

HAZMAT TEAM EQUIPMENT LIST

The following equipment list is required to maintain certification as a Hazmat Team in Pennsylvania. ONLY those items identified as (Recommended) are optional. All other items are required.

References - Current edition required - No more than one edition or two years out of date. The electronic version, CD or hard drive, is authorized if on-site printer capability is available.

Item #	Description	Yes	No	Remarks
1.	Jane's Chem-Bio Handbook Second Edition ISBN# 0-7106-2568-5			
2.	Tempest CB-FRG (Chem-Bio) First Responder Guidebook			
3.	NIOSH Pocket Guide to Chemical Hazards (CD)			
4.	North American Emergency Response Guidebook (ERG-2000) ISBN: 0-16-050173-3 (Free)			
5.	CHRIS Hazardous Chemical Data Manual (CD) (2000) Serial Number 79-19080			
6.	Irving Sax Manuals (Set) (CD) 10th Edition (2000) ISBN 0-471-35407-4			
7.	ACGIH Threshold Limit Values Guidebook (CD)			
8.	Brethericks Handbook of Reactive Chemical Hazards (CD)			
9.	Merck Index (CD) 13th Edition (2001) ISBN # 0911910131			
10.	Chemical Dictionary (CD) Hawley's 14th Editions (2001) ISBN # 0-471-055336			
	Matheson Gas Book & First Aid			
11.	Crop Protections Handbook (CD) (2003) ISBN # 9992695463			
12.	Emergency Care For Haz Mat Exposure, or, HazMat Injuries			
13.	AAR/BOE Field Guide to Tank Car Identification			
14.	Bureau of Explosives: American Railroad Emergency Action Guide (2003) BE220			
15.	GATX Tank Car Manual			
16.	D.O.T. Radiation Emergency Handbook, June 1999			
17.	B.O.E. Emergency Handling of Hazardous Materials in Surface Transportation (CD) (2003) BE305 79- 19160			
18.	Large regional map, topographical (USGS) and Highway Maps, County and City Maps			
19.	List of SARA facilities' addresses with specific location directions in the hazmat team's service area inclusive index of MSDS information			
20.	ESF #10 Hazardous Materials Response			

	Plan/Resource list			
21.	NFPA Fire Protection Guide of Hazardous Materials 13th Edition: ISBN# 087765400X			
22.	Firefighters Guide to Hazardous Materials			
23.	NFPA Emergency Management of Hazardous Materials Incidents			
24.	EPA List of Lists, Consolidated List of Chemicals			

Personal Protective Equipment

Item #	Description	Yes	No	Remarks
1.	Chemical Protective Clothing (CPC) Level "A" as defined in NFPA 471, Responding to Hazardous Materials Incidents, Chapter 7 Regardless of type of suits, a minimum of 5 each must be immediately available on response unit (2 for entry, 2 for back-up and 1 spare)			
2.	Leak test kits for level "A" suits. If suits are not tested by a third party			
3.	CPC Level "B" as defined in NFPA 471, Responding to Hazardous Materials Incidents, Chapter 7 Minimum of 24 suits			
4.	CPC Level "C" as defined in NFPA 471, Responding to Hazardous Materials Incidents, Chapter 7			
5.	Flash Cover Protective Suits Amount should be based on entry team members			
6.	Positive pressure, 60-minute duration SCBA's, (minimum of 5)			
7.	NIOSH approved air purifying respirators, full-face with select cartridges			
8.	NIOSH approved air-purifying respirators, full-face with select cartridges Chemical resistant gloves (Neoprene, Nitrile, Butyl, Viton, disposable, leather, surgical, cryogenic)			
9.	Disposable foot covers			
10.	Chemical resistant boots			
11.	Hard hats (Safety or construction type - not fire helmet)			
12.	Safety glasses and goggles with side shields			
13.	Coveralls			
14.	Hearing Protection for high level noise areas (plugs, muffs, etc.)			

Physical Methods of Mitigation

Item #	Description	Yes	No	Remarks
1	Basic Patch Kits (Edwards-Cromwell or equivalent)			
2.	Plug and dike material Assorted plugs and wedges (wood)			
3.	Chlorine "A" Kit			
4.	Chlorine "B" Kit			
5.	Chlorine "C" Kit (Optional if no rail service in response or mutual aid area)			
6.	Over-packs and Recovery drums, Lab pac's (Assorted sizes and quantities)			
7.	Rolled Visqueen/PVC/plastic sheeting			
8.	Transfer equipment			(Recommended)
9.	Vacuum			(Recommended)
10.	Mercury spill containment			(Recommended)

Chemical Methods of Mitigation

1.	Quantities of neutralizer Acid - minimum 50 pounds (or equivalent) Caustic - minimum 50 pounds (or equivalent)			
2.	Assortment of selective and non-selective booms, socks, bag sheets, pillows, pads, etc. for use as absorbent and adsorbent materials			
3.	Foam solution, foam concentrates or water additives required to neutralize, minimize vapor release: quantity based on available resources, risk and transportation commodities within the region			(Recommended)

Suppression Equipment (chemical and metals)

1.	ABC dry chemical extinguisher 20#			
2.	Purple K - 30# extinguisher			
3.	Class D agent - 2/30# minimum 1 ea MTL-X or 1ea LITHIX for lithium fires and an identified resource of large amounts of Class D agents, sand or dirt for large/industrial-type fires			

Tools - It is required that non-sparking tools be used where applicable.				
Item #	Description	Yes	No	Remarks
1.	Assortment of basic sockets, wrenches, hammers, pliers, screwdrivers, brushes, drill bits, saws, etc.			
2.	Grounding equipment/bonding equipment			
3.	Hand Truck/Drum Dolly			
4.	Hydraulic power rescue tool with assorted attachments (available to teams through mutual aid)			
5.	Drum opener			
6.	Shovels - Round-point or square-point, non-sparking			
7.	Saws, Axes and Pry bars			
8.	Web strapping			
9.	Axes: pick-head			
10.	Easy out stud extractor (for broken or sheared bolts)			
11.	Rake			
12.	Bolt cutters			(Recommended)
13.	Crowbars			(Recommended)
14.	Come-a-long (pulley)			(Recommended)
15.	Assorted cribbing			(Recommended)
16.	Scissors			(Recommended)
17.	Funnels, miscellaneous sizes, types			(Recommended)
18.	Measuring tape, 100 foot			(Recommended)
Monitoring and Detection Equipment				
*Not required if a higher-level capability is available to detect the presence of nerve and blister agents, and this substitution is authorized by the inspection team.				
Item #	Description	Yes	No	Remarks
1.	Multi-gas detector			
2.	Radiological monitors (low range, alpha, beta, gamma) (CDV's are not a substitute)			
3.	pH paper/meter			
4.	Heat scanner/Thermal Imagers (available through immediate dispatch or mutual aid)			
5.	Thermometers - air, surface and liquid			
6.	Assortment of sampling containers (plastic and glass)(Recommended)			
7.	Photoionization Detector (PID)			
8.	M-8 Detection Paper or equivalent for chemical agent (weapons grade) detection			*
9.	M-9 Detection Paper (Roll) or equivalent for			*

	chemical agent (weapons grade) detection			
10.	M-256A1 Detector Kit or equivalent for chemical agent detection (weapons grade; blister: CX/HD/L, blood: AC/CK, and nerve: GB/VX)			*
11.	M-18A2 Chemical Agent Detector Kit for surface and vapor chemical agent analysis (GB, CG, HE, L, and AC) or equivalent colorimetric detector tubes			*
12.	Access to gas chromatographic system for analysis: (DEP, Civil Support Team or RCTTF)			
13.	Drum sampler			
14.	PCB Kit			
15.	Haz Cat Kit or equivalent			(Recommended)
Decontamination Equipment - Capability to perform Physical and Chemical decontamination. If a higher level of capability is available, it must be available at time of certification inspection.				
1.	Solution ingredients, miscellaneous			
2.	Brushes, synthetic			
3.	Hand Pump/spray devices			
4.	Stools, no-back chairs or benches			
5.	Containment pools, tarps or equivalent			
6.	Hoses/nozzles (Assorted sizes)			
7.	Tent or comparable item			
8.	Water temperature control device (water heater)			(Recommended)

<u>Communications Equipment</u>				
Item #	Description	Yes	No	Remarks
1.	Capability for Hazmat Team Chief to communicate with the: Incident Commander <u>and</u> County Emergency Management <u>and</u> Coordinator (EMC) or 9-1-1 Emergency Operations Center. If capability does not exist, a Command Post with this capability must be simultaneously dispatched with the team.			
2.	Capability for Hazmat Team Chief to communicate with all Entry Team Members and Branch Chiefs			
3.	Capability for each Entry Team member to communicate with at least the Back-up entry team. Communication systems must be <u>intrinsically safe</u> . The radio must meet the requirements of Underwriters Laboratories Inc®.			
4.	Capability for all Entry Team members to communicate with each other. Communication systems must be <u>intrinsically safe</u> . The radio must meet the requirements of Underwriters Laboratories Inc®			
5.	Alert pagers or other personal alerting system dispatch capabilities/units			
6.	Mobile telephone			(Recommended)
7.	Fax machine with transmit and receive capability under current subscription for access to recognized system			(Recommended)
<u>Special Equipment</u>				
1.	On-Scene Weather Station to Measure Temperature, Wind Direction and Speed, Relative Humidity			
2.	Binoculars			
3.	Digital or Polaroid-style instant camera			
4.	Flashlights (explosion proof) with extra batteries			
5.	First aid kit			
6.	Barricade tape, 2-color			(Recommended)
7.	Traffic cones			(Recommended)
8.	Various office supplies (pens, markers, paper, tags)			(Recommended)
9.	Plastic bags (various sizes)			(Recommended)
10.	1/2" and 3/4" synthetic rope			(Recommended)
11.	Drinking water container/ice chest			(Recommended)

<u>Vehicles</u>				
1.	Response van(s) or trailer(s) capable of carrying all equipment On-board self-sustaining power system or availability of dedicated power generation system to immediately provide power at the scene of incident			
2.	Sufficient quantities of vehicle(s) to carry equipment and personnel to incident, and to provide on-board service for hazmat team members			