, smart practices, and training packages. Provide your feedback to the Fusion Center to improve its operations and service to you.

The Colorimetric Conundrum

Chris Hawley

FM – 4

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.

Integrating Field and Hospital Operations in Responding to a Hazardous Materials Incident

Tom McElree, Esq and Fred Peterson

FM – 5

Hospitals and EMS Agencies are operating at or near maximum capabilities on a daily basis. When a major incident or protracted medical event occurs such as during a significant Haz-Mat incident, our health care system is challenged with "surging" to the next level to manage rapid and sometimes crippling influxes of patients. This presentation will discuss how our multi-disciplinary emergency health care system steps up to meet this potential influx by providing support and resources to help manage the surge of patients and will describe an overview of regional and statewide assets, as well as discuss several actual situations where these assets have been utilized effectively to minimize disruption of patient care. We will also discuss the importance of sharing technical information regarding a released product with the first responders as well as with the "first receivers" in hospital settings.

Evaluation, Management and Dirty Resuscitation of Hazmat/WMD Victims

Einstein Physician Response Group

FM – 6

The history of clinical hazmat/WMD education in the US is that a series of facts are presented in a course but there is no concept of operations or strategic plan for how to operationalize this material and build a useful plan to save lives. In this lecture, we will present a brief overview of the main categories of toxicants presented in the University of Arizona Advanced Hazardous Materials Life Support course. Then, we will discuss triage and —dirty resuscitation,|| the management of contaminated victims in the warm zone.

Hollywood Special Effects Right Out Of Your Kitchen Cupboard

John Matechen

FM – 7

So, what does it take to fool an audience? Like any great illusion it takes a bit of misdirection, interaction, and a few simple props to lead the senses of an audience to believe anything. It's not what they see, it is what they **think** they see. First Responders, Educators, the Military, and

Healthcare Professionals have realized the importance of simulations that mimic real world situations when training medical students, instructors, and other professionals to improve their response time and patient outcomes. An increase in recent emergency and military scenario simulations have helped medical providers in major medical centers around the country to Middle East war zones to replicate the types of injuries and practice appropriate responses that they will most likely encounter in the field. Outcomes from situational training exercises result in better trained individuals due to their heightened ability to make rapid decisions often in life and death assessments and in very chaotic situations.

This seminar will show you how to create make-up effects that look as though they came off the sets of CSI, NCIS, or Nip/Tuck by combining a quick trip to a local costume shop with what is in the typical kitchen cupboard. Cuts, scrapes, contusions, burns, and more will be covered in the session along with live demonstrations showing their creation and application.

Basic Awareness for Hazmat Responders at Railroad Incidents

William (Bill) Oertly

FM – 8

Basic Awareness for Hazmat Responders at Railroad Incidents will cover the following: RR organization and response to incidents, safety on railroads, Railroad paperwork, Railroad Equipment to include: Locomotives, Freight Cars (including tank cars) and Intermodal Equipment.

Basic CAMEO – Not Just Hazmat Anymore [3 hours]

Al Finklestein

FM – 9

This class will introduce to, and familiarize participants with the CAMEO Suite, free software available from USEPA and NOAA. There are 4 programs in the suite, CAMEO, CAMEO Chemicals, ALOHA, and MARPLOT. The session will explain installation and usage practices for the programs. The objectives for the class will be the ability to install the software, enter some necessary data, and how to use the programs to assist in emergency planning for different types of events. Bringing an agency or personal laptop for this session is advisable. If you are unable to bring a computer, please contact Ms. Carol Adams at President@9-1-1.org as she may be able to assist with a computer for the class. You must have administrative rights on the computer to successfully install the programs and data. CDs with the program installers and associated materials will be available at the class for you to keep.

[Please bring laptops if available, for use during practical applications]

MacGyver Gas Detection

Chris Wrenn

FM – 10

MacGyver Gas Detection

(Getting out of “sticky” situations using the sensitivities and cross-sensitivities of common sensors)

This course reviews the sensitivities and cross-sensitivities of the most common sensors used in confined space entry and HazMat including LEL, O₂, CO, H₂S & PID. It uses simple examples of real-life incidents to show how sensors can be “fooled” and how to interpret this “incorrect” data and reach a correct conclusion using all of the clues present from the scene and from the sensors available. It also discusses how to use your “normal” sensors in abnormal situations. Additional discussion points include:

- LEL Sensor Theory
- Electrochemical Sensor Theory
- How understanding sensor specifications can help you from saying “stupid meter!”
- Understand electrochemical sensor cross sensitivity
- Understand how to interpret sensor output and cross reference it with other clues to reach a correct conclusion

So You Wanna Be a Pennsylvania State Fire Academy Instructor ???

William P. (Bill) Ruth

FM – 11

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***Friday
Session #2
1300-1430***

Peroxide Based Explosives

Gene Carlson

FA – 1

Peroxide based explosives are the weapons of choice for terrorists and suicide bombers. Responders to WMD events need a background in what these products are and how they react. To enhance responder safety, actions for detecting and what to do when finding peroxide explosives is essential. This program also includes information on condensed hydrogen peroxide devices. Come and learn what to do and what not to do.

Hazmat IQ –First Responder Offensive Training [3 hours]

Joe Gorman

FA – 2

Course Description: The HazMatIQ FRO system incorporates the proven Above the line /Below the Line size-up tool while instructing First Responders equipped with a handful of instruments, whether they can safely enter the Hot Zone to attempt a rescues. Current FRO training mandates that responders identify, isolate, deny entry and call for a Hazmat Team. This training also prohibits First Responders from entering the hot zone even when there is a rescue to be made. HazMatIQ FRO trains responders to safely enter the hot zone to make Line of Sight Rescue. This is accomplished by teaching responders how to use and understand meters (Radiation meter, 4-gas meter and Temperature Gun) and reagent papers (pH and F papers). This equipment assures their safety when they choose to enter the hot zone to attempt a

rescue. The 2008 NFPA 472 Standard clearly addresses and permits this critical task in its Mission Specific Competencies.

NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapon of Mass Destruction Incidents, 2008 Edition

6.8 Mission-Specific Competencies: Victim Rescue/Recovery

6.8.1.1.1 *The operations level responder assigned to perform victim rescue/recovery shall be that*

person, competent at the operations level, who is assigned to rescue and/or recover exposed and contaminated victims at hazardous materials/WMD incidents.

6.8.1.1.3 *The operations level responder assigned to perform victim rescue/recovery at hazardous materials/WMD incidents shall operate under the guidance of a hazardous materials technician, an allied professional, or standard operating procedures.*

6.8.1.1.4 *The operations level responder assigned to perform victim rescue/recovery at hazardous materials/WMD incidents shall receive additional training necessary to meet specific needs of the jurisdiction.*

First Response with Wisser, CHEMM and REMM [3 hours]

Chief Richard Brooks, III

FA – 3

New and experienced users of WISER will be trained on its latest tools and capabilities, including WISER's new chemical reactivity feature. First Responders will be educated about the capabilities of REMM and CHEMM, including how these tools can help first responders plan and respond to mass casualty radiation or chemical incidents. This interactive course will allow first responders, as a group, to discuss WISER, REMM, and CHEMM to learn from each other, and to provide direct feedback to the creators of these applications. Chief Brooks is extremely familiar with how NLM's tools can be presented to the PAHMT session attendees to maximize learning and discussion. This will include a series of PowerPoint slides describing each tool, leading to the presentation of the scenarios showing the latest features of each tool. A key objective will be to allow sufficient time to allow the attendees to discuss these tools with each other and with the developers, including suggesting opportunities for enhancements of these NLM tools

Ethanol Emergencies ... Coming Soon to a Theater Near You ! [3 hours]

Glen Rudner

FA – 4

Participants will learn about ethanol fuel including its use, chemical and physical characteristics, transportation, transfer, and the hazards responders and others should be aware of with its production, distribution, and consumption. Review recently released information regarding ethanol and its effect on currently available flammable liquid firefighting foam concentrates. Interactive discussion and review of the process used in determining resource needs, and developing an action plan to mitigate a spill or fire involving ethanol blended flammable liquids. This session is based upon a training package created through a partnership between the International Association of Fire Chiefs and the Ethanol Emergency Response Coalition.

Response to Highway Emergencies Involving Chemicals [3 hours]

Jack Bailie and Erik Dixon

FA – 5

The program will teach the students about all of the types of highway tankers in use today, while looking closely at all of the valves fittings and appliances used. This program also provides a brief overview on how to deal with various types of emergencies. we will bring the

common response items used while dealing with highway emergencies. A new section I am adding will also speak on just emergencies involving the tractor and issues that arise on these types of incidents.

Medical Support of Law Enforcement and Special Operations Involving Hazardous Materials

Einstein Physician Response Group

FA – 6

Law enforcement agencies are being confronted with numerous potential callouts that involve hazardous materials, including meth labs, chemical suicides, terrorism, and many other incidents. Join Scott Goldstein, DO, FACEP, EMT-T, Chief of the Section of Tactical Medicine, Division of EMS and Disaster Medicine, Department of Emergency Medicine at Albert Einstein Medical Center in Philadelphia, as he presents the scope of this problem along with a special operations medicine approach to address these potentially deadly incidents.

DOT Hazmat Label Evaluations and Risk Assessment [3 hours]

Oliver J. (Jay) Toigo

FA – 7

Objective of this course is to provide examples and properties from each class and divisions in the DOT 14 Chart. The associated risks of each class will also be discussed.

The class will be directly involved by using the DOT chart and the ERG to help establish risk profiles at the appropriate skill level. A brief tabletop scenario involving an Overnight Delivery truck (Delivery trucks are potentially a mixed-bag HAZMAT Incident) with a possibly dangerous mix of materials in the vehicle. We will discuss the risks when faced with known hazardous materials and the possibility of them mixing during the accident scenario? What materials carry the highest risks to health and safety?

National Terrorism Briefing

David (Dave) Conway

FA – 8

Counter-Terrorism Briefing. This National Counter Terrorism Center (NCTC) session will provide an unclassified update on the current range of unconventional threats that are being encountered worldwide.

There is No Such Thing As Nerve Gas Understanding CWAs, their Detection and Decision-Making

Chris Wrenn

FA-9

[3 hours]

This course educates responders about CWAs, what they are, where they come from and the various clues we can use to identify their presence and act accordingly. CWA response is a three step process using location techniques, classification techniques and identification technologies. In this course responders will learn how to properly layer these techniques to quickly make effective decisions. At the completion of this course, the students will :

- Understand the nature of CWAs and that there is no such thing as —Nerve or Mustard Gas
- Understand all of the clues and techniques for locating, classifying and identifying CWAs

- Demonstrate an understanding on how physical and biological clues along with location, classification and identification devices are used in a synergistic manner to effectively make decisions in a potential CWA incident.

The A-B-C's of Chlorine Kits

Gene Carlson

FA – 10

This presentation outlines what should be given to new students before they are introduced to the actual kits. It is the "Tell 'em what you are going to tell them" portion of a complete course. The basics are well illustrated and some "tricks of the trade" thrown into the mix. It can also be used as a refresher for senior students to review their knowledge when time is limited, or as a review before taking an annual competency test.

A Population Approach to Hazmat / WMD Incidents

Einstein Physician Response Group

FA – 11

Few EMS providers or chief officers in the fire service are trained to evaluate a hazmat incident from the perspective of population health or public health, i.e. how will a potential incident affect the broader community rather than just a few victims. The study of population health and its relationship to emergency services involves knowledge of epidemiology, disaster medicine, occupational medicine, emergency management and related disciplines. Application of basic principles taught within these disciplines will aid you the next time you approach a large scale hazmat or potential WMD incident. (Note: this is not a clinical lecture and material taught here can be understood by those at the EMT-B level of training.)

Cryogenic Gases

Ted Deecke

FA – 12

This course is an introduction to understanding the unique properties of cryogenic gases, their containers, and delivery systems. Items discussed will include the hazards of cryogenic gases, chemistry of cryogenics, an understanding of transportation and storage of cryogenic gases, and their delivery systems.

Advanced CAMEO ~ Practical Applications

Al Finklestein

FA – 13

This class will familiarize participants with the practical applications of the CAMEO Suite, free software available from USEPA and NOAA. There are 4 programs in the suite, CAMEO, CAMEO Chemicals, ALOHA, and MARPLOT. This program will engage students by using their laptops to demonstrate how to use the programs to assist in emergency planning for different types of events. Bringing an agency or personal laptop for this session is advisable. If you are unable to bring a computer, please contact Ms. Carol Adams at President@9-1-1.org as she may be able to assist with a computer for the class. You must have administrative rights on the computer to successfully install the programs and data. CDs with the program installers and associated materials will be available at the class for you to keep.

[Please bring laptops if available, for use during practical applications]

So You Wanna Be a Pennsylvania State Fire Academy Instructor ???

FA – 14

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The Hard, Cold Reality of Chemical Suicide

Tom Glass, Steve McManus and Mike Rampulla

SM – 1

Chemical assisted suicides are becoming common in the United States and are posing a tremendous safety issue to first responder agencies. In 2010, there were four such incidents in Pennsylvania. This Instructor Team will share various events and statistical information that provides insight to emergency response efforts, at a most critical time in our Nation's history. These case studies will reveal the —Hard, Cold Reality of Chemical Suicidell, emergency response challenges, successes, and lessons learned.

Marcellus Shale Demystified

Ralph Tijenera

SM – 2

This presentation will address the various types of hazards associated with the Oil & Gas Industry in the shale gas development. Highlighted will be the various types of chemicals, explosives and radioactive components in specialized tools. The reality of emergency response along with the expectations of first responders upon arrival to a well site. Addressed will also be a review of the emergency responder subcommittee's recommendations made to the Governor's office by the Marcellus Shale Advisory Committee on Shale Development in Pennsylvania.

Managing "Hour One" of the Response

Greg Noll

SM - 3

This session will describe the critical success factors in managing the first hour of a hazmat incident. Emphasis will be placed upon the tactical functions of site management and control, problem identification, and hazard and risk assessment.

Highway Cargo Tanks: Emergency Response and Tactical Considerations

William (Bill) Hand

SM –4

Highway cargo tank incidents are one of the most frequently encountered types of hazardous materials emergencies. Bill Hand will draw on his long career as a member of the Houston Fire

Department Hazardous Materials Response Team to provide actual case histories of highway cargo tank incidents for the students to assess and make tactical decisions. This will be an interactive workshop and students will have ample opportunity to make emergency response decisions. Highway Cargo Tank Features (NFPA 472) Hazard and Risk Assessment Techniques Damage Assessment Techniques Lessons Learned from actual incidents. Interactive discussions will include Highway Cargo Tank Features (NFPA 472) Hazard and Risk Assessment Techniques Damage Assessment Techniques Lessons Learned from actual incidents. The features of all the different types of highway cargo tanks will be discussed followed by an interactive workshop discussion with ample opportunity for students to be involved in assessing damage and other factors involved in both common and uncommon highway cargo tank incidents. This workshop features actual case studies involving the different types of cargo tanks and will give the student a chance to apply their learning based on the resources and training in their jurisdictions.

TriNitro WHAT ???

Ted Deecke

SM-5

An introduction to reactive and explosive chemicals. This course is an introduction to recognizing and identifying the threats posed to hazmat responders when encountering reactive chemicals during an emergency. Items discussed will include: explosive chemicals, air and water reactive materials, peroxide forming compounds, picric acid, and reactive metals.

Heat Stress and Its Effects on Hazardous Materials Response Team Members

Einstein Physician Response Group

SM – 6

What is the difference between heat cramps, heat exhaustion, and heat stroke? What are effective oral hydration strategies to keep hazmat team members in the field rather than on the bench? When is aggressive IV rehydration indicated at an emergency incident? Heat stress is the number one factor which leads to consumption of human resources at an emergency incident. For answers to these questions and more and to learn how you can prevent consumption of your resource pool from heat stress at the next hazmat incident, join faculty from the Center for Special Operations and Training at Albert Einstein Medical Center in Philadelphia as they explain everything you ever wanted to know about responder physiology, heat stress and mitigation techniques in emergency services.

Small Spills – It's Not the Big One, but it's Still One !

Bill Cullen and Keith Silverman

SM – 7

Small spills and releases are common occurrences but responding to them can be confusing and challenging. What amount of material constitutes a small spill? Is it always the same or can the criteria change? Is the material hazardous or potentially hazardous in any capacity? The better we understand how to size-up small spills, the more prepared we will be to mitigate them. This workshop will discuss response options to several types of common small spills with a focus on situational assessment, risk-based decision-making, and responder safety.

The Air You Breathe ... Could Be Your Last !

Larry Johnson

SM – 8

[3 hours]

How important is the air you breathe when responding to an incident? Do you really understand the inner workings of the air monitoring instruments on your Hazmat truck? This air monitoring course will help you to better understand the benefits and limitations of various air monitoring tools/instruments, interpreting associated data and how to effectively apply the data obtained. How will the data help you to identify the establishment of emergency response zones and respiratory requirements? We will discuss calibration —bump|| check techniques, quality control requirements, and instrument response and recovery times. The importance of understanding vapor density, vapor pressure and specific gravity, can and will impact your emergency response decisions and overall safety of emergency response personnel. What level of understanding do you have regarding pH and neutralization? What do you really know about interferences and cross contamination? Can you —burn|| a monitoring instrument? You will be armed with information to help you and your team, effectively use air monitoring tools and resources. With an increased knowledge base and candid discussion, you will be positioned to understand the concept of "**The Air You Breathe...Could Be Your Last!**"

Thinking the Unthinkable... Nuclear Weapons

Jeffery Williams

SM – 9

The world of today has a number of new threats and hazards for first responders to consider. One of the most horrifying involves the use of nuclear weapons. While planning to prevent nuclear weapons from falling into terrorist hands occurs at many levels, planning for consequences and response receives less attention. This presentation will look at the entire nuclear weapons effect issue from the perspective of the first responder. This will include what nuclear weapons are (and what they are not), what their effects are, and what the impact would be to first responders immediately and downrange of the event. The goal is to breach a sensational topic in a manner that allows responders to consider what appropriate levels and types of response would be to the ultimate unthinkable event.

Storage Tank Design and Construction

Greg Noll

SM – 10

Storage Tank Design and Construction. Session will provide an overview of the major design and construction features of aboveground flammable liquid storage tanks, including cone roof, open floating roof, and covered floating roof tanks. Ancillary fire and spill protection issues will also be discussed, including tank venting, diking, and piping issues.

Cryogenic Gases and Containers

Ted Deecke

SM – 11

This course is an introduction to understanding the unique properties of cryogenic gases, their containers, and delivery systems. Items discussed will include the hazards of cryogenic gases, chemistry of cryogenics, an understanding of transportation and storage of cryogenic gases, and their delivery systems.

Hazmat Responder Rehabilitation and Medical Monitoring: A Primer

Einstein Physician Response Group

SM – 12

Firefighter rehabilitation and medical monitoring has been an accepted part of the fire service for the last 15 years. NFPA 1584 defines several standards and practices relevant to this area, but they are largely focused on firefighting operations. While no lecture replaces standardized education in rehab available from CSOT (4, 8 and 16 hour courses), we are proud to offer one of the few introductions to hazmat response team rehabilitation and medical monitoring. During this lecture,

we will cover topics relevant to your practice, including how to perform a hazmat incident medical screening exam on your personnel, the science behind cooling mechanisms, proper hydration strategies and legal issues regarding delivery of rehab services at a scene.

Responding to Laboratory Emergencies

Bill Cullen and Keith Silverman

SM – 13

Emergency responses to laboratories can be extremely challenging. Thoughts of wild-haired scientists in white lab coats only add to the uncertainty and uncertainty creates anxiety. Hazardous chemicals, biologicals, radioactive materials, specialty gases, and complicated laboratory apparatus and instrumentation all pose special challenges. Additionally, the physical layout of laboratory facilities further complicates the response. This workshop, given by two fire chiefs, with over fifty-five years of combined experience working in and around the laboratory environment, will help take the mystery out of laboratory emergency response by enhancing situational assessment, risk-based decision-making, and responder safety.

So You Wanna Be a Pennsylvania State Fire Academy Instructor ???

William P. (Bill) Ruth

SM – 14

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Saturday afternoon

Session #6

1230 - 1400

Advanced Forward Medical Care in the HazMat Environment

Mark Pinchalk and Micha C. Campbell

SA – 1

This program will discuss the concept of operations for providing limited Advanced Life Support care in the Hot and Warm Zones of a hazardous materials incident. In addition medical support for cold zone operations, including pre and post entry screening, rehabilitation support and HazMat specific antidotes will be covered. The concept and role of specialized HazMat medical support teams will also be discussed.

First Responder Compressed Gas Safety

Eugene Ngai

SA – 2

First Responders will be provided with an introduction to the potential hazards of common compressed gases. At home and in the workplace, people routinely use a variety of compressed gases. Under ordinary conditions these are very safe. In the event of a fire, motor vehicle accident or other incident, these gases can however present a significant hazard. This class is meant to educate the first responders to these hazards and what could possibly be done to mitigate them. Gases that will be discussed include :

- Acetylene
- Ammonia
- Carbon Dioxide
- Helium
- Hydrogen
- Nitrous Oxide
- Oxygen
- Propane

FATAL Hazmat Response

Chester County (Pennsylvania) Hazmat Team Officers

SA – 3

Case Study: Fatal Hazmat Response, Chester County, PA Officers of the Chester County Hazmat Team will present this informative and interactive session. This real life response involving a civilian fatality challenged even the most experienced hazmat responders. The presenters will review the response from initial dispatch to final termination, discussing the challenges presented along the way. What did initial information provide to the responders? How did findings along the way change the direction of the response? What information did the monitoring devices provide? Did the monitoring equipment tell the whole story? How did the information discovered by the entry team help to piece together the puzzle? How did 'interpretation' of the information provided by the monitoring equipment help change the response tactics? What could be done differently? The presentation is designed to be interactive, thought provoking and a learning experience for responders - from the "Newbie" to Seasoned Veterans.

Selecting Chemical Protective Garments

Dr. James P. (Jim) Zeigler

SA – 4

Selection of chemical protective clothing involves more than picking a fabric. Garment design and seams are equally important. And today, there is a wide range of garment and fabric choices from which to select. This seminar reviews the basis of chemical protective suit selection by understanding the source of the performance data, the performance differences between garment designs and how to apply that information during garment selection.

Mixin' It Up – An Explosive Response to VBIED's and RDD's

Al Wickline and Bill Wojnar

SA – 5

[3 hours]

As a Hazardous Materials Responder, whether you encounter —Vehicle Born Improvised Explosive Devices (VBIED's) or – Radiological Dispersion Devices (RDD's) , this course offering will combine guiding principles that can assist in enhancing your understanding of various explosive devices and strategies for operational response.

World renowned case studies will be presented that candidly describe potential —Threat Groups, types of materials used and —Trojan Horse concepts. Whether Domestic or International, best practices must be clearly defined to enhance emergency response capabilities which include pre- incident planning, incident response and post incident planning considerations.

Additional information will be conveyed to assist in understanding the difference between Terrorist or Criminal explosive devices. Other discussion points will include safety, health and environmental hazards such as fire, smoke, shrapnel (projectile objects), chemicals, and secondary devices. Incident Command, Chain of Custody and decontamination considerations will be addressed based on incident size and scope, device designs, type and quantity of materials used and dispersion patterns. This interactive session will also include the opportunity to "get you in the mix" through discussion and physically handling shrapnel from various incidents and test sites.

Principles of Hazardous Materials Toxicology

Einstein Physician Response Group

SA – 6

This lecture will be a 3-hour review of general principles found in the University of Arizona's Advanced Hazmat Life Support course. Topics covered will include antidotes available for common toxicants, therapies approved by the State of Pennsylvania and the difference between supportive care and directed resuscitation strategies for common residential and commercial hazmat incidents. While the approach to the lecture may be understood by hazmat EMS responders at the EMT-B level, the clinical concepts taught are primarily at the EMT-P level.

Unified Command: Effective Coordination between Industry and Emergency Response Agencies

Clyde Snyder and Glen Wagner

SA – 7

Local Emergency Responders often are called to chemical releases in industrial facilities throughout the Commonwealth. These facilities use chemicals in their everyday manufacturing processes. Industrial manufacturing includes anything from material manufacturing, chemical processing to food processing. All of which use hazardous materials in the production process.

The Hazardous Waste Operations and Emergency Response Regulation OSHA 29 CFR 1910.120 (commonly called HAZWOPER) requires industry to have plans that outline how they will respond, in some measure, to emergency releases of hazardous materials. In many instances a disconnect exists between the local emergency response agencies and their industry counter parts. The purpose of this table top exercise is to familiarize participants with the information they should know to better facilitate a unified response. In this exercise the industrial facility is a food processing plant which uses large amounts of anhydrous ammonia and other chemicals which, if released, could pose a hazard to employees and the community. This table top exercise emphasizes the role the Industrial Facility Response Team plays along with local government response agencies.

In this exercise the player's actions will be evaluated against provided response plans and capabilities. It requires participants to respond to a train derailment that involves the facility and the surrounding community. The interoperability between industry and the local response units will be emphasized. The goal of this exercise is give both groups an appreciation of each other's situation and how they can work together to achieve the desired outcome.

Session #7

1430 - 1600

Hazmat “By the Numbers”

Chris Hawley

SA – 8

Have you ever wondered what the term vapor pressure actually means? In your HazMat technician class you may have written down the definition, and discussed it, but were you actually taught how to apply this term? Vapor pressure, along with many other —terms that relate to chemical and physical properties this session focuses, not only on what the words mean, but more importantly how they can impact your health and safety. By truly understanding some simple terms responders can make PPE decisions, isolation and evacuation decisions and determine the severity of the event.

Compressed Gas: Emergency Response Fundamentals

Eugene Ngai

SA – 9

A first responder can encounter wide variety of compressed gases in common use by the public, agricultural, medical and commercial industries. Gases such as Acetylene, Ammonia, Propane, Nitrous Oxide, liquid Nitrogen were addressed in the First Responder Compressed Gas Safety class.

The more exotic compressed gases (specialty gases) are found at chemical facilities, transportation and universities. These can have unique characteristics such as pyrophoricity, water reactivity, toxicity, etc. Very often a First Responder is overwhelmed with the technical information available on a material. How do they sort through this information and use what is meaningful?

The Compressed Gas ER Fundamentals class is to provide the First Responder with a working knowledge of compressed gas physical and chemical behavior that can affect the incident assessment or mitigation plan. The student will get a basic understanding of properties such as:

- Critical Temperature
- Vapor Density
- Liquid Density
- Flammability Limits
- Boiling Point
- Vapor Pressure
- Latent Heat of Vaporization

Responding to Corrosive Emergencies

Barry Lindley

SA – 10

This class is designed to teach the first responder how to implement a response to hazardous materials incidents involving corrosive materials. This class meets NFPA 472, and 29CFR1910.120(q) requirements. Upon completion, students will be able to distinguish between acids and bases; determine neutralizations of corrosive materials; discuss the difference between fuming acids and normal acids and the decontamination techniques for incidents involving corrosives.

NFPA 1911, 1992 and 1994 - I am confused !

Dr. James P. (Jim) Zeigler

SA – 11

This seminar will address the latest changes in the NFPA HazMat Clothing Standards (1991, 1992, 1994). This seminar will review the purpose and contents of these important documents, the proposed changes, the process used to modify these standards and how first responders can participate in that process.

So You Wanna Be a Pennsylvania State Fire Academy Instructor

William P. (Bill) Ruth

SA – 12

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***Sunday
Session #8
0830 - 1200***

(Breakfast begins promptly at 8:30am)

The Israeli Phenomenon:

Everything You Always Wanted to Know ... YET, Were Afraid To Ask !

Glen Rudner

SP -10

During the past 10 years, the country of Israel has been under assault by their enemies. They have seen the use of suicide bombings and shootings as a very accurate tool of those enemies. This program will take the participant through how the Israeli's have dealt with and prepared for the each wave. It will discuss the responsibilities of each emergency responder and their respective organization as the events unfold each and everyday. It shows how their system works and how we can make some of it work for us.

SUNDAY BREAKFAST, TERRORISM BRIEFING, DOOR PRIZES AND CLOSING CEREMONY

We look forward to seeing you in Harrisburg...
Safe travels!



1ST ANNUAL

PAHMT - STATEWIDE HAZMAT PHOTO CONTEST

“A picture is worth a thousand words” refers to the idea that a complex idea can be conveyed with just a single still image. Photos speak one thousand words. PAHMT is hosting the 1st Annual Statewide Hazmat Photo Contest.

Photo submissions can include hazmat exercises, actual response or just day to day activities. This competition is designed for -recreational (amateur) photographers. Instructors, Exhibitors, and Conference attendees are encouraged to participate. **Photo submissions must be received no later than Friday, September 30, 2011 at 4:30pm.**

Bring your (3 x 5 , 5 x 7 or 8 ½ x 11) photos to the Registration area at the Harrisburg Community College (HACC) C. Ted Lick – Wildwood Conference Center, and additional directions will be provided. If possible, also provide an electronic version, so the winning photos can be shared via PowerPoint Presentation, during the Awards Banquet on Saturday evening. Conference attendees will cast the winning votes in the following categories:

- 1) **Funniest Picture /Funniest Story (a picture is worth one thousand words)
“Things that make you go ... Hmmmmm” – The HAZMAT Darwin Award**
- 2) **Best Dressed Team**
- 3) **Smallest Response Vehicle**
- 4) **Biggest Response Vehicle**
- 5) **Best Looking “G Rated” Team Mascot**
- 6) **Best Dressed (Most Creative Hazmat Suit)**
 - i. **Team**
 - ii. **Individual**
- 7) **Most Interesting Volunteer Response Vehicle**

Rules:

- **One photo submission per person (Instructors, Exhibitors and Students are encouraged to participate)**
- **Recreational (Amateur) Photographers only. Professional photos will NOT be accepted for submission.**
- **This is a “G” rated audience and photos will be screened by Conference Team for appropriate content.**










NOTE: Photos will not be placed on the website without permission from the owner and persons in the photo. *PAHMT is not responsible for returning your photos.*

Conference Partners

**Pennsylvania Emergency
Management Agency (PEMA)**

Harrisburg Area Community College (HACC)

Exhibitors

-  Action Supply Products, Inc.
-  Alexeter Technologies
-  DuPont Protection Technologies
-  Laurus Systems
-  Minute Man Spills
-  Tetra Tech
-  Totally Absorbent
-  The Fire Store / Witmer Public
Safety / MSA
-  U.S. EPA, Region III

Thank you to our 2011 conference partners, exhibitors and host providers. Without their generous support we would not be able to provide the quality of course offerings, renown instructors, and events that have made the

conference such a success. These sponsors, breakout session hosts and exhibitors continue providing tools and resources to assist in building regional resilience.