Ohio Hazmat Teams Conference

Pre-Conference Training
Workshops – Vendors - Demonstration

November 6 - 8, 2025

Register at: www.OhioHazmatConference.com

Solon, Ohio

Sponsored by Chagrin / Southeast Hazmat Response Team
with support from the Cuyahoga County LEPC and
the Ohio PUCO

OHIO HAZ-MAT TEAMS CONFERENCE

24th Annual Haz-Mat Technician/Specialist Refresher Training

Friday, November 07, 2025

Time	Room A	Room B	Room C
0800-0830	Registration, Coffee and Visit Exhibits		
0830-0845 0845-1000	Welcome and Opening Remarks: Mark Vedder KEYNOTE: Truck Fire with Lithium Ion Batteries, Columbus, Ohio Jake Rotthoff and Chris Gutman, Columbus Fire Dept		
1000-1030	Break—Visit Exhibits		
1030-1200	Approaching a Train Derailment Emergency Response Barry Lindley	Shrinking the Hot Zone: Hazmat Response and Scene Control Mike Vacco / Kevin Zeigler	Field Detection of Pesticides Chris Weber
1200-1245	Lunch - Provided in Exhibit Areas - Exhibit Areas Open		
1245-1415	Lithium Battery Emergencies (Part1) Nick Zamiska Curt Thompson	Bread and Butter Hazmat Calls: Flammables and Corrosives Rick Dufek	Field Detection of Pesticides (repeat) Chris Weber
1415-1445	Break—Cookies and Exhibits		
1445-1630	to Lithium Battery Emergencies (Part2) Nick Zamiska Curt Thompson	Propane Tactics: First on the Scene to a Propane Incident Ron Huffman	Hazmat Safety Officer: OSHA and the ICS208HM Mark Vedder
1630	Evaluations and Certificates		

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All schedules, speakers and topics are subject to change without notice.

OHIO HAZ-MAT TEAMS CONFERENCE

24th Annual Haz-Mat Technician/Specialist Refresher Training

Saturday, November 08, 2025

Time	Room A	Room B	Room C
0800-0830	Registration, Coffee and Visit Exhibits		
0830-0845 0845-1000	Welcome and Opening Remarks: Mark Vedder KEYNOTE: Update on the Ohio Hazmat Technical Advisory Committee (TAC) and Funding for Hazmat Training in Ohio Mark Vedder		
1000-1030	Break—Visit Exhibits		
1030-1200	Cross Sensitivities in Gas Detection: Challenges and Opportunities Mike Vacco / Kevin Zeigler	Bread and Butter Hazmat Calls: Flammables and Corrosives Rick Dufek	Anhydrous Ammonia: Properties, Process and Incidents Dave Binder
1200-1245	Lunch - Provided in Exhibit Areas - Exhibit Areas Open		
1245-1415	Cross Sensitivities in Gas Detection: Challenges and Opportunities (repeat) Mike Vacco / Kevin Zeigler	Risk Based Response to Pool Chemical Emergencies Barry Lindley / Mark Vedder	Anhydrous Ammonia: Properties, Process and Incidents (repeat) Dave Binder
1415-1445	Break — Cookies & Exhibits		
1445-1630		Hazmat Class 5: Oxidizers and Organic Peroxides Mark Vedder / Barry Lindley	Propane Tactics: First on the Scene to a Propane Incident Ron Huffman
1630	Evaluations and Certificates		

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2025 Ohio Hazmat Teams Conference
Workshop Descriptions

PRE-CONFERENCE: Nov 6, 2025
Registration 0800 hrs
Classes from 0830-1600 hrs

Propane Response: 101 to Advanced Tactics – Ron Huffman

Provides the student with general information needed to respond to a propane leak involving a bulk transportation vehicle (rail, MC331 tanker or bobtail), bulk storage (250 gallon and larger), common residential and portable tanks. We'll discuss tried and true response practices and emerging technologies and tactics. What is propane, what are the hazards, preplanning, response, and mitigation tactics that include: doing nothing, vapor dispersion, product control, product transfer, flaring and water injection. Students will learn about the limitations caused by system restrictions that limit flow, the importance of managing product levels and how temperature and pressure information is applied. We will discuss how flaring Liquid vs Vapor is used as a product management option. Students will be shown how, when they could and when it's not recommended to use water injection.

Get to Know Chemical Processes Used in Illicit Labs – Chris Weber

Illicit labs are often complex incidents to respond to due to the presence of a variety of chemicals, glassware, equipment, and chemical processes. Hazmat responders are typically unfamiliar with these situations which increases the danger to responders and the public. We will explain how these chemical processes work, we will set up several processes in a stepwise fashion during the workshop, and show the active chemical processes in action. Students will have the opportunity to engage in recon, air monitoring, sampling, and chemical identification activities at simulated labs running active systems. Come join us to gain real world experience before you find yourself on such an incident.

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Workshop Descriptions

KEYNOTE FRIDAY: Nov 7, 2025

Case Study: Response to Truck Fire with Lithium Ion Batteries
Captain Jake Rotthoff and Battalion Chief Chris Gutman, Columbus Fire Department

They will review the challenges created by an incident involving a truck fire when it is discovered the truck is filled with lithium ion batteries. They will detail the efforts of the Columbus Fire Department, other regulatory agencies, local responders and cleanup contractors to mitigate those challenges. There will also be other runs reviewed from the expect the unexpected perspective. They will also discuss the lessons learned from these incidents and how they may impact future responses.

Approaching a Train Derailment – Barry Lindley

Train Derailment, Now What? This workshop will focus on how you should approach a derailment scene, starting with preplanning to initial assessment of the incident. We will discuss the products, the containers and what is impacted. Will include case histories with examples of successful and not so successful emergency response.

Field Detection of Pesticides – Chris Weber

Pesticides are becoming a more prevalent problem for hazardous materials responders. Historically organophosphate pesticides have been the culprit in medical emergencies and suicides. Recently there has been a surge in new pesticide development due to the continuous cycle of regulation and restrictions. Pesticides on the market now include carbamates, pyrethroids, neonicotinoids, and others. Often pesticides affect the nervous system, but in different ways. Identification of the pesticide is critical to patient treatment and keeping responders safe. We will discuss many recent incidents involving pesticide exposures and gather the lessons learned. We will examine the identification tools we have in our toolbox to detect and identify pesticides at a range of concentrations.

Incident Response Considerations for Lithium Battery Emergencies – Nick Zamiska and Curt Thompson

This workshop will provide responders with the understanding of the hazards associated with Lithium Ion (Li-Ion) Batteries. It is a comprehensive overview of batteries found in transportation, commercial, industrial, and residential settings.
We will review several case studies and best practices, to make safe and calculated decisions in an emergency response setting, including Lithium Battery Response, Electric Vehicles, and Battery Energy Storage Systems.

Shrinking the Hot Zone: Hazmat Response and Scene Control – Mike Vacco and Kevin Zeigler

This workshop provides emergency responders with essential knowledge and practical strategies for effectively managing hazardous materials incidents. Built around real-world tactics, the training emphasizes reducing risk to responders and the public through disciplined scene control, systematic hazard assessment, and coordinated mitigation efforts.
Participants will learn to apply the “Hazmat Playbook” approach to safely identify hazards, establish zones, and implement protective actions. The program reinforces both tactical decision-making and regulatory compliance (NFPA 470 standards), preparing responders to work confidently in high-stakes environments.

Bread and Butter Hazmat Incidents – Rick Dufek

In the fire service we refer to room and content and car fires as bread-and-butter calls. Do we have Bread &Butter hazmat calls? According to the DOT 50% of transportation incidents are Flammable/Combustible Liquids, and 30% are Corrosive materials. So with 2 hazard classes we have 80% of transportation incidents. If they are transported, that means they are also produced, stored and used in our response areas. We should be able to respond to these incidents with the same confidence. This class will look at the chemical and physical properties of these 2 families, and how the information can be used in a risk-based response.

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Propane Tactics: You're the first on the scene to a propane incident – Ron Huffman
You have the potential to be dispatched to something new or a call you don't have specialized equipment for. What happens when you're the first department on scene to a propane incident and have nothing to work with. During the workshop we'll discuss tactical options for just such an incident. We'll look at evacuations, vapor management, management of heat sources allowing a tank to cool or manage how much it warms up. We'll discuss the why, where, and how to correctly apply water. We will discuss freeze patching and the challenges of making it work well. We'll look at past incidents and to see what happened and what we can learn from them and much more in the classroom.

Hazmat Safety Officer: OSHA Requirements and the ICS208HM – Mark Vedder
This workshop will review the safety requirements in OSHA 29CFR1910.120 and apply them to real incidents. Then we will review how to use the ICS 208HM form as a safety checklist to make sure you have addressed each one of them. This becomes the Hazmat Safety Officer's tool to make sure your team is ready to make a safe entry.

KEYNOTE SATURDAY: Nov 8, 2025

Update on the Ohio Hazmat Technical Advisory Committee (TAC) and Funding for Hazmat Training in Ohio - Mark Vedder
Mark will review the progress of the Ohio Hazmat Technical Advisory Committee (HM TAC) in ensuring readiness for hazmat emergencies in Ohio. This will include mission, team typing, funding, the Ohio Response System (ORS) and sources of funding for hazmat training.

Cross Sensitivities in Gas Detection: Challenges and Opportunities – Mike Vacco & Kevin Ziegler
This workshop provides a comprehensive understanding of cross-sensitivities in gas detection systems. While cross-sensitivity is often seen as a limitation, this training reframes it as both a potential challenge and a valuable tool in hazard recognition and response. Learn how to interpret sensor responses more accurately, reduce false assumptions, and use cross-sensitivity data to increase situational awareness during hazmat incidents. Drawing on manufacturer documentation, real-world case studies, and practical field applications, the workshop highlights the importance of recognizing sensor limitations while leveraging their strengths to improve responder safety and incident outcomes.

Propane Tactics: You're the first on the scene to a propane incident – Ron Huffman
You have the potential to be dispatched to something new or a call you don't have specialized equipment for. What happens when you're the first department on scene to a propane incident and have nothing to work with. During the workshop we'll discuss tactical options for just such an incident. We'll look at evacuations, vapor management, management of heat sources allowing a tank to cool or manage how much it warms up. We'll discuss the why, where, and how to correctly apply water. We will discuss freeze patching and the challenges of making it work well. We'll look at past incidents and to see what happened and what we can learn from them and much more in the classroom.

Anhydrous Ammonia: Properties, Process and Incidents – Dave Binder
This workshop will lead off with a quick review on anhydrous ammonia properties and how that impacts response and tactics. Then we will review common ammonia processes, (e.g. refrigeration, power plant use, and others) as well as fixed containers and selected transportation packaging. Finally, some case histories will be reviewed, including outdoor and indoor release situations and hazards when responding to real world ammonia incidents.

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Hazmat Class 5: Oxidizers and Organic Peroxides - Mark Vedder / Barry Lindley
This workshop will review the properties of oxidizers and organic peroxides that can make them challenge in risk-based response. We review the classes of oxidizers and organic peroxides, give examples of each, and see how contamination can lead to violent decomposition and/or fire. The workshop includes videos of chemical reactions and discussion of real world incidents.

Bread and Butter Hazmat Incidents – Rick Dufek
In the fire service we refer to room and content and car fires as bread-and-butter calls. Do we have Bread &Butter hazmat calls? According to the DOT 50% of transportation incidents are Flammable/Combustible Liquids, and 30% are Corrosive materials. So with 2 hazard classes we have 80% of transportation incidents. If they are transported, that means they are also produced, stored and used in our response areas. We should be able to respond to these incidents with the same confidence. This class will look at the chemical and physical properties of these 2 families, and how the information can be used in a risk-based response.

Risk Based Response to Pool Chemical Emergencies – Barry Lindley / Mark Vedder
Emergencies involving pool chemicals has become a common response for hazmat teams. This workshop will review the common chemicals, chemical reactions and methods for mitigation. We will also discuss the common symptoms of exposure and pre-hospital treatment options.

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Instructor Bios

Jake Rotthoff
Jake is a Captain with the Columbus, (OH) Division of Fire, and is currently assigned in the Special Operations Bureau overseeing CFD's Hazmat Team. He has served 22 years with CFD and is also a Paramedic, Hazmat Tech, Hazmat Branch officer and Safety Officer and a Public Safety Instructor. In addition, he has earned a Bachelor of Science in Fire Science and a Master of Public Administration.

Chris Gutman
Chris is a 15 year veteran of the Columbus, (OH) Division of Fire, where he serves as the Battalion Chief in charge of Emergency Preparedness. His responsibilities include oversight of Special Events and Tactical EMS. In addition, he is an instructor for the division, teaching Fire/EMS and ICS courses.He holds a Batchelor's Degree in Fire Science and a Masters Degree in Public Administration.

Rick Dufek
Richard Dufek worked for the City of Carmel (IN) Fire Department for 33 ½ years, retiring as a Battalion Chief/Hazmat Team Coordinator. Currently an adjunct instructor for the National Fire Academy, teaching the Hazardous Materials Operating Site Practices and the Chemistry of Hazardous Materials. He authored the Basic Chemistry for Emergency Responders class and works as a contract instructor training hazmat personnel on their Emergency Response equipment.

David Binder
Dave is the Director of Quality, Safety & Regulatory Affairs, and the Training Director of the Ammonia Safety & Emergency Response Training (ASERT℠) program with Tanner Industries, Inc. in Southampton, PA. David facilitates safety and emergency response training programs throughout the world for industry, fire department, emergency response and emergency management personnel. He also speaks and presents at numerous Federal, State and Industry Association conferences. He is very involved and in leadership positions with various industry associations and has served on various standards committees. David serves on the National TRANSCAER Task Group and chaired the curriculum committee that put together the Anhydrous Ammonia training program.

Chris Weber
Dr. Chris Weber is the President/CEO of Dr. Hazmat, Inc. which specializes in hazardous materials training and consulting for emergency responders, the military, and industry. His experience includes serving on the Washtenaw County (Michigan) Hazardous Materials Response Team for over a decade in positions that include hazmat technician, training officer, and deputy director. He also served as a member of the Longmont (CO) Fire Department Hazmat Team for seven years as a SME and hazmat specialist. He has been a firefighter for over 30 years and is currently a member of the Hygiene Volunteer Fire Department. He has extensive experience involving hazardous materials chemistry, including a Ph.D. in cellular and molecular biology and biological chemistry from the University of Michigan, Ann Arbor. Chris has authored the following books: Pocket Reference for Hazardous Materials Response; Hazardous Materials Operations (textbook); and Hazardous Materials Technician (textbook) and is a regular speaker at emergency response conferences around the world.

Nick Zamiska
Nick is the retired Fire Chief of the Brecksville (OH) Fire Department. Nick is the former Director of the Southwest Emergency Response (SERT) Hazmat Team. He has a Bachelor of Science degree in Emergency Management from the University of Akron and a Master's in Public Administration degree from Columbia Southern University. Nick is a lead instructor with Bad Day Training and enjoys delivering a wide-variety of emergency response training. He has spoken at several conferences, including the Ohio Fire Chief's conference, FLA Hazmat Conference, PA Hazmat Conference, NW OH Hazmat Conference, and FDIC. Nick is a fire instructor and Hazmat / WMD technician instructor in the State of Ohio. He is also an alternate member of the NFPA Technical Committee on Hazardous Materials / WMD Response (NFPA 470).

Curt Thompson
Curt is a retired Captain and Hazmat Team Leader for the Waterford (MI) Fire Department. He has conducted Hazmat response training for first responders and private inductrery across the United States. Curt is the President of Right Track Response Solutions and is also a Program Manager with Michigan State Police. He developed countless courses and exercises as a certified HSEEP planner and provides realistic, customized experience for all clients.

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Instructor Bios

Barry Lindley

Senior chemist with Emergency Response Solutions, SPSI, and MMR. He is a NBFSPQ Level I and II fire instructor, HAZMAT Technician, Branch Officer, and Branch Safety Officer. He was formerly with DuPont and Chemours for 37 years. He is a team leader, safety officer, chemist, and instructor. Barry is the Chairperson for IFSTA's Hazardous Materials Publications Committee for Awareness, Operations and Technician. He is also a member of the National Fire Protection Association (NFPA) 470 technical committee. Barry has co-authored five books on Forensic Investigator Safety and Street-Smart Chemistry.

Michael Vacco

Mike has been with the Spring Lake Park Fire Dept. for over 22 years and is currently a Captain on the volunteer side, He has been a member of the North Metro Chemical Assessment Team for 20 years as a Technician and Monitors Specialist. Since September of 2023, he has been with Bay West, an Environmental Cleanup company based in Minnesota, were he does training, safety and hazmat spill response. He also teaches Hazmat for Anoka Hennepin Technical College, Century College, and the University of Minnesota. He is certified by the State of Minnesota as an Instructor II, Fire Officer II, Fire apparatus operator, Fire Fighter II, Hazmat Technician, and Master EVT Technician. Mike has taught at several Hazmat Conferences and done air monitoring for professional football and baseball games, along with air monitoring of the courthouse of a major criminal case.

Kevin Ziegler

Kevin is a Captain in Special Operations for the Minneapolis Fire Department. and a 26-year member of the MFD and is assigned to Hazmat Company, Ladder 9 A-Shift. Captain Ziegler is the Minneapolis FD State Team Coordinator for MFD and Minneapolis North Metro HMRT, State Hazmat Response Team. He is also a 21-year member of MN TF-1 USA&R and is a Rescue Squad Leader. Captain Ziegler also an instructor with Safety Training and Response Strategies, conducting training in Hazmat, Technical Rescue, High Angle Rescue, Confined Space and Trench. He has been deployed to Katrina, 35W Bridge Collapse, and various other hazmat and Technical Rescue incidents and has worked in support of Super Bowl LII, MLB All-Star Game and other events.

Mark Vedder

Mark is a 50+ year veteran of the fire service, recently retiring as the Fire Chief for Solon Fire-Rescue in Solon, Ohio, He continues as the part-time Assistant Fire Chief with the Chagrin Valley Fire Department, and has been Hazmat Coordinator for the Chagrin/SE Hazmat Team in Cuyahoga County, Ohio for over 35 years. He serves on the Cuyahoga County LEPC and chairs the Ohio Hazardous Materials Technical Advisory Committee. He has a Bachelor of Science in Fire Safety Engineering from the University of Cincinnati and is an Ohio Fire Service Instructor, Paramedic Instructor, Advanced Hazmat Life Support Instructor and Hazmat/WMD Technician Instructor. He has presented at the IAFC Hazmat Conference, the OH Hazmat Conference, the NYS Hazmat Conference, PA State Hazmat Conference, Boston Fire Academy and the FLA Hazmat Conference. Mark also serves on the IFSTA Hazardous Materials Publications Committee for Hazmat Technician.

Ron Huffman

Ron is a 30+ veteran of the fire service in both career and volunteer departments, retiring as a Battalion Chief from New Castle FD (IN). He has also served as the Henry Co EMA Director and Chairman of the LEPC. He worked for 14 years in the propane industry specializing in bulk plant, bulk truck and transport repair and rebuilds. In 1989, he founded Responder Training, Inc. and has since traveled the US teaching Emergency Response to Propane Incidents, Flaring Operations, Emergency Water Injection and Tank/Cylinder Leak Management at conferences and for fire departments and hazmat teams. He also manufactures specialty response propane kits.