



State of Delaware

18th Annual Hazardous Materials Training Workshop



Workshop Training Sessions

Course Descriptions and Instructor Information

Friday, May 09, 2025

7:15 am – 8:30 am: Registration and Continental Breakfast

8:30 am– 3:45 pm: Training Sessions

Delaware State Fire School

1461 Chestnut Grove, Dover, DE 19904

See Separate Course Descriptions for Classes to be held Thursday, May 08, 2025

“Educating Responders for Today and Tomorrow”



Sessions “1” and “8” (8:30 am – 3:45 pm)

“Monitoring for First Responders”

Instructor: Scott Russell

This course focuses on the First Responder and how to use a meter properly, understand the readings they see, and the implications of such on emergency responses. It is estimated that a majority of first responders can turn a meter on but have no idea what the readings mean when it alarms, nor the knowledge of the changing situation as a meter begins to register readings putting them at significant risk.

Today’s First Responder training is deficient in Air Monitoring and the use of the basic 4-Gas meter, at all levels of Awareness, Operations and Technician training courses. The Meter Guys Air Monitoring course is designed to fill this void and bring quality SME training to your organization. Students will participate in Lecture, Case Studies, and Hands-On meter training involving DOT transported chemicals. Upon completion of this course the First Responder will learn about calibration and bump testing importance, and peak readings, STEL, and fresh air calibration.

Through our program the student will learn about each individual sensor in the 4-Gas Meter (LEL, O₂, CO, H₂S) so they better understand what their meter is telling them while on an emergency response on highway tanker accidents, as well as gas leaks, confined space, CO and other calls where first responder safety could be at risk. They will understand and physically experience the meter alarms during the course with meters that are brought with us for your First Responders to use. We also will be happy to review your meters during this class. By bringing our own meters we spare you the problem of having to recalibrate your meters due to the amount of chemicals we expose the meters to during class. If you want us to use your meters during the class, we will be happy to do so understanding your meters will need calibration at the end of the class.

This course is not designed to make the First Responder (Awareness/Operations) an offensive responder but to better prepare the member to detect the presence of danger to ensure the safety of their crew and the public. Furthermore, The Meter Guys instills the need for air monitoring to promote safety and health and help prevent Firefighter Cancers.

This course is a self-contained course in which we arrive with everything to teach the class. Many classes require the host to provide equipment for the training. Frequently, this equipment is not usable for teaching, it is in ill repair, does not work, has dead batteries, hasn’t been calibrated, etc. and the list goes on. Many departments have very few meters which hampers training, this course shows why they need a meter, and how to use it! Furthermore, if your department does not have meters this provides an opportunity for you to learn more about them and hopefully justify why you need meters on your rigs.

With this concept the Meter Guys are committed to there being 1-2 students at the most per meter. We have watched many training classes with 4-8 students plus huddled around one meter at a table. This type of training is not conducive to learning how to use a lifesaving piece of equipment and why we bring our cache of meters to you for training.

Instructor Bio:

Scott Russell is a 30-year Veteran of the Baltimore County Fire Department. He began his career as a Paramedic in 1994 and retired in 2024 as a Captain of the Hazardous Materials Response Team. He also retired from the Air Force after 27 years of service as a Lieutenant Colonel with the Delaware Air National Guards 142nd Aeromedical Evacuation Squadron. His duties were Aeromedical Evacuation of wounded. He deployed nine times in support of four different overseas contingencies. He also performed Disaster/Emergency planning with the Air National Guard specializing in Hurricane evacuation/disaster response. His education consists of an AA Emergency Medical Services, BS in Nursing, and a MS in Disaster/Emergency Management. His love is First Responder training and instilling the basics through his Safety Through Knowledge™ concepts; his company creates training focused on the responder with the principles of STK™ and the KISS (keep it simple stupid) concept. He is passionate about First Responder training, getting off the computers and training hands on in person. His goal is to promote Survival and Safety on incidents and to prevent Cancer in first responders. He also founded the non-profit organization Society of One America’s Defenders which is dedicated to building houses for combat wounded Veterans.

Session “2” (8:30 am – 11:45 am)

“Patient/victim “CBRNE (Chemical, Biological, Radiological, Nuclear, High Yield Explosive) Decontamination – Classroom and Practical Evolutions”

Instructor: *Joe Leonetti, New Castle County Hazmat/Decon Team Leader and Staff*

Students will review the Incident Command System (ICS) and how it relates to the decontamination process. Students will become familiar with and learn how to effectively use the standardized Personal Protective Equipment used by all hospital’s EMS and First Responders. Decon Procedures and guidelines will be reviewed so that all students can safely operate in the Hazard Control Zones. **NOTE:** This is a FULL morning 3-hour class. Hospital attendees who wish to receive DE State Fire School CEU credit must attend both Session A- Patient/victim CBRNE Decontamination and Session G Animal Decontamination, for a total of 6 hours. This will serve as Hospital Hazmat Refresher training per hospital regulations. Other (non-hospital) attendees may register for either session.

Instructor Bio:

Joe Leonetti, New Castle County Hazmat/Decon Team Leader

Joe has been a member of the Delaware Fire Service for over 58 years. He has served as a Firefighter/EMT, Captain, Assistant Chief, Deputy Chief, Fire Chief and President of the Elsmere Fire Company. Joe is an instructor for the National Fire Academy, the New Mexico Tech Energetic Materials program, and with the Delaware State Fire School. Joe currently is a Commissioner with the Delaware State Fire Commission. Joe is a United States Army veteran. Joe has been the Team Leader of the New Castle County Special Operations Hazmat/Decon Team for the past 40 years. He serves on numerous State and County Hazardous Materials and Homeland Security committees.

Joe formerly served as the New Castle County Emergency Management Coordinator and the Sr. Director of Support Operations for the Saint Francis Hospital in Wilmington, Delaware. Joe currently works for the State of Delaware, Department of Public Health, Office of Emergency Medical Services Preparedness Section as a Special Projects Planner.

Sessions “3” and “10” (8:30 am – 3:45 pm)

“Risk Based Response to Alternative Fuel Vehicle Emergencies, Part 1 & 2”

Instructor: *Hazard Three*

This course will prepare personnel to conduct a risk-based response to incidents involving a compressed natural gas (CNG). including leaks and fires. The course will be delivered in 6 hours and can be tailored for personnel trained to the hazmat operations or technician level. Attendees will participate in lectures, discussion, case studies, and conduct hands-on.

COURSE TOPICS:

- CNG fuel system components
- Common incidents and hazards
- CNG commercial and passenger vehicles
- Risk-based response considerations
- Emergency shut down methods
- CNG damage assessment
- Depressurizing and defueling tactics
- CNG vehicle fires

Instructor Bio:

Sessions “4” and “11” (8:30 am – 3:45 pm)

“Everything Leaks” Parts 3 & 4

Instructors – *Darryl Meade and Mike Edwards*

This course is set into four different sessions where each session will require students to repair or transfer various containers and leaks. Session one will deal with small packages and piping. Session two will deal with IBC and special fittings for transfers. Session three will work on DOT tank trucks, And Session four will work on Railcars. As the title says. Everything will leak. Students will get hands on training with the leaks and hopefully will learn techniques for stopping the leaks.

Instructor Bios:

Darryl Meade:

Darryl Meade has over 40 years in the Fire Service. He currently serves as Assistant Chief for the FMC Company in Newark, Delaware. Meade is HAZMAT, Rope Rescue, Firefighter Pro Board-Certified Instructor II. Assistant Chief Meade has been an Instructor at the Delaware State Fire School over 20 years, a member of New Castle County Industrial Hazardous Materials Response Alliance and serves on its training committee. He serves as a trainer and is part of New Castle County Special Operations HazMat Decon Team. Meade served for Nottingham and Oxford townships as Radiological HAZMAT Officer. He formerly was a responder of the Chester County, PA HazMat Response Team, and was past member of West Grove Fire Company. He is currently a member of Chesapeake City Fire Company, MD.

Mike Edwards:**Sessions “5” and “12” (8:30 am – 2:30 pm)****“Biological Warfare Agents (BWA): From the Past to the Present and What Does It Mean For Our Future and a New Kid on the Block”**

Instructor: *Carrie A. Poore, Ph.D., Advanced CBRNE Training Branch Chief, Biologist, Research and Operations Directorate, DEVCOM Chemical Biological Center (CBC) at Edgewood*

This course will provide an overview of traditional biological warfare agents such as bacteria, viral materials and toxins. In depth case studies from various biological agent events throughout history. Both naturally occurring and bad actor biological examples will be discussed. Students will be shown simulated laboratory processes that could be employed by bad actors to enhance visual recognition of the most-likely synthesis routes for clandestine and sophisticated preparation of biological agents. Instructor will place special emphasis on the clandestine synthesis and terrorist employment of biological agents. In addition, future methodologies for the genetic manipulation of biological materials will be proposed. At the conclusion of the biological portion of the talk (mid-afternoon), a new chemical threat agent will be introduced and discussed.

Instructor Bio: *Carrie A. Poore, Ph.D., Advanced CBRNE Training Branch Chief, Biologist, Research and Operations Directorate, DEVCOM Chemical Biological Center (CBC) at Edgewood*

Dr. Poore serves as the Branch Chief for the Advanced CBRNE Training Branch within the Directorate of Research and Technology for the U.S. Army Combat Capabilities Development Command Chemical Biological Center. She has over 16 years of postgraduate experience at ECBC. As the Branch Chief, she leads the execution of training programs and also trains the biology portions of the courses for customers throughout Department of Defense, Department of Justice, Department of State, National Guard Bureau and other federal, state, and local assets involved in the counter-WMD fight. Dr. Poore led the training program for the 20th Support Command’s Heavy Mobile Expeditionary Laboratory that covered the entire suite of analytical instrumentation, shelter, and supporting equipment. She also has experience in the development of biological agent detection platforms and has evaluated existing bio detection systems including: a DHS funded program for the development of a microtiter screening tool for the screening of biological agents in suspicious powders, an FDA funded method of validation study for the detection of biological material in various food matrices using electrochemiluminescence, a Smiths Detection funded *Ricinus communis* DNA method evaluation, and a DHS funded evaluation of three generic screening tools for the analysis of biological agents in suspicious powders. She had the lead scientific role in the development of several mobile laboratories and kits for the following customers: 20th Support Command DNA Identification Lab, New York City Public Health All Hazards Receipt Facility (BSL-2/3), Defense Threat Reduction Agency (DTRA) Divable Chem/Bio Sampling Kit, and DTRA Biological Assessment Mobile Laboratory (BAML). She operated and validated the BAML as the lead biologist during an Advanced Test Demonstration.

Sessions “6” and “13” (8:30 – 3:45 pm)**“Risk Based Response to Battery Emergencies Parts 1& 2”**

This 6-hour course includes classroom and hands-on training to prepare responders to conduct risk-based response to battery emergencies for multiple types of batteries including Lithium-Ion (Li-Ion). The course covers batteries found in transportation including passenger vehicles, ground transport, air and sea shipping, as well as residential, commercial, and industrial settings.

COURSE TOPICS

- Battery construction and chemistry
- Recognition and identification
- Understanding direct current (DC)
- Battery hazard and risk assessment
- Recognizing and responding to thermal runaway
- Response considerations
- Air monitoring
- Battery fire strategy and tactics

Instructor Bio:

Tobias Frost

Toby Frost began working in the hazmat industry in 1987 as a remediation project manager in university and industrial settings. After transitioning to commercial construction, he joined the fire service in 1999. Toby Frost is currently a Battalion Chief with the Lafayette Fire Department in Indiana. He is a Team Leader for their HazMat Team and is the founder of their Illicit Lab Response Team. He is a department instructor for fire fighters, recruits, and local industry teaching fire science, technical rescue and hazardous materials. He is a continuing lecturer at Purdue University in the School of Natural Resources and Environmental Sciences. He has presented across the country at hazmat conferences including the IAFC International Hazardous Materials Conference, The Hot Zone, and at the Fire Department Instructors Conference (FDIC). In 2018, Toby was recognized by the IAFC Hazardous Materials Committee with their “Level A” Award and in 2019, the “In the Zone Award”, at the Houston Hot Zone Conference. As a contract instructor Toby has helped train federal, state and local responders across the country and internationally, including at the National Fire Academy. Toby serves as a HazMat Manager and Rescue Specialist for FEMA -INTF-1. Toby is a principal member of the NFPA Hazardous Materials Committee and a current Board Member for the Indiana Alliance of Hazardous Materials Responders. Toby is a graduate of Eastern Kentucky University with a BS in Fire Science Engineering Technology and a graduate of the NFA Executive Fire Officer Program. Toby is a Training Program Manager for Safeware, Inc./Hazard 3.

Sessions “7” and “14” (8:30 – 3:45 pm)

“Anhydrous Ammonia Parts 1 & 2 - Taming The Tiger In The Tank - Tactics and Response For Anhydrous Ammonia”

Instructor: Dave Binder and Staff

Get prepared to handle ammonia incidents from start to finish, beginning with an overview of anhydrous ammonia properties, transportation/containers, types of releases, trouble shooting incidents, and response recommendations, control and containment tactics from both offensive and defensive perspectives. Lessons learned will be discussed through brief illustrations of case histories involving both stationary facilities and transportation incidents as well as live release training footage.

Following a drill and safety briefing, the second half of the day will be on the drill field with live agent (anhydrous ammonia) release training, primarily performing tarp and cover operations for control and containment.

All students will receive a customized guide card for anhydrous ammonia which follows the sequence of a hazmat incident and provides specific reminders and information for anhydrous ammonia responses.

Instructor Bio:

David Binder is the Director of Quality, Safety & Regulatory Affairs and the Training Director of the Ammonia Safety & Emergency Response Training (ASERTSM) 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 and emergency response working groups.

David is the Chair of the Philadelphia, PA Local Emergency Planning Committee. He has served in leadership positions with the Alliance for Chemical Distribution (former National Association of Chemical Distributors) including the Responsible Distribution Committee. David serves on the National TRANSCAER Task Group and chaired the curriculum committee that put together the Anhydrous Ammonia training program.

David is a long-time faculty member of Global Cold Chain Alliance Institute programs including those at the University of Oklahoma, Georgia Institute of Technology (Georgia Tech University), University of California – Los Angeles (UCLA), and Arizona State University.

Session “9” (12:30 pm – 3:45 pm)

“Animal Decontamination – Classroom and Practical Evolutions”

Instructor: Joe Leonetti, New Castle County Hazmat/Decon Team Leader and Staff

Students will set up a proper a Decon area and understand the need for Decon for service and comfort animals, that may arrive to your facility or Decon area after a hazardous materials incident. The class will demonstrate the proper and safe handling of animals during the decontamination process. Emergency and full decontamination operations will be discussed.

