8 Hr. Annual Hazwoper Refresher Course Agenda
For Portland Water Bureau, December 2021
Provided by CADRE Lead Instructor: Dave Kummerlowe, CHMM, CIT and
CADRE Hazmat Instructor: Bill Terrill (brief resumes attached)

2.0 hours: Hands On Competency Based training, see attached agenda:

4.0 to 5.0 hours: Pre-Class assignment completed by each individual and submitted to CADRE, elements include:

1. recognition, labeling, location of hazards on site
2. NFPA 704, GHS, SDS's, Container shape and size, DOT hazard class
3. manufacturer emergency contact information
4. symptoms of exposure, first aid
5. synonyms and trade names
6. state found on site, how and where stored
7. Emergency Life Support Apparatus
8. Handheld gas detectors (calibration, bump test, capabilities)
9. Personal Protective Equipment including don/doff/decon
10. Self Contained Breathing Apparatus (capabilities/limitations)
11. Group exercises based on potential realistic scenarios encountered at the facility" (recognition, appropriate response actions)

2.0 hours: Zoom review meeting managed by CADRE, review of pre-class assignment with a focus on scenarios potentially encountered at ea. facility

Dave Kummerlowe: CADRE President, Lead Instructor

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Professional Experience:

Dave has over 36 years of ongoing professional full time hazardous materials, confined space, fall protection, response plan development, disaster response, and safety experience. He provides high quality technical assistance, training and consulting to over 300 industrial, municipal, state and federal clients throughout North America. Prior to that he was the safety & health officer for a HAZMAT emergency response team routinely responding to incidents throughout the U.S. and an original member of the NOAA CAMEO development team. He co-developed and presented 24 ea. 40 hr. courses in portable air monitoring instrumentation to 6 different States. He routinely consults with industrial and government clients enhancing their Health & Safety programs including development of Action Plans, Operating Procedures, orientation videos and contractor/visitor training compliance materials. He mentored two individuals who are excelling in separate careers as a Special Operations Paramedic and Bio-Tech Safety Director. Through his company educational non-profit he supported a single mother who found full time employment as a substance abuse counselor.

Ongoing Field Experience:

Dave regularly provides confidential assistance to industrial clients who are responding to internal hazardous materials & confined space projects and volunteers as a technical advisor to law enforcement clandestine drug lab teams & fire department hazmat teams.

Publications include:

He was the principal author of the original WA State Dept. of Ecology SAFETRAC system, a comprehensive field oriented competency program for hazmat responders. He was the project manager and developed Guidelines for Determining Oil Spill Volume in the Field in use by several States. He developed the Bucket Chemistry training program used by the International Association of Fire Fighters Operations and Technician Hazmat Training Programs. He has published peer reviewed scientific papers on how to safely mitigate illegal cylinders containing toxic gases associated with clandestine drug laboratories.

Education & Certifications:

Dave holds a degree in Chemistry and current certifications as a CHMM (Certified Hazardous Materials Manager) and a CIT (Certified Instructional Trainer). Previous certifications include Oceangoing Deck Officer, Professional Scuba Diver/Divemaster & Emergency Medical Technician.

Bill Terrill: CADRE Lead Instructor

Professional Experience

Bill has over 30 years of professional Fire service experience encompassing time spent in military, industrial and municipal depts. Bill has over 23 years of experience with industrial and municipal hazardous materials response teams. He has responded to and helped successfully mitigate drug labs, industrial site releases, and both railway & highway incidents. Bill volunteers with Team Rubicon responding to disasters throughout the US and serves in a leadership position within the Incident Command System. He also volunteers providing

Covid vaccines through Portland area clinics. Bill likes to pull practical jokes on colleagues and clients in particular, if Dave gets blamed.

Education and Certifications

USAF Fire School, Oregon Firefighter 1 and 2, Oregon Apparatus Operator/Pumper Operator, Oregon EMT–B, Oregon Hazardous Materials Technician

CADRE, PWB Hazwoper Refresher Hands On Competency Checklist
November-December, 2021

SCBA: Identify Components
frame and harness
high pressure hose
MMR with holder on belt
Red bypass knob
Cylinder, valve, gauge, hydro test date
Cylinder pressure at least 4,000 psi, recommended 4,500 psi
facepiece, nose cup, head harness & straps, HUD display

SCBA: Demonstrate Operation
Low pressure alarm activates when cylinder valve is opened
Cylinder and regulator gauges within 10%
Close cylinder valve – confirm low pressure alarm activates at 1125 psi

SCBA: Demonstrate inspection
Facepiece, HUD, UltraElite XT commuincations System, 2nd stage regulator, 1st stage regulator, High Pressure hose connector to cylinder, High pressure hose, Cylinder and valve assembly, carrier and harness, battery compartment

SCBA: Demonstrate Donning
Don unit in under 1 minute using coat method
Negative pressure check on face piece
Function of red bypass knob
Function of HUD and meaning of display lights

SCBA: Demonstrate Doffing and Storage
Vent pressure from system
Facepiece straps extended and facepiece properly cleaned & stored
SCBA stowed properly
Notification procedure if unit requires attention

Emergency Shower: Discuss and Explain:
Explain emergency shower by explaining components and procedure to operate
Discuss how it can be used to decontaminate PPE

Personal Protective Equipment:
Demonstrate ability to inspect and reject PPE that is not fit to wear
Demonstrate proper donning and doffing of Level B
Demonstrate disposable glove removal
Discuss the use of minimal amounts of duct tape
Suit over gloves on wrists
Suit over boots on cuffs
Attached hood, zipper flap

Eye protection, face shields still require eye protection (glasses or goggles)
Demonstrate a method to confirm that PPE has been properly decontaminated

MX6 5 gas meter:
Demonstrate understanding of when MX6 is ready for use, docking station lights
Demonstrate knowledge of calibration and bump testing
Calibration required on monthly basis
Bump testing required prior to use
Use of meter
Turn meter on
Pump leak test
Use of Extension hose and filter, delay of at least 2 sec per foot
Normal readings for all 5 gases
Action to be taken if alarm activates for ea. of the 5 gases
Turn meter off and return to docking station

ELSA respirator: (applies to Headworks, not Groundwater)
Identify components including hydro test date
Demonstrate and verbalize
air pressure on cylinder in the green
pulling out clear hood
Demonstrate donning of ELSA in under one minute
Simulate actual IDLH emergency Evacuation
Identify predetermined meeting place
Confirm how to replace/recharge ELSA cylinder & rated pressure