2019 — Our 30th Annual Edition
2019 Theme: The Continuing Challenge at 30 — The Places We’ve Been; The Places We’ll Go

The 30th Annual
CONTINUING CHALLENGE
HazMat Emergency Response Workshop

The Nation’s Leading Hazardous Materials Emergency Response Workshop

Please note the one-time date change for this year is

September 24-27, 2019

at the DoubleTree by Hilton Sacramento, California

Online registration opens

June 1, 2019 @https://www.hazmat.org

Our Mission: To provide safe response training for all emergency responders to hazardous materials incidents affecting public health and the environment.
Most state and local hazmat teams in California are not fully trained and equipped to respond to emergencies involving rail transportation of hazardous materials. This session will present incident information, response considerations, advanced intervention techniques, and practical guidance for incidents involving rail transport of hazardous materials commodities including anhydrous ammonia, liquefied petroleum gases, chlorine, and propane. Instructors will also facilitate hands-on exercises with rail modal equipment used to transport these types of commodities and specialized response equipment beyond what state and local teams are issued in order to reinforce concepts learned in the classroom.

The TRANSCAER® California State Team along with the national TRANSCAER® organization, and both Union Pacific Railroad and Burlington Northern Santa Fe Railroad have formulated plans to bring a specially equipped chemical safety train to Sacramento for this year's Continuing Challenge Hazmat Workshop September 24 through 27. This special train equipped with a locomotive and tank car equipped with training domes and valves will provide a unique opportunity for student hands-on training in simulated intervention activities, the use of plugging and patching devices, analyzing opportunities to intercede and stop leaks, and review of safety issues.

Come engage in an opportunity to work with railroads and emergency responders to safely and effectively plan and prepare for an incident should one occur in your jurisdiction. Training will be offered four times – Wednesday afternoon, Thursday morning, Thursday afternoon, and Friday morning. Students should examine the need to include this training in their Workshop class selections. And, it is always a photographers’ paradise.

Prerequisites: Basic ISC training, FRO, and Hazmat Tech training. Hazmat Spec training preferred.
Moving Forward

On behalf of the Continuing Challenge Committee, I want to welcome you to the 30th Annual HazMat Workshop. This year we will be celebrating 30 years of HazMat training. The Curricula Committee has selected over 100 classes for this year's workshop. The class selections include lecture, hands on, and off-site classes to provide you the best training experience possible. The exhibitors will be displaying the latest HazMat equipment, offering training classes, and the governmental agencies will be providing information on how they support HazMat.

The Continuing Challenge General Store will have many items for sale again this year. It is always nice to bring something home to remember the Continuing Challenge experience. Coming to the Continuing Challenge is a time to meet old friends, make new friends, network, and learn from others' experiences. This year's workshop is going to be outstanding. Many outside displays will be present and ThermoMan returns again this year.

Mark your calendar for September 24-27, 2019 and plan to attend the 30th Annual Continuing Challenge HazMat Workshop. We are looking forward to seeing you!

Dennis Smith

Dennis Smith,
Continuing Challenge Committee Chairperson
Fire Chief, (Retired)
Sacramento Fire Department

Please visit our website at https://www.hazmat.org
For better security, Everyone will need to create a new profile. If you enter a cell phone number, we encourage you to use the cell phone number that you will have with you at our Workshop and please pick the correct carrier for your service from the dropdown box. By choosing the correct carrier we will be able to send you a text message letting you know of any class changes, updates for which you are registered, such as student, instructor, or exhibitor. If you need assistance, please email us at info@hazmat.org or call us at (916) 433-1688.

App & Student Survey Information

App

Our app should soon be live. Stay tuned for more information.

Student Surveys

Be sure to fill out the survey information via the link provided on the APP or the Website during the workshop. Your feedback on the surveys helps us continue to provide the best Workshop possible.

Student class survey information will be reviewed by the Continuing Challenge HazMat Committee and provided to each instructor.
## Workshop At-A-Glance

<table>
<thead>
<tr>
<th>Monday</th>
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History & Exhibitor Information

**KEYNOTE SPEAKERS THROUGH THE YEARS**

1990  John Eversole  Chicago Fire Department
1991  Capt. Michael Callan  Wallingford Fire Department
1992  Ron Coleman  California State Fire Marshal
1993  Greg Noll  Reading Fire Department, Pennsylvania
1994  Mr. Al Smith  Law Firm of McRae, Secrest, and Fox Atlanta, Georgia
1995  Gordon Graham  California Highway Patrol
1996  Cliff Harvison  President, National Tank Truck Carriers, Inc.
1997  Commander Shane Ishiki  Commanding Officer National Strike Team, U.S. Coast Guard
1998  Robert Born  Special Agent FBI
1999  Mike Callan  Fire Training Associates
2000  Dwight Williams  Williams Fire Suppression
2001  Michael Pritchard  Motivational Speaker
2002  Phil McArdle  New York City Fire Department
2003  Harry Cusick  Philadelphia Fire Department
2004  Michael Callan  Callan and Company Response Training
2005  R. David Paulson  Director U.S. Fire Administration
2006  James Lee Witt  James Lee Witt Associates
2007  Rem Gaade  Toronto Fire Department
2008  Matt Krimsy  San Francisco Police Department
2009  Michael Callan  Callan and Company Response Training
2010  Chief Richard Brooks  Director of Emergency Services Cecil County Maryland
2011  Nick Vent  County of San Diego
2012  Harold Schapelhouman  Menlo Park Fire Protection District
2013  Mark Neveau  Federal Coordinating Officer FEMA
2014  Michael Callan  Callan and Company Response Training
2015  Timothy Butters  USDOT/Pipeline and Hazardous Materials Safety Administration
2016  Michael Pritchard  Motivational Speaker
2017  Jamie Hyneman  American Special Effects Expert
2018  Matt Krimsy  Cal OES, California Specialized Training Institute (CSTI)
2019  Michael Callan  Callan and Company Response Training

**Exhibitor Index** (as of May 17, 2019)

20/20 BIO RESPONSE  CHEMTREC/TRANSCHER  Mallory Safety
908 Devices  CloudMinds Technology, Inc.  NRC Environmental Services, Inc.
Agilent Technologies  Curtis  ORTEC
AMETEK Arizona Instruments  DuPont Personal Protection  PROENGIN, Inc.
AristaTek  Emergency Vehicle Group, Inc.  Skedco, Inc.
California Department of Public Health  FarrWest  State Fire Training
California Department of Toxic Substances Control  Gases 101 LLC  Ten West Towing & Environmental
California Governor’s Office of Emergency Services (Cal OES)  Gasmet Technologies, Inc.  ThermoMan
California Department of Transportation Hazmat Branch  Kappler, Inc.
Register online at https://www.hazmat.org
### Tuesday

**Full day classes, full of learning and hands-on involvement**

#### Elements of a Course Listing

<table>
<thead>
<tr>
<th>Course Number &amp; Title</th>
<th>Instructor(s)</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>Z801 NBC Terrorism: The First 15 Minutes</td>
<td>Matt Krimsky, John Cavanaugh</td>
<td>This class has been developed to prepare First Responders in dealing more effectively and efficiently with a potential WMD-terrorism incident. This 8-hour class is open specifically to Law, Fire, EMS, and other affiliate agency representatives with a designated role as first responders in the first 15 minutes of a WMD/terrorism event. This program has been updated and improved to include hands-on exercises to better train participants to deal with a real world event. <em>Intermediate.</em></td>
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<tr>
<td>Z803 Tactical Chemistry for Emergency Responders</td>
<td>Dana von Kolen, Chris Weber</td>
<td>We cover the chemistry of hazardous materials with live demonstrations, hands-on activities, and chemical identification exercises using a variety of air monitoring and sampling identification equipment including pH paper, oxidizer paper, multi-gas instruments, PID, Raman, FTIR spectrometers, and GC-MS. Students will get hands-on experience with many different chemicals during the workshop. Using chemical trends illustrated in our Periodic Table of the Compounds™ we show how easy it is to get useful and actionable information from just the name of the chemical. <em>Intermediate.</em></td>
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<tr>
<td>Z804 HAZWOPER Refresher</td>
<td>Cris Aguirre</td>
<td>DrugIQ prepares responders and investigators to implement risk-based response tactics to safely respond to incidents involving synthetic opioids, including clandestine labs. The course is 50% hands-on, with students gaining firsthand experience operating several types of synthetic opioid clandestine labs, and performing detection and identification of synthetic opioids using actual fentanyl analogs. <em>Intermediate.</em></td>
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<tr>
<td>Z805 Get Wet. Classify, Identify and Verify using Wet Chemistry with the Hazcat Kit</td>
<td>Alan Jensen</td>
<td>Wet Chemistry is your best tool for assessing the Hazard Classifications and for determining the compatibility of hazardous wastes prior to bulking. Hazcat’s system is your best tool for classifying, identifying and verifying hazardous wastes. Learn a strategy to identify the components of commercial formulations and mixed wastes. Attendees will use the new HazCat 2.0.1 System. You can learn the system in one day; and if you already know your stuff, here is an opportunity to see what is on the horizon for Field ID of unknown substances. <em>Basic.</em></td>
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<tr>
<td>Z806 Efficiently Deploying Hazmat Resources</td>
<td>Benjamin Herskovitz</td>
<td>Efficiency=Speed x Accuracy. All speed and zero accuracy makes Johnny Responder sloppy. This session’s goal is to explore techniques to maximize efficiency. A classroom portion will address the how-to’s of preparing your Decon, Suit-up, and Equipment areas for quick and correct deployment. During the practical portion, practice setting up. Then, try again, increasing efficiency each time. What if you could safely go from team arrival to ready-for-entry in about 10 minutes (without running)? Our fastest time caught on camera is just under 6 minutes. What will your time be? <em>Basic. Open Mind, Willingness to work, Friendly Competitive Spirit.</em></td>
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<tr>
<td>Z807 Basic Gas Detection</td>
<td>Sam Summers, Ken Hayes</td>
<td>Teaching the newer (and even the seasoned) Hazmat Technician the basics of gas detection as it pertains to direct read instruments. How does my detector work, what I can and cannot do with my detector, (or the do’s and dont’s of air monitoring. The course will cover sensor technology, including e-chem (including Duo-Tox), Cat bead, metal Oxide, and P.I.D. The course will also cover sensor poisoning and cross-sensitivity. <em>Basic.</em></td>
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<tr>
<td>Z810 HAZWOPER Refresher, Waste Site Remediation</td>
<td>Kenneth R. Beutler</td>
<td>This training is intended for workers who need to refresh an existing 24 or 40-hour HAZWOPER certification, designed to provide those who work on hazardous waste sites, including regulators at all levels of government, with an overview of the hazards associated with hazardous waste site remediation. Those who complete the course will have a greater awareness of the hazards they may encounter while conducting contractor oversight, perform sampling/monitoring activities and other duties associated with hazardous waste site work. This training is provided in accordance to CCR 1910.120(e)(8) and equivalent state regulations. <em>Basic. Must have successfully completed HAZWOPER 24-Hour or 40-Hour training.</em></td>
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<tr>
<td>Z811 SCBA Visual Inspection</td>
<td>Myles Tenbroeck</td>
<td>This certification course teaches the basics of conducting the annual visual inspections of solid wall and composite SCUBA and SCBA cylinders. The 6–8 hour course is suited for those new to visual inspection as well as those who...</td>
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have been inspecting without formal training through its wide range of inspection subjects including damage limits, neck cracking, and laws affecting inspectors. Additionally, this course meets the OSHA and DOT requirements for employee HAZMAT training. Previously certified inspectors may attend this full course under the VCIR for re-qualification. Participants receive certification as Visual Cylinder Inspectors upon course completion.

**Basic.**

**Z812** One Plan Readiness for Dealing With Ammonia Emergencies

Gary Smith, Rick Williams

The first challenge of an ammonia emergency is to deal with life safety concerns for those escaping or trapped in an ammonia release. The course will provide insight and skills to engage initial attack and sustained response to accomplish critical tasks to confine, contain, and control risk and threat challenges. The training will provide insight on how the fire incident commander may integrate command with industrial plant command team leaders to judge hazards, manage risks, and prepare for the threats of ammonia. Emphasis will be placed on the importance of how to accomplish emergency shutdown, rescue, decontamination, and medical care.

**Intermediate.** Attendees should have the capacity to understand basic hazmat terms, incident command functions, and a willingness to understand and assimilate factual information associated with the hazards, risks, and threats of ammonia to the life safety challenges associated with the first 30 minutes of an emergency. Students should be aware of pre-entry readiness needed for a hazmat entry team who are setting up to enter a danger area (with proper PPE) to confine, contain, and/or control an ammonia release.

**Z813** Everything You Wanted to Know About Cargo Tanks But Did Not Know How to Ask: An Engineer’s Perspective

Paul Horgan

Course covers the design and construction details for all U.S. DOT specification cargo tanks as they pertain to the safety features built into these hazardous materials transportation cargo tanks. It addresses the limitations of each cargo tank design and construction as they pertain to emergency response to accidents involving each of the cargo tanks designs. Overview of considerations to be addressed while preparing for and responding to cargo tank incidents.

**Intermediate.**

**Z814** Environmental Health Training in Emergency Response (EHTER) Awareness Level

Sauda Yerabati, Marcy Barnett

This course is designed for Environmental Health, Public Health, Hazmat and allied professionals assigned to disaster response and community recovery operations. Presentations will familiarize participants with the methods and objectives of disaster operations related to responder safety, mass feeding operations, drinking water supplies, shelter sanitation, debris management, and hazardous materials. The role of the Environmental Health Specialist related to emergency management will be discussed.

**Intermediate.**

**Z815** Live Propane Fire/Propane Emergency

Rob Scott

The WPGA Live Fire Training school is self-contained. Certified, experienced WPGA firefighters teach the course. We bring the propane tank and all required equipment to train the local fire departments. Each course takes about three hours; this session covers propane’s combustion characteristics, system safeguards, valving, and firefighting technique information. The Propane Emergency Class is a comprehensive training program that has been adopted by 27 state firefighter training agencies and propane marketers. It is designed to help emergency responders develop the skills necessary to manage a propane emergency in transportation or at fixed facilities.

**Basic.** This class is offsite. Students will be transported to and from the location.

Please note: the one-time date change for The Continuing Challenge HazMat Workshop is September 23-27, 2019 This is the last week of September 2019
Wednesday Morning

Opening Ceremonies 7:30-9:30

Keynote Speaker
Michael Callan

Michael Callan is a 42 year veteran of the Fire Service. He served as a Captain with the Wallingford, Connecticut Fire Department for 20 years. Mr. Callan has extensive background in hazardous materials response, training emergency responders and industry personnel throughout the United States. He has a trusted and established track record for developing practical emergency response plans and training programs for industries and public safety professionals. Mr. Callan has keynoted and conducted over 1000 national training conferences.

Michael Callan has broad experience in developing and delivering multi-media training programs for industry and public safety. He created and designed Responding to Utility Emergencies online training program for Fire, EMS and Law Enforcement responders. Mr. Callan has authored key national hazardous materials and firefighting training textbooks including: Street Smart HazMat Response, Responding to Electrical Emergencies, and Responding to Natural Gas.

Mr. Callan has conducted hundreds of Train-the-Trainers throughout the United States on multiple subjects. He is also the developer of the widely adopted Propane Emergencies Training Facilitator’s Guide and PowerPoint programs used extensively by the United States Fire Service. The training program has been adopted by more than 30 state training fire schools for propane emergencies. He has conducted energy, pipeline, safety, chemical and emergency response training around the country for Industrial and Municipal HazMat Teams.


Michael Callan has been awarded the John M. Eversole Lifetime Achievement Award which is given annually by the International Association of Fire Chiefs to recognize a living individual who has had an exceptionally distinguished career in the field of hazardous-materials emergency response.

He also received the Norman Y. Mineta Award, given annually by the National Association of State Fire Marshals to honor an individual or team for making a significant contribution to the safety of people, products and materials in transit.

Michael also received the Dieter Heinz Instructor of the Year Award. This prestigious award is given annually at the Hot Zone in Houston, Texas in honor of the landmark Hazardous Materials instructor Dieter Heinz who influenced a generation of responders and instructors throughout the world.

9:30 - 11:30
Break time
in the ExhibitorAreas in conjunction with
Exclusive Exhibitor Time
ThermoMan Demonstration
(Front Parking Lot)

The EXHIBITOR PASSPORT Program

The Continuing Challenge Committee is always looking for ways to improve the workshop and this year is no exception. As you know, the Exhibitors that participate at the Continuing Challenge bring the latest, greatest products to the workshop for your review. It is important that you visit with the Exhibitors so you can see, touch, and handle the products that the Challenge instructors are telling you about.

You will be provided a “passport” in your packet and starting on Wednesday morning you will have a chance to spend time with the Exhibitors. When you visit with the Exhibitors, make sure they stamp your “passport.” Once your passport is filled, turn it in at Registration to be entered into a prize drawing. The drawing will be held during lunch on Friday.
Wednesday Afternoon

4-Hour Classes 1:00-5:00

W451 Hazmat/CBRN Performance Standards & Next Generation PPE
  Robert Eckroade, Jason Horowitz, Bryon Mefford
Hazardous materials emergencies can occur anywhere, involve any number of substances, and result in a diverse set of challenging environmental and operational response conditions (e.g., train derailments, chemical spills from tanker trucks, CBRN terrorism incidents, etc.) First Responders and Hazardous Materials technicians must be adequately and properly protected to respond to these incidents, whether performing life safety or emergency mitigation missions. This educational/demonstrational program will review applicable NFPA standards and next generation PPE for the First Responder to Hazardous materials emergencies.
  Basic.  This class is partially offsite. Students will be transported to and from the location.

W452 Asbestos Exposure: From Fires, Floods, Earthquakes..OH MY Michael Haynes
Emergency Response Professionals, Firefighters and Health/Safety Officers, face increased exposure to asbestos debris and fibers. We now know after every fire, flood or earthquake, Emergency Responders continue to face asbestos hazards in their line of work. An occupational group i.e., ER professionals, Firemen and Law Enforcement continue to overlook the risk of a asbestos exposure, which can lead to illness. Asbestos containing materials or asbestos containing waste materials are encountered at damaged buildings due to demolitions, fires and construction activities, and structural damage from illegal grow/extraction operations are now added to the list.
  Intermediate.

W453 IMS Detection-The Tricks of the Trade Dana von Kolen, Chris Weber
Ion mobility spectrometry (IMS) is a great way to detect low levels of explosives, chemical warfare agents, illicit drugs, and toxic industrial chemicals - but it can be tricky to apply! Come learn how to use your IMS device correctly so it performs for you when you need it. Learn how to sample correctly on scene, how much sample is too much, what a sieve pack does, how to ensure your device is ready to operate in an emergency, when to back out, and much more. We will run actual samples and see the devices in action.
  Basic.

W454 HazMatIQ PropaneIQ (Includes Hands On) Todd Smith
This classroom and hands-on workshop will prepare responders to safely mitigate a propane emergency involving a leaking DOT Propane Cylinder and non-bulk ASME tank. The workshop will focus on vessel assessment and leak countermeasures, for each type of propane cylinder (1-100 lbs) and ASME tanks. Students will be introduced to the Propane Emergency Response A and B Kits. Students will use the propane A and B kit to control simulated propane leaks on PropaneIQ training props. Each student will receive a set of PropaneIQ Smart Charts with a diagram of each propane vessel, along with countermeasures for each leak point.
  Intermediate.

W455 LEAK CITY Sharon McIntyre
Leak City is back with a look at emergency response tactics for today's disasters! A model city that takes up almost an entire room where bad things happen and you can set things right! A scenario-based hands-on program designed to challenge students as they assess and problem solve from their perch above, plus some twists and turns.
  Basic.

W456 An Inside View of Emotional Health in Emergency Services Personnel, An Outsiders Perspective Tina Casola
Emergency responders have their own community, culture, and ways of understanding the world. Because of this, they can jump to the false belief “if you are not one of us, you can’t understand us.” We will discuss rates of depression, OCD, anger, substance abuse, and suicide in both active duty AND retired first responder personnel from this outsider’s perspective. Creating a new program, adjusting a current program or just love to talk about this stuff? JOIN US! We'll discuss, create, cut and paste. Whatever it takes to have you leaving with tangible products that you can take back home!
  Basic.

W457 Basic CAMEO for HazMat Responders Tom Bergman
This course covers the basic operations of the 4 CAMEO Suite programs that are routinely utilized during chemical incidents. Participants will use CAMEO Chemicals to obtain SDS-style information for chemicals along with using the associated Reactivity Worksheet to determine potential reactions between identified chemicals. Participants will use ALOHA to examine potential downwind contamination zones and will plot multiple ALOHA plumes onto the MARPLOT program. Also, participants will review using the CAMEOtm program to manage Facility, Resources, and Special Location information.
  Basic.

W458 Environics ChemPro 100i CWA/ TIC Detector Ken Hayes, Sam Summers
Operational (hands-on) training on the ChemPro 100i. The course will cover the Open Loop IMS technology and the complete Multi-Sensor array on the ChemPro 100i.
  Intermediate. Knowledge of basic gas detection is helpful.

W459 ChemResponder: Closing Old Capability Gaps with New Technology Dante Stellar, Sean Duling
Engage in an interactive tabletop-style session to explore the ChemResponder Network, a free chemical incident information and preparedness tool sponsored by the FEMA CBRN Office. Examine how ChemResponder can close capability gaps identified in historical hazmat operations, and implications for the future of chemical incident response. Then use ChemResponder’s full suite of tools to respond to a scenario at a fictitious chemical storage facility, including SITREPs for rapid information capture and sharing, powerful map tools in a geospatial common-operating picture, and the HAZMAT Incident Database for creating and sharing lessons learned.
  Basic.

W460 Maritime 101 for First Responders Robert Chedsey, Jim Hughes, Michael Coyne
An overview of the Maritime Operating Environment (Facilities, Vessels, and Organizations) for regulatory and emergency personnel; Safety, regulatory, and physical considerations on Ships, Barges, and the waterfront.
  Basic.
Wednesday Afternoon (continued)

W461 The Challenges of Complex Plugging and Patching
Jonathan Poganski, Pat Johnson
This class is designed to mitigate the most commonly used components for emergency and temporary leak stoppage of liquid or bulk hazardous materials due to punctures, gashes, cracks or surface rotting in most of the common containers. Each student will receive hands on training on at least five different kits.
Intermediate. HazMat Technician.

W462 TRANSCEAER - Advanced Response Techniques to Railroad Emergencies Involving HazMat
Scott Etzel, John Ehinger, Todd Lohr
Most state and local hazmat teams in California are not fully trained and equipped to respond to emergencies involving rail transportation of hazardous materials. This session will present advanced technical information, response considerations, and practical guidance for incidents involving rail transport of hazardous materials commodities including anhydrous ammonia, liquefied petroleum gases, chlorine, refrigerated liquid carbon dioxide, and propane. Instructors will also facilitate hands on exercises with rail modal equipment used to transport these types of commodities and specialized response equipment beyond what state and local teams are issued.
Intermediate. Basic ISC training, FRO, and Hazmat Tech training. Hazmat Spec training preferred. This is an offsite class. Students will be transported to and from the location.

W463 Explosives Demo
Sheldon Fung, Lee Witkowski
Explosives Demo put on by the Sacramento Area EOD Unit.
Basic. This is part 1 of II. In order to enroll in this course the student must also take the Explosives and IED course, T211. This is an offsite class. Students will be transported to and from the location.

2 Hour Classes 1:00-2:45

W252 Leadership, Engagement and Making a Difference
Gregory Noll
If your life was a movie, what would the end of the movie be like? When your family and friends sit around the kitchen table and talk about you, what will they say and how will they remember you? Did you leave things better than you found them? In simple terms, did you make a difference? This workshop will look at those “buckets” that directly influence your leadership and ability to engage your peers.
Basic.

2:45-3:15 Afternoon Break in the Exhibitor Area

ThermoMan Demonstration
(Front Parking Lot)

2-Hour Classes 3:15 - 5:00

W251 Hazmat Research-Why We Do What We Do
Alan Finkelstein
This session will demonstrate computer and paper research capabilities using a variety of free and proprietary software as well as books, There will also be a discussion on integration of software research with other modalities.
Basic.

W271 Where’s the water? Is it still wet?
Joseph Crisologo
Water is one of the 16 DHS identified Critical Infrastructures. Without clean, safe, wholesome potable water provided reliably and adequately, a community cannot recover. Clean potable water is critical during emergency response. With this importance and the interdependencies, the course seeks to increase awareness of water - sources, management, threats and vulnerabilities, incident responses, priorities, EWQSK, public notifications, contaminants of concern - current and upcoming, and efforts at increasing resilience. After this course, participants will gain better understanding and appreciation of clean potable water used during responses and ask questions and develop responses with water.
Basic.

W272 Hydrogen Sulfide: Avoid The Ride
James Tate
This 2-hour workshop combines case studies and experience in dealing with actual suicide cases. “Detergent suicide” can be a ‘nasty ride.’ Don’t take that ride. Increase response capabilities and competencies by being more aware of clues surrounding these incidents, and taking the safe, effective actions at scene.
Intermediate. FRO ICS 100-200-700 Technician.

W273 Introduction to LR-x™ Technology
Plume Modeling Software for the 21st Century
Perry Rockvam
LR-x™ is a paradigm shifting mobile (Apple & Android), easy to use cloud-based technology for heightened situational awareness of plumes related to chemical spills. By producing a hazard visualization in near-real time, first response decisions can be made using 3D Wind Field and ALOHA model results in minutes. Integrated with Google maps/Earth, tablet touch controls allow you to easily plot incident locations. LR-x™ provides an initial wind field and plume model and then generate 4 forecast models to facilitate long-term response. The most advanced technology on the market.
Basic.
Register online at https://www.hazmat.org

Wednesday Evening & Thursday Morning

**Bar-B-Que**
**Grand Ballroom**
6:30
Don’t miss the fun, food, and networking!

**6:30 — Grand Ballroom**
“Name that Unknown”

Wednesday evening following the Bar-B-Que
Show your understanding and mastery of Field Chemistry, the core of HazMat, by assembling your team and registering online NOW for the 21st year running of the “Name that Unknown” contest.

Establish your agency as top professionals in this field. Bring whatever wet chemistry identification methods or equipment you will need. We will provide HazCat® Kits (for use during the contest) to all contestants that do not bring their own equipment. The unknowns will consist of 4 solids and 4 liquids.

**Assemble your team and Register NOW!**

Team registration and information are available online at https://www.hazmat.org under the About Us tab.

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**Equipment Demos and Static Equipment Displays are located in the Front Parking Lot**

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**Thursday**
**4-Hour Classes**
**7:30-11:30**

**T411 Making Meth Great Again!**
**Bill Wennhold, Terry Bullock**
At the end of this program the student will understand the chemicals involved, the cooking process, and the hazards associated with manufacturing methamphetamine, homemade explosives, and THC oils.

**Basic.**

**T412 Hazmat Detection Workshop**
**Dana von Kolin, Chris Weber**
The Hazmat Detection Workshop is a comprehensive look at hazardous materials detection, classification, and identification using technology to determine the chemical & physical properties and the hazards of the unknown through a risk based response strategy. We will review basic and advanced technologies while using a systematic approach in analyzing the readings for a safe and effective remediation of the unknown hazard.

**Basic.**

**T413 Street Smart Haz Mat Response**
**Michael Callan**
Street Smart Haz Mat Response provides a practical and sound curriculum for decision-making at any hazardous materials incident. The program provides the participant an experienced, risk-based tool for size up and tactical decisions at a hazardous material event.

**Advanced. Course Objectives:** This training program is of sufficient content to meet OSHA 1910.120 objectives for any haz mat responder. Upon completion, participants will be able to: Understand the need for a safe response to a haz mat incident and perform their duty as it relates to NIMS, Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH). Given a scenario the student acting as the hazardous materials officer will be able to determine emergency scene safety based on current OSHA 1910.120 regulations. Given a scenario the student will be able to determine whether the area is safe, unsafe or imminent dangerous conditions based on OSHA 1910.120 definitions and section (q)(3)vii & viii. The student will be able to identify the six Immediately Dangerous to Life and Health Conditions (IDLH) conditions at an emergency scene and given the scenario determine whether to alter, suspend or terminate the incident. Given a scenario the responder will be able to, based on the chemical, container and/or coordinates (map), implement appropriate emergency operations, determine the risk, select appropriate personal protective equipment (PPE) for the hazards to be encountered and develop an appropriate Incident Action Plan (IAP) for the chemical emergency at the scene.

**Basic.**

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**T414 Leak City**
**Sharon McIntyre**
Leak City is back with a look at emergency response tactics for today’s disasters! A model city that takes up almost an entire room where bad things happen and you can set things right! A scenario-based hands-on program designed to challenge students as they assess and problem solve from their perch above, plus some twists and turns.

**Basic.** A desire to learn new things and share your experience, knowledge, and skills with others.

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Register online at https://www.hazmat.org
Thursday Morning (continued)

T415  Annual HazMat Typed Teams Meeting-Hosted by FIRESCOPE & Cal OES
Pete Jensen
Cal OES is typing HazMat Teams throughout California to support the State’s Fire & Rescue Mutual Aid System. The session will provide an open forum discussion facilitated by the FIRESCOPE Specialist Group and Cal OES, highlighting the benefits, barriers, and overall status of the HMTT Program including the Cal OES supported HazMat Teams. A panel discussion on the guidance, understanding, and rewards of this process will take place. In addition, the FIRESCOPE HazMat Specialist Group will provide an open forum meeting to discuss potential changes to the upcoming edition of the SEL and Q&A.
Intermediate.

T416  CAMEO, WISER, Google Earth, Microsoft Office, and ArcView
Tom Bergman
Have you ever wished you could use CAMEO to create a chemical plume and share that with responders who are using iPhones and Tablets? How about diagram an evacuation area on MARPLOT at the EOC and send it to the field responders as a Google Earth file? 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.
Advanced. Participants must have a basic knowledge of the CAMEO, EXCEL, and WORD programs.
Participants may satisfy the prerequisite by taking the Basic CAMEO for HazMat responders offered at this workshop.

T417  How to conduct a Hazardous Material Commodity Flow Studies
George Lane
Students will learn how to use the HMCFS chemical data to assess the economic and national security impacts of the storage and use of hazardous materials transported by not only maritime, but also by rail, trucking, and pipelines that may interrupt the transportation of commerce.
Basic.

T418  Hazardous Materials Incident Management: The Eight Step Process
Gregory Noll
Given the risks of HM emergency response operations, the overwhelming majority of responder injuries and deaths at HM incidents occur prior to the arrival of HMRT’s. The ability of the IC to critically and effectively apply a risk-based response methodology provides the foundation for a safe and effective response. Using the Eight Step Process as the framework, this session will focus on the tactical management of HM and special operations incidents. Target audience includes both company and command officers, as well as HM Officers.
Intermediate. ICS-200/300 HM Incident Commander or equivalent.

T419  Wildfires and HazMat: Recent Case Studies
Paul Penn
Just when you thought the wildfires were enough, three recent wildfires raged through two Superfund sites and one that should be; and these aren't the only ones that made folks scratch their heads. Some flew below the radar (e.g., Iron Mountain) and some went viral instantly (e.g., Santa Susana). These incidents show how coordination, problem solving, heroism, and innovation work (or don't) in real time and the challenges encountered in the response (not post-fire recovery) and information management. This series of panels will consist of state, federal, and local participants recounting and expounding on some fascinating events.
Basic.

T420  Agricultural Terrorism-Part I of II
Matt Krimsky, Shawn Byrd
This class has been developed to prepare First Responders to deal more effectively and efficiently with a potential Agricultural terrorism incident.
Basic. This class is part I of II. This is a two-part class. Students may not attend part 2 (Afternoon of Thursday, 09-26-2019) unless they have completed part 1 (Morning session, this application) You must take part II to receive credit in this class.

T421  Improvised Explosive Devices-First Responder Awareness
Sheldon Fung, Lee Witkowski
The class will briefly cover the types of explosives, the effects of explosions and their danger to 1st responders followed by the components of an Improvised Explosive Device (IED) and the various ways they can be initiated. Numerous inert IEDs and videos will be utilized to illustrate the above. Safety guidelines for the 1st responder will be discussed.
Basic. This is part II of II. In order to enroll in this course the student must also take the Explosives Demo course W463.

T422  GEBMO (General Hazardous Materials Behavior Model)
Charles Wright, Thomas Murdock
This course will help response personnel identify and assess threats to public safety at hazardous materials emergencies. Upon completing the class, participants should be able to predict the likely behavior of hazardous materials containers and their contents using Benner’s GEBMO process and estimate the likely outcomes. Participants should also be able to describe the HazMat Dirty Dozen list of physical and chemical properties and how that information is used in predicting behavior, and estimating outcomes. Application of the concepts presented will be addressed throughout the class using a variety of past incidents to build proficiency in the process.
Intermediate. This is an offsite class.
Students will be transported to the location.

2-Hour Classes
7:30-9:15

T211  TRANSCAER-Advanced Response Techniques for Rail Hazmat Emergencies
Scott Etzel, Marc Gould, Zheng Li
Most state and local hazmat teams in California are not fully trained and equipped to respond to emergencies involving rail transport of hazardous materials. This session will present advanced technical information, response considerations, and practical guidance for incidents involving rail transport of hazardous materials commodities including anhydrous ammonia, liquefied petroleum gases, chlorine, refrigerated liquid carbon dioxide, and propane. Instructors will also facilitate hands on exercises with rail modul equipment used to transport these types of commodities and specialized response equipment beyond what state and local teams are issued.
Advanced. Basic ISC training, FRO, and Hazmat Tech training. Hazmat Spec training preferred. Students will be transported to the California State Railroad Museum.

T212  Human Error Prevention
Benjamin Herskowitz
Errors are made every day. Some are made with no consequence, while others lead to deadly disasters. Time, money and lives can be saved by becoming aware of common error precursors. This program takes a lighthearted look at how to prevent errors both individually and organizationally. We tend to take for granted that every day we are just one mistake away from a fatality or disaster that not only may affect ourselves but many others around us.
Basic. Open mind, sense of humor, be human (mostly).
Thursday Morning and Afternoon (continued)

T213 Hazmat Training using Virtual Reality Environments-CBRNE
John Rolando, Nick Vent
This course will demonstrate concepts of CBRNE response using virtual reality environments. Over 20 instruments are modeled including Chemical, Radiation and Explosive detectors. Biodetection is not modeled. Students will be shown how to use the programs then allowed to explore the environments on the computers provided. The RAILS system is an online or instructor led training funded by DNDO, DOE, NFPA and other agencies. Avatars don't die so explore the situations.

Basic.

T214 Cannabis Processing-Hidden Dangers in the HazMat and Containers Used for the Processing of Honey Oil and Other Extracts
Paul Horgan, Steve Lowe
Open discussion regarding startup companies supplying solvents and other chemicals used in the extraction of THC and CBDs. Many are ignorant of the regulatory requirements and industry standards for the safe handling of hazmat involved as shown by recent inspections by fire departments and law enforcement personnel. Issues discovered are the use of illegal and counterfeit cylinders, improper pressure relief devices, improper pressure rated components, complete lack of hazmat employee training, undeclared shipments, little or no leak detection and safety equipment while transferring un-odorized flammable liquids. Discussions on what Western Propane Gas Association is working on to help the industry comply.

Basic.

T215 “Burning Man” DuPont ThermoMan Demonstration
Dan Hirsh, Dan Bowen
ThermoMan is an instrumented mannequin that is dressed in a variety of FR and non FR garment ensembles and exposed to a jet fire. We measure the percent body burn for each exposure and can compute survivability based on age group. We will burn several garment combinations including chemical protective garments.

Basic.

T216 ThermoMan Demonstration
(4-Hour Classes)
9:15 - 9:45
Morning Break
in the Exhibitor Area

4-Hour Classes
1:00-5:00

T451 Effective Use of Portable Infrared & Raman Detectors
Dana von Kolen, Chris Weber
Infrared & Raman equipment are indispensable to the First Responders CBRN toolbox. They enable rapid classification and or identification of the varying unknown chemical hazards. Upon completion of the workshop the students will have an understanding of the strengths and limitations of Infrared & Raman technologies.

Basic.

T452 Leak City
Sharon McIntyre
Leak City is back with a look at emergency response tactics for today’s disasters! A model city that takes up almost an entire room where bad things happen and you can set things right! A scenario-based hands-on program designed to challenge students as they assess and problem solve from their perch above, plus some twists and turns.

Basic.

T453 Effectively Using the ALOHA Program Before, During, and After Chemical Incidents
Tom Bergman
ALOHA is an “air dispersion” computer program that 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.

Advanced. Basic CAMEO.
The Unexpected Extended Deployment-Survival Tricks, Tips, and Strategies
Susanne Rohner
While most of us hope for a short and sweet disaster resolution, we've all been in situations where that just isn't so. If you've ever responded to an emergency, and found your 10 hour shift turned into 72 hours, and wondered how can I make this more personally survivable, this class is for you. In this discussion format class, we'll learn from each other what works, what doesn't, and what to avoid when your short term rapid response becomes an unexpected long-term stay at the Disaster Inn.

Basic. While not required, some knowledge or experience responding to disasters, incidents, or unusual situations is helpful.

T252 FBI WMD Case Studies-Dr. Larry Ford and James Malcolm Sheldon Fung, Elizabeth Buckmiller
The course provides 2 WMD case studies the FBI conducted that involved Hazmat, Public Health, Bomb Squads, the FBI’s WMD team, and overseas intelligence operations. It's what movies are made about!

Basic.

T253 Don't Mess With Mercury! ATSDRs Mercury Spill In Schools Communication, Outreach and Prevention Tool Kit Libby Vianu, Jamie Rayman, Rusty Harris-Bishop
What happens when youth find mercury? They think it is cool, they play with it, share it with friends and contaminate themselves, houses and schools. Public health departments and emergency responders are called to educate students, parents, teachers, and school administrators about health effects of mercury and answer questions about spill clean-up. The Agency for Toxic Substances and Disease Registry (ATSDR) developed “Don't Mess with Mercury” to provide effective communication, outreach and prevention tools. Participants will be able to identify resources and support, understand health effects of mercury, communicate key messages, and have awareness of outreach and prevention tools.

Basic.

T254 Hazardous Materials and Adapting to Rising Tides-HazMat Commodity Flow Study Results Ellen Dempsey
Have you noticed the increase of extreme weather events over the last decade? From major hurricanes, fires, floods, and droughts, the effects continue to be more defined, but how do these expected changes affect Hazmat? This course will follow the track of Contra Costa County through the continuing investigation and implementation process in regards to the effects of extreme weather, specifically flooding, and how that impacts commercial and industrial parcels that have hazardous materials. This course will also discuss the completed Hazardous Materials Commodity Flow Study with Special Focus on Sea Level Rise and Flooding.

Intermediate.

T255 Legal Aspects of Fire/Hazmat Response Alan Finkelstein
This class will provide an overview of the legal ramifications of fire department hazmat response. Among the topics covered will be environmental and workplace regulations, agencies involved, and legal rights and responsibilities. Basic legal concepts will be discussed with case studies presented as illustration.

Basic.

T256 California Wildfires: From Natural Disasters to Natural Hazards Karen Riveles
More and more Californians are being affected by wildfires due to environmental changes and higher population in areas prone to wildfires. This course will investigate the different socioeconomic and physical indicators of high risk communities and how these factors may worsen the impact of wildfires. This course will also explore ways to assess communities that are vulnerable and/or sensitive to wildfires and address potential mitigation methods. Finally, this course will discuss the danger of hazardous material releases during wildfire events.

Basic.

T257 Respiratory Protection Standard-What it is and How to Comply Nick Vent
This course addresses general respiratory hazards, i.e. air purifying vs. atmosphere supplying, and how to determine which is appropriate to use. Discussion includes the revised federal/state respiratory standard and an update on revisions to 29 CFR, 1910.134. Letters of interpretation from OSHA providing clarification and a fill-in-the-blank respiratory protection program both available to participants will ensure compliance. We will discuss how to get your facility into compliance if you are not sure how.

Basic. Best suited for those that are responsible for their department or companies Respiratory Protection Programs and may be new to the position.
T258  Response to an Improvised Nuclear Device Detonation: Radiological Realities
Erik Gaull
TV and movie portrayals of the effects of a terrorist detonation of a nuclear weapon are not a good basis for planning. This presentation covers the best available science about what conditions would be like, what responders need to know to protect themselves and others following such an event, and discusses planning considerations for response to such an event.
Basic.

T259  Incompatible Chemicals and What To Do With Them
Michael Pixton
During a response action knowing how to deal with incompatible chemicals can make the difference between a bad situation and disaster. This course will give several examples of incompatible chemicals and discuss how to deal with them.
Intermediate.

2:45-3:15
Afternoon Break
in the Exhibitor Area

2-Hour Classes
3:15-5:00

T271  HazMatIQ PropaneIQ Part 2
ASME Cylinders (Includes Hands On)
Todd Smith
This workshop will prepare responders to safely mitigate a propane emergency involving a leaking non-bulk ASME propane tank. The focus will be on vessel assessment and leak countermeasures on each fitting found on ASME tanks. Assessment topics will include use and limitations of thermal imagers on propane vessels, importance of obtaining tank pressure, and recognizing overfilled tanks. Students will use the propane B kit to control simulated propane leaks on PropaneIQ training props. Each student will receive a set of PropaneIQ Smart Charts with a diagram of each propane vessel, along with potential countermeasures for each leak point.
Intermediate.

T272  Hazmat Urban Legends
Vance Bennett
Was that alligator in the sewer really a mutant caused by exposure to methyl-ethyl-diforsuranol? Find out the answers to this and other mysteries as we skewer conventional wisdom and expose outright prevarication in this light-hearted look at what everyone knows.
Basic.

T273  Response To An Infectious Disease From A HAZMAT Perspective
Bryan Mefford, Dr. Kasyrie
Bridging the gap between the Health Department, Fire Department, Law Enforcement and HAZMAT teams.
Basic.

T274  Beyond the Responses; Managing Hazardous Waste from Ancillary Operations in the Fire Services
Deirdre Williams, Winston Perez
Hazardous waste has become ubiquitous and is generated by industries, homeowners, and yes even the fire service. Because of the identified hazards and the prevalence of illegal disposals and accidental releases the EPA promulgated very stringent regulations and a regulatory program requiring generators to manage the waste and authorized entities to ensure the waste management practices were being adhered to. California not only adopted the Federal regulations but, added its own updated HazCom Plan. OSHA does cite departments for non-compliance with the standard. Come find out if you are in compliance with the standard.
Basic.

T275  Wildfire Debris and How to Deal With It
Michael Pixton
When homes and businesses burn during a wildfire the debris that is left poses both an imminent and long-lasting hazard. Removing the debris while minimizing the hazards is what this class will discuss using the model developed by Cal Recycle and DTSC.
Basic.

T276  Protective Clothing for Response to Liquid and Particle Biological Hazards
Miller Opolka
This class will review the NIOSH/CDC and IAB Recommendations and Guidance on Protection against Ebola virus, fentanyl, and other powdered opioid compounds.
Basic.

T277  Hazardous Communications Standard (29CFR 1910.1200) Updates
Nick Vent
The Hazard Communications standard has been updated. Say goodbye to the old 9 part MSDS and say hello to the 16 part SDS. Labels do not look the same. Pictographs are now included to make the US compatible with the rest of the world to a degree. We will go over all of the changes and I will even leave you with an electronic version you can use for your own updated HazCom Plan. OSHA does cite departments for non-compliance with the standard. Come find out if you are in compliance with the standard.
Basic.

T278  Fourth Generation Agents- Discussion Group
Gail Obeso
A series nerve agents pose unique challenges for the responder. They are more persistent than the traditional agents and the delayed onset of symptoms makes detection and identification difficult. This is a discussion group for the sharing of information and guidance documents.
Basic.
Friday Morning

Friday 4-Hour Classes 7:30-11:30

F411 HazMatIQ Tox Medic
Curt Thompson
The HazMatIQ Tox-Medic® Course is a specialized EMS training program designed to give medics the knowledge and confidence required to provide advanced life support care including anti-dote administration, to patients suffering from a hazmat/WMD exposure. This course complements the HazMatIQ: Above the Line, Below the Line® Course. The Tox-Medic Course is taught using the same simple and street smart methods that have made the HazMatIQ System a national success. Each student will receive a laminated set of Tox-Medic Smart Charts and a NIOSH Pocket Guide to Chemical Hazards.

F412 Hazardous Materials Command-Setting up for Success, Avoiding Pitfalls and Leading from the Front
Daniel Talbot, Charles Tobias
The goal of the class is to provide students with real-world information concerning the management of hazardous materials incidents. The course will cover pre-incident preparation, actively managing the event and avoiding the common pitfalls. The points illustrated during the lecture will be re-enforced during two scenarios which are based on actual hazardous materials emergencies. The instructors combined have over 60 years of experience in the fire service. Each instructor has managed multiple significant hazardous materials events.

F413 Virtual Response to Real Life Hazmat Incidents
Dana von Kolen, Chris Weber
We will look at actual incidents and formulate response objectives including rescue, recon, and mitigation as a top exercise. Using detection and identification equipment on the chemical involved we will compare our response to what actually occurred.

F414 Unmanned Aerial Systems - Will Drone
Michael Seligsohn
This class will expose the student to the specifics of small Unmanned Aerial Systems(sUAS) in the public safety and HazMat Environments. Through lecture and visual aids, the student will learn what the legal situation is regarding drone usage, as well as the benefits, and costs of entering into the drone-o-sphere. Real events will be studied, both success and expensive not so successes will be looked at.

F415 The Original Small Spills Class
Mark Bridges
We often see ‘trends’ in HazMat Incidents. This class will focus on those trends and discuss recommended procedures for handling them and other common types of hazmat incidents including: Radioactive diapers, illegal dumping, pool truck and pesticide spills, odor investigations, fumigation incidents, electrical vaults, acid in the trash truck and many more. Case studies of actual incidents will be reviewed. You are guaranteed to leave this class much better informed and ready to handle these more common hazmat incidents!

F416 Foundations of Health, Injury Management & Self-Treatment in Public Safety
Eve Webber
This class will discuss the foundations of health & injury management and self-treatment for workplace injuries. Also, it will discuss and demonstrate via class participation, what types of exercises aid in self-treatment for common injuries in the neck, back, hips and knees for Public Safety Professionals. In addition, this class will discuss nutrition, sleep deprivation and self-care as it relates to managing common injuries.

F417 History of Illegal Drug Labs and Current Manufacturing Trends
Brian Escamilla
This course provides a broad historical review of Drug Labs in the United States and California specifically. The emphasis is placed on chemicals used, manufacturing methods, hazards that are presented to agency personnel and current trends in illegal manufacturing. The handout provided includes the text and pictures provided during the presentation.

F418 Suspicious Substance Sampling Refresher
Gail Obeso, Kathy Hansen, Channing Sheets
Sampling for suspicious substances is a perishable skill. Proper container selection and collection method are key to good results and successful prosecution. If your skills are a bit rusty, this course offers a brief overview, facilitated discussion and active sampling stations.

F419 CBRN Sampling for Public Health
Robert Neumann, Kristen Wend
This course will discuss sampling fundamentals and various sampling techniques within the FBI 12-step evidence collection framework and provide suitable samples for the Laboratory Response Network for Chemical Threats (LRN-C) and Laboratory Response Network for Biological Threats (LRN-B). Techniques to prevent cross-contamination, properly package samples and to establish chain of custody are discussed. Students will perform each of the discussed sampling techniques during a practical exercise. This course will provide first responders with the competencies to collect samples of possible CBRN contamination in order to allow laboratories to conduct highly reliable scientific analysis of samples.

F420 Instruments and Accidents
Tom Clawson, Ken Keaton
This session allows participants to test their radiation detecting equipment using “live sources.” Participants will have the opportunity to learn detector efficiency and limitations. Additionally, participants will work together and approach a mock accident scene, involving radioactive material. They will discuss command responsibilities, down range responder responsibilities, and contamination control. This is a great way to utilize personal detectors and see how they respond to live sources.

F421 When Hazardous Materials Meet the Wildfire Interface
Michael Weisenberg, Peter Jensen
The recent Thomas and Woolsey fire provided us with many hazardous materials challenges in the interface. Evacuating vs. sheltering in place, containment, monitoring, public information, risk vs. gain, and mitigation.
were some challenges the Ventura County Fire Department faced in the recent wildfires. Some of the topics we will discuss are the challenges and solutions utilized to mitigate oil fire seeps in the Ojai Valley, an oil storage tank fire, and the threat to the Rocketdyne facility in Simi Valley.

**Basic.**

F422  **TRANSCAER-Advanced Response Techniques for Rail Hazmat Emergencies**

*Scott Etzel, Larry Lufrano, Dave Buccolo*

Most state and local hazmat teams in California are not fully trained and equipped to respond to emergencies involving rail transportation of hazardous materials. This session will present advanced technical information, response considerations, and practical guidance for incidents involving rail transport of hazardous materials commodities including anhydrous ammonia, liquefied petroleum gases, chlorine, refrigerated liquid carbon dioxide, and propane. Instructors will also facilitate hands on exercises with rail modal equipment used to transport these types of commodities and specialized response equipment beyond what state and local teams are issued.

**Advanced. Basic ISC training, FRO, and Hazmat Tech training. Hazmat Spec training preferred. Students will be transported to the California State Railroad Museum.**

**Friday 2-Hour Classes 7:30- 9:15**

F211  **Assessing Tank Car Tank Damage**

*Charles Wright*

Identifying and interpreting the type and extent of damage to railroad tank cars is critical to analyzing the problem at rail emergencies involving hazardous materials. Responders to railroad emergencies should be able to identify the different types of tank cars, types of tank damage, and the extent of damage so they determine the extent of the problem. They should also be able to interpret the significance of that damage and tactical options to address the problem.

**Intermediate.**

F212  **Cut, Paste, Create…The Evolution of a Successful Behavioral Health Program**

*Tina Casola*

We’ve read the literature, have had the conversations… everyone agrees we need to do something!! What are we doing? If you are creating a new program, adjusting a current program or just love to talk about this stuff as much as we do—JOIN US! We’ll discuss, create, cut and paste…. Whatever it takes to have you leaving with tangible products that you can take back home to support your personnel’s emotional wellness needs!

**Basic.**

F213  **Hazmat and the Fire Code**

*Alan Finkelstein*

This class will examine the areas where jurisdictional fire codes intersect with hazardous materials planning and response. Using the Ohio Fire Code as an exemplar the presentation will address facility inspections, federal reporting regulations, and any questions or concerns attendees may have.

**Basic.**

F214  **Hanby Field Test Kits for Immediate Water/Soil Analysis and The New ER Paradigm with OMG Solutions**

*Charles D. Fator, Randy Cook, Jessica Innocenti*

During this course, the Student will learn the science behind the 33 year old Hanby Field Test Kits providing the immediate analysis of hydrocarbon contaminated water and soil. This real time feedback is coupled with the real time treatment of hydrocarbon contamination by OMG Solutions ELMN8 product line, which immediately oxidizes the hydrocarbon contamination via a non-hazardous and non-toxic solution. The combined utilization is known as "The New Hydrocarbon Remediation Paradigm” creating a Paradigm Shift in the way Hydrocarbon Contamination is addressed.

**Basic.**

F215  **Analyzing a HazMat Incident: The Process, Problems, and Avoiding Traps**

*William Miller*

Effective and safe HazMat/WMD response requires the ability to accurately evaluate data, assess hazards and formulate a plan. In this class, students will examine and explore the analysis process as it applies to HM/WMD response. Emphasis will fall on avoiding biases and traps that are often part of analysis conducted by humans. Unrecognized and unaccounted for, these traps (e.g. misuse of narratives, undetected and ignored data, silent experts and discounting newer/non-conforming data) can lead to extreme unforeseen events. The instructor will use the response to an actual HazMat incident to illustrate the analysis process and its traps.

**Basic.**
Friday Morning (continued)

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<td>F216</td>
<td>Pesticide HAZCOM and DPR Radiation Basics and Litvinenko Poisoning Study</td>
<td>Greg Jones</td>
<td>Provide basic understanding of radiation basics including biological effects and case study of the Litvinenko Radiological Poisoning.</td>
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<td>IMAAC and Atmospheric Release Modeling from the Federal Government</td>
<td>Erik Gaul</td>
<td>The Interagency Modeling and Atmospheric Assessment Center is a 24/7 federal government resource that can assist SLTT public safety and emergency management agencies with free plume modeling and scientific interpretation. Models are developed by trained scientists using highly sophisticated software. This presentation describes IMAAC’s capabilities and methods to support planning, exercises, and real-life incidents, as well as how to request such support, and what kinds of products to expect.</td>
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<td>Mark Norman, Dave Godlin, Jesse Taylor</td>
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<td>Hydrofluoric Acid-A Mixture for Disaster</td>
<td>Karen Riveles</td>
<td>In the past decade, the public in California has been concerned with the use of hydrofluoric acid having an impact to their health. How concerned should we be? The course will cover what hydrogen fluoride is, its uses, how people can be exposed to HF, acute and chronic health effects, human case studies, and how the public and first responders can protect themselves from the dangers of HF.</td>
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<td>IT'S NOT JUST BLOOD. COULD YOU BE TAKING BACTERIA AND VIRUSES BACK TO THE STATION OR WORSE, HOME</td>
<td>Keith Davis, Justin Hook</td>
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Lunch & Closing Ceremonies: Grand Ballroom 11:30 - 1:30
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<td>F411</td>
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<td>Vent, Nick</td>
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<td>Vianu, Libby</td>
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<td>von Kolen, Dana</td>
<td>W453, T412, T451, F413</td>
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<td>Webber, Eve</td>
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<td>Weisenberg, Michael</td>
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<td>Wennhold, Bill</td>
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<td>Wright, Charles</td>
<td>T422, F211</td>
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<td>Yerabati, Sauda</td>
<td>Z814</td>
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<tr>
<th>ADJUNCT INSTRUCTORS</th>
<th>Name ................. Course number</th>
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<tr>
<td>Coyne, Michael</td>
<td>W460</td>
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<td>Harris-Bishop</td>
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<td>Horowitz, Jason</td>
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<td>Innocenti, Jessica</td>
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<td>Sheets, Channing</td>
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<td>Taylor, Jesse</td>
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</table>

Register online at https://www.hazmat.org
Workshop Registration Information & CEUs

EARLY BIRD REGISTRATION OPENS online at: https://www.hazmat.org
June 1, 2019
COST IS $450

LATE REGISTRATION BEGINS:
August 16, 2019
COST INCREASES TO $550
Due to limited space, be sure to register right away.

Registration fees include:
• Workshop
• Class material from instructor
• Lunch: Wednesday-Friday
• Dinner: Wednesday only
Payments MUST accompany registration.

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Payments MUST accompany registration.

Continuing Education Units (CEUs)

General Continuing Education Units (CEUs) are available. A fee of $95 establishes and maintains a record of attendance for 5 years through CPR Etc LifeHouse Training Center in conjunction with Accelerated Business Group, LLC CEUs. CEU’s are awarded based on attendance hours.

Registered Environmental Health Specialist (REHS) contact hours are available. A fee of $95 establishes and maintains a record of attendance for 5 years through CPR Etc LifeHouse Training Center in conjunction with Accelerated Business Group, LLC and includes both REHS continuing education contact hours and General CEUs. Only specific courses are approved for REHS contact hours. Be sure to speak to a CEU coordinator during on-site check-in for a list of approved classes.

EMS CEUs are available through CPR Etc LifeHouse Training Center in conjunction with Accelerated Business Group, LLC, an approved CA EMS CE Provider (#07-0023). A fee of $95 establishes and maintains a record of attendance for 5 years through CPR Etc LifeHouse Training Center in conjunction with Accelerated Business Group, LLC CEUs. Only specific courses are approved. Be sure to speak to a CEU coordinator during on-site check-in for an estimate of approved hours. Also, be prepared to submit a copy of your License and photo ID.

COST
Generals CEUs - $95
EMS CEUs - $95
REHS CEUs - $95

To register and submit payment for CEUs, contact the CPR Etc. LifeHouse Training Center CEU Coordinator at: cprlifehouse@gmail.com. Include in your email, your name, your POC, your type of CEU and the method of payment (credit card, check or PO#).

If you have questions, please call 916-973-9982 or email cprlifehouse@gmail.com.

Questions?
E-mail info@hazmat.org or call (916) 433-1688

All Registrants Must Have a Profile

Due to the additional security of our new website, everyone must create a new profile in order to register for any of our events. This will not only ensure that you are on our mailing list, but you will also be able to complete applications quickly on our site (i.e., exhibitor, student registration, instructor proposals, grant requests, etc). All course changes must be made through your profile.

Cancellation & Refund Policy

Registration fees will be refunded (less a $100 processing and administrative fee) for written cancellation requests postmarked no later than August 10th.

• Refunds will not be issued for cancellations made or postmarked after August 10th.
• Refunds will not be issued for workshop no-shows.
• If you are unable to attend and wish to send a substitute you may do so at no extra charge if you provide substitute name and contact information via email at cchazmat@gmail.com prior to August 17, 2019. After that date, substitute must appear in person at the workshop and request the change.

Please note that if you do not cancel and do not attend, you are still responsible for payment.
Remember the one-time date change for
The Continuing Challenge HazMat Workshop is
September 23-27, 2019
This is the last week of September 2019
at the DoubleTree by Hilton Sacramento, California
The 30th Annual Continuing Challenge HazMat Workshop

Awards, Photo Contest & Cycling Event

Awards Nominations for 2020 are being accepted now at https://www.hazmat.org. Nominate someone you know!

The Continuing Challenge Awards Presentation

Robert P. Turkington
Innovation and Technology
Sponsored by Bauer & Associates

James H. Meidl
Instructor of the Year
Co-Sponsored by California Specialized Training Institute & California State Fire Marshal

Continuing Challenge Medal of Valor
Sponsored by The Continuing Challenge Committee

William J. Patterson
Lifetime Achievement
Sponsored by Sacramento Fire Department

Leo K. Najarian
Responder of the Year
Sponsored by California State Fire Fighters Association

Calling All Cyclists

The Continuing Challenge 1st Annual Cycle Sportif

Please join us for the First Annual Emergency Responder Cycling Event from Sacramento to Folsom and back along the American River Bike Trail (see link below). This will be an organized ride at your best pace. Come out and represent your Department or Agency!

Map My Ride

CCHaz 2019 SPORTIF
https://ridewithgps.com/routes/29631151

Distance: 55 miles
Total climb: 1086 ft

Sportif Event Schedule

Monday Sept 23, 2019 @ 0900 hrs
Line up in starting zone at the DoubleTree Hotel Sacramento
Group roll out

Rest stop at parking lot next to Mikes Bikes, Folsom
Finish at Doubletree Hotel Sacramento at Continuing Challenge Exhibitions

Cycle Kit

Order your CCHazmat Cycle Kit! Available in all Men's and Women's sizes.
Contact Terry Joslin for details.
BW - TJ tj@blue-h2o.com 
Terry Joslin terry.joslin@icloud.com
Terry Joslin
Cell: 415-990-2583

More information is located online at https://www.hazmat.org.

The Continuing Challenge HazMat Photography Contest

Enter your photo online at https://www.hazmat.org.
In the drop down menu, select “About Us” and then click on “Photo Contest” to see the rules and enter your photo.
Thank you for attending the 30th Annual Continuing Challenge HazMat Workshop.

Your continued support helps us provide the best training possible!

Looking forward to seeing you in 2020

Save the Date: September 8-11, 2020

The address of the DoubleTree by Hilton Sacramento is below. The Fairfield Inn Sacramento Cal-Expo-Marriott and the Hilton Sacramento Arden West Hotel are our overflow hotels.

DoubleTree by Hilton Sacramento
2001 Point West Way
(916) 929-8855
or 800-686-3775

Fairfield Inn Sacramento
Cal Expo-Marriott
1781 Tribute Rd
(916) 920-5300
or 800-321-2211

Hilton Sacramento Arden West Hotel
2200 Harvard St
(916) 922-4700

The host hotel for the Continuing Challenge is the DoubleTree by Hilton, Sacramento, California. The Continuing Challenge HazMat room rates are: Single $95 // Double $95

For internet reservations, use our https://www.hazmat.org website, and under the workshop tab click on lodging and there is a link for the DoubleTree. This link will give you the discounted room rate.

Telephone Reservations may be made by calling The DoubleTree by Hilton (916) 929-8855 for the front desk or toll free at (800) 686-3775. Ask for the HazMat “Continuing Challenge” group rate “HAZ”.

These Workshop rates will be available until all available rooms are reserved, but not later than August 29, 2019.

Please note: Generally the hotel is booked 60 days in advance.

Make your reservations now!
Our Mission:
To provide safe response training for all emergency responders to hazardous materials incidents affecting public health and the environment.

The Continuing Challenge Workshop Committee
Dennis Smith, Chair

California Governor's Office of Emergency Services (Cal OES)
- Erika Olsen, Fred Mehr, Charles Tobias
- Cal OES, California Specialized Training Institute (CSTI)
  - Matt Krimsky
- Cal OES, Fire & Rescue Division
- California State Firefighters' Association
  - Bob Hamilton
- California Highway Patrol (CHP)
  - Reid Erickson, Adam Roha
- CPR Etc. LifeHouse Training Center
  - Tom Ehlert, Gary Pirkig
- Enmagine
  - Paul Penn
- Federal Bureau of Investigation (FBI)
  - Sheldon Fung
- Hazmat Transportation Consultant
  - Paul Horgan
- Honolulu Fire
  - Dean Randall, (Retired)
  - Wes Toneyama, (Retired)
- Office of Homeland Security
  - State of Hawaii Department of Defense
    - Sonny Maguire
- Office of the State Fire Marshal (OSFM), State Fire Training
  - Kris Rose
- Sacramento County Environmental Management Department
  - John Elkins, Heather Tanner
- Sacramento Fire Department
  - Jerry Apodaca, (Retired), Sean Dail, Bryon Mefford, Don Braziel (Retired), Dennis Smith (Retired), Diana Yates
  - John Woytak
- United States Environmental Protection Agency
  - Chris Reiner
- California Conservation Corps
  - Melinda Allen
- California Department of Corrections & Rehabilitation
  - Paul Vasquez
- California Department of Fish and Wildlife, Office of Spill Prevention and Response
  - Mike Kirchner, Jim McCall
- California Department of Public Health
  - Veronica Malloy
- California Department of Transportation
  - Hazmat Branch
    - George Avila
- California Environmental Protection Agency (CalEPA)
  - Paul Penn (Retired), Kristi Placencia
- CalEPA California Department of Toxic Substances Control
  - Trevor Anderson, Dylan Clark, Alan Ito (Retired), Bonnie Lew, Nancy McGee, Ivan Rodriguez
- Cal EPA Office of Environmental Health Hazard Assessment
  - Karen Riveles
- Blue Water & Associates
  - Terry Joslin, (Retired)
- California Conservation Corps
  - Melinda Allen
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  - Karen Riveles

Check the address label.
Does it need any corrections?
Visit our website at https://www.hazmat.org to update your profile.