Typing Policies for Florida's Hazardous Materials Resources

April 26, 2005

Developed in conjunction with

The Florida Domestic Security Taskforce
&
The State Emergency Response Commission

Florida Fire Chiefs' Association
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RESOURCE: HAZMAT RESOURCE TYPING				
CATEGORY:	HazMat (ESF #10)		**KIND:**	Team
MINIMUM CAPABILITIES:		**TYPE II HAZMAT RESOURCE (WMD/ HAZMAT RESOURCE)**	**TYPE III HAZMAT RESOURCE (TOXIC INDUSTRIAL CHEMICAL RESOURCE)**	**TYPE IV ASSET (PERSONNEL ASSET ONLY)**
Component	**Metric**			
Personnel	Staffing	There shall be a minimum of **15** hazardous materials technicians in this response to function as follows: • HM Officer/Supervisor/ Team Leader (1) • Safety Officer (1) • Reference Officer (1) • Logistics Officer (1) • Medical Personnel/ Toxmedic (2) • Entry Team Leader (1) • Entry Team (3) • Backup/RIT Team (2) • Decon Leader (1) Decon personnel (2)	There shall be a minimum of **7** hazardous materials technicians in this response to function as follows: • HM Officer/Supervisor/ Team Leader (1) • Safety Officer (1) • Entry Team (2) • Backup/RIT Team (2) • Decon Leader (1)	There shall be a minimum of **7** hazardous materials technicians in this response to function as follows: • HM Officer/Supervisor/ Team Leader (1) • Technicians (6)
Team	Safe and Effective Response Operation Incidents	Enhanced Hazardous Materials Response Team that is capable of responding to and mitigating WMD related incidents. 8 team members will respond immediately upon dispatch. 7 team members will be responding with 1 hour.	Standard Hazardous Materials Response Team. All team members will respond immediately upon dispatch.	Manning asset. Used to enhance or support Type II or III teams.
Team	Areas of Specialization	Trained in the presumptive recognition and identification of chemical/bio WMD substances	Trained in presumptive testing of toxic industrial agents.	Trained in the presumptive recognition and identification of chemical/bio WMD substances
Personnel	Training	All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA Standard # 471, "Recommended Practice for Responding to Hazardous Materials Incidents," NFPA Standard # 472, "Standard for Professional Competence of Responders to Hazardous Materials Incidents," and NFPA Standard # 473, "Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents," as is appropriate for the specific team type	All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA Standard # 471, "Recommended Practice for Responding to Hazardous Materials Incidents," NFPA Standard # 472, "Standard for Professional Competence of Responders to Hazardous Materials Incidents," and NFPA Standard # 473, "Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents," as is appropriate for the specific team type	All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA Standard # 471, "Recommended Practice for Responding to Hazardous Materials Incidents," NFPA Standard # 472, "Standard for Professional Competence of Responders to Hazardous Materials Incidents," and NFPA Standard # 473, "Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents," as is appropriate for the specific team type
Team	Sustainability	Capable of operating for a 12-hour Period. Teams are to be 72 hour self-sustainable.	Capable of operating for a 8-hour Period. Teams are to be 72 hour self-sustainable.	Capable of operating for a 24-hour Period based on whether supporting Type II or III. Teams are to be 72 hour self-sustainable.

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	Field Testing	**(Known Chemicals, Unknown Chemicals; Known or Suspect Weapons of Mass Destruction Chemical/Biological Substances [WMD Chem/Bio])** The presumptive testing and identification of chemical substances using a variety of sources to be able to identify associated chemical and physical properties. Sources may include printed and electronic reference resources, safety data sheets, field testing kits, specific chemical testing kits, chemical testing strips, data derived from detection devices, and air-monitoring sources	**(Known Chemicals; Unknown Chemicals)** The presumptive testing and identification of chemical substances using a variety of sources to be able to identify associated chemical and physical properties. Sources may include printed and electronic reference resources, safety data sheets, field testing kits, specific chemical testing kits, chemical testing strips, data derived from detection devices, and air-monitoring sources	**Not applicable**
	Air Monitoring	**(Basic Confined Space Monitoring Specific Known Gas Monitoring; WMD Chem/Bio Aerosol Vapor and Gas)** The use of advanced detection equipment to detect the presence of known or unknown gases or vapors. The basics begin with ability to provide standard confined space readings (oxygen deficiency percentage, flammable atmosphere Lower Explosive Limit [LEL], carbon monoxide, and hydrogen sulfide). Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and may directly identify by name a specific flammable or toxic vapor. This includes WMD Chem/Bio detection Instruments	**(Basic Confined Space Monitoring; Specific Known Gas Monitoring)** The use of advanced detection equipment to detect the presence of known or unknown gases or vapors. The basics begin with ability to provide standard confined space readings (oxygen deficiency percentage, flammable atmosphere Lower Explosive Limit [LEL], carbon monoxide, and hydrogen sulfide). Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and may directly identify by name a specific flammable or toxic vapor	**Not applicable**
	Sampling: Capturing Labeling Evidence Collection	**(Known Industrial Chemicals; Unknown Industrial Chemicals; WMD Chem/Bio)** Known and unknown industrial and potential CBRNE chemicals' for Public Safety Testing only. Able to sample solids, gases and liquids.	**(Known Industrial Chemicals; Unknown Industrial Chemicals)** Known and unknown industrial chemicals' for Public Safety Testing only. Able to sample solids and liquids.	**Not applicable**
	Radiation Monitoring/ Detection	**(Alpha Detection; Beta Detection; Gamma Detection)** The ability to accurately interpret readings from the radiation-detection devices and conduct geographical survey search of suspected radiological source or contamination spread. Identify and establish the exclusion zones after contamination spread (this does include identification of some, but not all, radionuclide). Ability to conduct environmental and personnel survey. Basic criteria include detection and survey capabilities for alpha, beta, and gamma. Ensure all members of survey teams are equipped with accumulative self-reading instruments (dosimeters)	**(Alpha Detection; Beta Detection; Gamma Detection)** The ability to accurately interpret readings from the radiation-detection devices and conduct geographical survey search of suspected radiological source or contamination spread. Basic criteria include detection and survey capabilities for alpha, beta, and gamma	**Not applicable**

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	Protective Clothing: Ensembles	**(Vapor-Protective CPC; Weapons of Mass Destruction (WMD) Vapor-Protective CPC; Flash Fire Vapor-Protective CPC; Liquid Splash-Protective CPC; WMD Liquid Splash-Protective CPC)** Chemical protective clothing (CPC), which includes complete ensembles (suit, boots, gloves) and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed. Levels of CPC vapor protection are: Vapor-Protective, Flash Fire Protective option for Vapor-Protective, and Chemical/Biological-Protective option for Vapor-Protective, all of which must be compliant with National Fire Protection Association (NFPA) Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies" current edition. Level of CPC liquid protection is: Liquid Splash-Protective, which must be compliant with NFPA Standard # 1992, "Standard on Liquid Splash Protective Ensembles and Clothing for Hazardous Materials Emergencies", current edition.	**(Vapor-Protective CPC; Flash Fire Vapor-Protective CPC; Liquid Splash- Protective CPC)** Chemical Protective Clothing (CPC), which includes complete ensembles (suit, boots, gloves) and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed. Levels of CPC vapor protection are: Vapor-Protective, and Flash Fire Protective option for Vapor-Protective both of which must be compliant with NFPA Standard # 1991, "Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies," current edition. Level of CPC liquid protection is: Liquid Splash-Protective, which must be compliant with NFPA Standard # 1992, "Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies, current edition	**Structural Fire Fighting Ensemble**
	Technical Reference	**(Printed and Electronic; Plume Air Modeling; Map Overlays; WMD Chem/Bio)** Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic devices and chemical testing procedures. At a minimum, technical references will have the ability to outsource additional capabilities and have one source for air-modeling capability	**(Printed and Electronic; Plume Air Modeling; Map Overlays)** Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic devices and chemical testing procedures. At a minimum, technical references will have the ability to outsource additional capabilities and have one source for air-modeling capability	**Not applicable**
	Special Capabilities	**(Gloves and Other Specialized Equipment Based on Local Risk Assessment; Heat Sensing Capability; Light Amplification Capability; Digital Imaging Documentation Capability)** Additional resources that augment the capabilities of the team	**(Gloves and Other Specialized Equipment Based on Local Risk Assessment; Heat Sensing Capability; Light Amplification Capability)** Additional resources that augment the capabilities of the team	**Not applicable**

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	Intervention	**(Diking; Damming; Absorption; Liquid Leak Intervention; Neutralization; Plugging; Patching; Vapor Leak Intervention WMD Chem/Bio Agent Confinement)** Employment of mechanical means of intervention and control such as plugging, patching, off-loading, and tank stabilization; Environmental means such as absorption, dams, dikes, and booms; Chemical means such as neutralization and encapsulation of known and unknown industrial chemicals. Mechanical means include specially designed kits for controlling leaks in rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems. Advanced capabilities should include ability to intervene and confine incidents involving WMD Chem/Bio substances	**(Diking; Damming; Absorption; Liquid Leak Intervention; Neutralization; Plugging; Patching; Vapor Leak Intervention)** Employment of mechanical means of intervention and control such as plugging, patching, off-loading, and tank stabilization; Environmental means such as absorption, dams, dikes, and booms; Chemical means such as neutralization and encapsulation of known and unknown chemicals. Mechanical means include specially designed kits for controlling leaks in rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems	**Not applicable**
	Decontamination	**(Known Contaminants Based on Local Risk Assessment; Unknown Contaminants; WMD Chem/Bio)** Must be self-sufficient to provide decontamination for members of their team. Capable of providing decontamination for known and unknown contaminants and WMD Chem/Bio.	**(Known Contaminants Based on Local Risk Assessment; Unknown Contaminants)** Must be self-sufficient to provide decontamination for members of their team. Capable of providing decontamination for known and unknown contaminants.	**Not applicable**
	Communications	**(In-Suit; Wireless Voice; Wireless Data; Satellite phones with data capabilities; Wireless video; Secure Communications)** Personnel utilizing CPC shall be able to communicate appropriately and safely with one another and their team leaders	**(In-Suit; Wireless Voice; Wireless Data)** Personnel utilizing CPC shall be able to communicate appropriately and safely with one another and their team leaders	**Not applicable**
Comments	FEMA Team Typing Ref#	Exceeds FEMA Type I Team Requirements	Exceeds FEMA Type III Team Requirements	**Does not meet FEMA Type III Team Requirements**
COMMENTS				