

## URBAN SEARCH AND RESCUE (US&R) TASK FORCE

<b>DESCRIPTION</b>	An Urban Search and Rescue (US&R) Task Force is a multi-disciplined organization which conducts search, rescue, and recovery in the technical rescue disciplines to include: structural collapse, rope rescue, vehicle extrication, machinery extrication, confined space (permit-required, non-cave, non-mine), trench, excavation, and water operations in a US&R environment.
<b>RESOURCE CATEGORY</b>	Search and Rescue
<b>RESOURCE KIND</b>	Team
<b>OVERALL FUNCTION</b>	<p>An US&amp;R Task Force performs the following functions:</p> <ol style="list-style-type: none"> <li>1. Conducts search, rescue, recovery, including: <ol style="list-style-type: none"> <li>a. Wide-area search</li> <li>b. Structural collapse assessment, search, rescue, and rigging in light through heavy frame construction, including reinforced concrete</li> <li>c. Associated technical rope rescue (including highlines)</li> <li>d. Confined space search and rescue (permit-required, non-mine, non-cave)</li> <li>e. Trench and excavation rescue</li> <li>f. Mass transportation vehicle rescue (subway, rail, bus, etc.)</li> <li>g. Supporting the transport of service or companion animals with persons rescued</li> </ol> </li> <li>2. Coordinate and conduct search and rescue response efforts for all hazards, including locating, accessing, medically stabilizing, and extricating survivors from the damaged structures area</li> <li>3. Operates in environments with and without infrastructure, including compromised access to roadways, utilities, transportation, and limited availability for shelter, food, and water</li> <li>4. Type 1, 2, and 3 Task Forces are capable of operations in heavy frame, reinforced concrete, high-angle rope rescue (including highline systems), confined space rescue (permit required), trench/excavation, wide area search, stillwater/flood water operations, and mass transportation (subway, rail, bus, etc.) rescue</li> <li>5. The Type 1 and Type 2 task force are capable of continuous 24-hour operations which can split into two 12-hour operational period teams, whereas Type 3 is capable of heavy operations for 12-hour operational periods and may be paired with another Type 3 team to form a Type 2 operational component</li> <li>6. Type 4 is capable of limited light to moderate operations in frame and concrete construction, rope rescue, confined space rescue, wide area search</li> <li>7. Not equipped as ambulance service, or to transport humans or animals to shelter or other locations</li> </ol>

## Resource Typing Definition for Mass Search and Rescue Operations Search and Rescue

### COMPOSITION AND ORDERING SPECIFICATIONS

1. Type 1 and Type 2 Task Forces can operate in two 12 consecutive hour shifts, with ½ the Task Force operating per shift, and Types 3 and 4 Task Forces can operate in one 12 hour shift. All types of US&R Task Forces are self-sustaining for 72 hours and deployable for up to 14 days
2. Requestor/Agency Having Jurisdiction (AHJ) and resource provider must address, prior to deployment, certain needs, including:
  - a. Communications beyond the resource's intra-team communications (such as programmable inter-operable communications with command, logistics, military, etc.)
  - b. Type of incident, such as confined space, and terrain, and water conditions
  - c. Type of construction and collapse conditions per US&R definitions of Heavy, Medium, and Light
  - d. Additional specialized personnel, such as advanced medical, animal search and rescue, boat operators and bowman, logistics, advisors or helicopter support, or for unique operating environments
  - e. Additional transportation or specific vehicles, boats, trailers, drivers, mechanics, equipment, supplies, and fuel, etc.
  - f. Any additional aviation support, such as helicopter or fixed wing
  - g. Tools, hardware, software, ropes, and survivor evacuation equipment that is beyond what is listed for this resource
  - h. Contaminated environments, and related personal protective equipment (PPE), respiratory protection, clothing, and equipment.
  - i. Logistics support needs for this resource (security and force protection, lodging, transportation, meals, etc.)
3. The requestor must specify if the incident necessitates a Hazardous Materials (HazMat) and/or Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) response and ensure that the resource provider deploys the US&R Task Force equipped with the additional HazMat and/or CBRNE specific equipment to perform structural collapse operations in an environment requiring Level B PPE for at least 12 hours
4. Task Force relies on local emergency medical infrastructure for patient hand-off
5. Operations in SAR environments may be recognized as immediately dangerous to life and health (IDLH), per ASTM International (ASTM) F2890 Standard Guide for Hazard Awareness for Search and Rescue Personnel. The requesting entity must consider the need for additional recognized capability or endorsement

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	70	70	35	22	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	Same as Type 2	2 - NIMS Type 1 US&R Task Force Leader (TFL)  One US&R TFL may be assigned during an incident as a deputy.	1 - NIMS Type 1 US&R Task Force Leader	1 - National Incident Management System (NIMS) Type 2 US&R Task Force Leader	Not Specified

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COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>CAPABILITIES PER TEAM</b>	Same as Type 2 PLUS: Deploys a CBRNE functional HazMat capability, to include appropriate Level B PPE that can perform operations in a structural collapse contaminated environment for at least 12 hours and capable of being extended up to an additional 24 hours when augmented with additional equipment. Level B PPE is included for response to CBRNE incidents.	Same as Type 3 PLUS: Capable of continuous 24-hour operations which can split into two 12-hour operational period Task Forces.	Same as Type 4 PLUS: 1. Performs in heavy reinforced masonry structures 2. Performs functions of heavy rigging, structural assessment 3. Capable of performing operations in a stillwater/flood water environment 4. Capable of operating one 12-hour shift	1. Performs in light or medium construction 2. Performs functions of rescue, search, medical, logistics, planning, and safety in structures, including limited operations in hazardous materials (HazMat) or contaminated environments 3. Capable of operating one 12-hour shift	Level B and Level C PPE as defined by the following regulation Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.120
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - SAFETY</b>	Same as Type 2	2 - NIMS Type 1 Safety Officers	Same as Type 4	1 - NIMS Type 1 Safety Officer	Not Specified
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - SEARCH</b>	Same as Type 2	2 - NIMS Type 1 Structural Collapse Search Team Leaders, who are also trained consistently to the level of the NIMS Type 1 Canine Search Specialist - Disaster/Structural Collapse Live	1 - NIMS Type 1 Structural Collapse Search Team Leader, who is also trained consistently to the level of the NIMS Type 1 Canine Search Specialist - Disaster/Structural Collapse Live	Not Specified	NIMS Type 1 Structural Collapse Search Team Leader is consistent with the position description for FEMA US&R Search Manager within the National US&R Response System.
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - COLLAPSE SEARCH TECHNICIANS</b>	Same as Type 2	2 - NIMS Type 1 Structural Collapse Search Technician	1 - NIMS Type 1 Structural Collapse Search Technician	Not Specified	NIMS Type 1 Structural Collapse Search Technician is consistent with the position description for FEMA US&R Structural Collapse Search Specialist within the National US&R Response System.
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - CANINE SEARCH</b>	Same as Type 2	4 - NIMS Type 1 Canine Search Specialists, Disaster/Structural Collapse - Live with canine	2 - NIMS Type 1 Canine Search Specialists, Disaster/Structural Collapse - Live with canine	Not Specified	A Canine Search Specialist(s), Disaster/Structural Collapse - Human Remains and additional Canine Search Specialist(s), Disaster/Structural Collapse - Live can be requested and deployed as separate single resource(s) based on the needs of the specific mission.

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COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - RESCUE</b>	Same as Type 2	<p>2 - Rescue Team Manager 4 - NIMS Type 1 Structural Collapse Rescue Team Leaders 20 - NIMS Type 1 Structural Collapse Rescue Technicians</p> <p>All of the above personnel maintain currency as NIMS Type 1 Structural Collapse Rescue Technicians.</p> <p>14 of the 70 task force personnel must also maintain currency consistent with NFPA 1006 Chapter 11 (Level 2).</p>	<p>1 - Rescue Team Manager 2 - NIMS Type 1 Structural Collapse Rescue Team Leaders 10 - NIMS Type 1 Structural Collapse Rescue Technicians</p> <p>7 of the 35 task force personnel must also maintain currency consistent with NFPA 1006 Chapter 11 (Level 2).</p>	<p>2 - NIMS Type 1 Structural Collapse Rescue Team Leaders 10 - NIMS Type 1 Structural Collapse Rescue Technicians</p> <p>A minimum of two of the above personnel also maintain currency as NIMS Type 1 Structural Collapse Search Technicians.</p>	NIMS Type 1 Structural Collapse Rescue Team Leaders are consistent with the position description for FEMA US&R Rescue Squad Officers. NIMS Type 1 Structural Collapse Technicians are consistent with the position description for FEMA US&R Structural Collapse Rescue Specialist within the National US&R Response System.
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - HAZMAT</b>	<p>Same as Type 2 PLUS</p> <p>Deploys a CBRNE functional HazMat capability, to include appropriate Level B PPE that can perform operations in a structural collapse contaminated environment for at least 12 hours.</p> <p>Personnel must maintain the training and skills on equipment necessary in an environment requiring Level B PPE, consistent with 29 CFR 1910.120, in order to perform operations in a CBRNE or contaminated environment.</p>	<p>2 - NIMS Type 1 HazMat Officers 8 - NIMS Type 1 HazMat Technicians</p>	<p>1 - NIMS Type 1 HazMat Officer 4 - NIMS Type 1 HazMat Technicians</p>	2 - NIMS Type 1 HazMat Technicians	All types of US&R Task Forces perform limited operations in hazardous materials or contaminated environments. Hazardous materials capability is limited to one operational period of 12 hours and is limited to defensive operations. The Type 1 is also capable of a 12 hour operational period in a CBRNE environment and capable of being extended up to an additional 24 hours when augmented with additional equipment. Level B and Level C PPE as defined by 29 CFR 1910.120 and consistent with NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents or equivalent.
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - HEAVY RIGGING</b>	Same as Type 2	2 - Heavy Equipment Rigging Specialist	1 - Heavy Equipment Rigging Specialist	Not Specified	Not Specified

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COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - MEDICAL</b>	Same as Type 2	2 - Medical Team Managers 4 - Medical Specialists  The Medical Team Managers are licensed physicians who are emergency medicine residency trained and/or Board-certified in emergency medicine and actively practicing clinical emergency medicine and having experience with pre-hospital medical care OR be a currently licensed physician with current ACLS, ATLS and PALS certification (or equivalent) whose medical activities include clinical medicine and/or pre-hospital care.	1 - Medical Team Manager 2 - Medical Specialists  The Medical Team Manager is a licensed physician who is emergency medicine residency trained and/or Board-certified in emergency medicine and actively practicing clinical emergency medicine and having experience with pre-hospital medical care OR be a currently licensed physician with current ACLS, ATLS and PALS certification (or equivalent) whose medical activities include clinical medicine and/or pre-hospital care.	2 - NIMS Type 1 Paramedics, who are also trained in collapse compartment syndrome.	Medical care within the Task Force is primarily to care for Task Force members and survivors being extricated or rescued. Medical professionals are licensed by the appropriate licensing authority for the AHJ.
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - LOGISTICS</b>	Same as Type 2	2 - Logistics Team Manager 4 - Logistics Specialists	1 - Logistics Team Manager 2 - Logistics Specialists	2 - Logistics Specialists	Not Specified
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - COMMUNICATIONS</b>	Same as Type 2	2 - NIMS Typed Incident Communications Technicians	Same as Type 4	1 - NIMS Typed Incident Communications Technician	Not Specified
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - PLANNING</b>	Same as Type 2	2 - Plans Team Manager 2 - Technical Information Specialist	1 - Plans Team Manager 1 - Technical Information Specialist	1 - Plans Team Manager, who is also qualified to serve as a Technical Information Specialist	Not Specified
<b>PERSONNEL PER RESOURCE SPECIFIC FUNCTION/CAPABILITIES - STRUCTURAL COLLAPSE ASSESSMENT</b>	Same as Type 2	2 - Structures Specialist	1 - Structures Specialist	Not Specified	Not Specified

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COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>COMMON-AREA FUNCTIONS PERSONNEL PER RESOURCE</b>	Same as Type 3	Same as Type 3	Same as Type 4 PLUS Includes use of water vehicles for support if deployed to water or water-related disaster events.	1. Provides for the following basic Incident Command System (ICS) functions: <ol style="list-style-type: none"> <li>Safety of the Task Force personnel and operations</li> <li>Medical care of Task Force personnel and those being rescued</li> <li>Logistics: small repairs of small equipment and incident logistics support</li> <li>Plans Task Force level tactics</li> <li>Camp shelter if needed</li> <li>Full field decontamination of personnel</li> </ol> 2. Provides basic ground support for helicopter operations and possibly greater 3. May include use of ground vehicles and aircraft for support	Not Specified
<b>EQUIPMENT PER RESOURCE TECHNICAL</b>	Same as Type 3	Same as Type 3	The Type 3 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	Minimum criteria for technical equipment includes: <ol style="list-style-type: none"> <li>Search cameras</li> <li>Listening devices</li> <li>Mapping, Global Positioning System (GPS), and other victim locating equipment</li> </ol>	Refer to FEMA US&R Cache lists for further detailed equipment guidelines.

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<b>EQUIPMENT PER RESOURCE RESCUE</b>	Same as Type 3	Same as Type 3	<p>Same as Type 4 PLUS</p> <p>Concrete breaching and breaking equipment including concrete saws, jack hammers, and concrete drills and hammer drills.</p> <p>The Type 3 Task Force must be equipped at 100% of the FEMA US&amp;R Type 1 guideline.</p>	<p>Minimum criteria for rescue equipment includes:</p> <ol style="list-style-type: none"> <li>Shoring equipment for wood and prefabricated metal shoring, including saws and other construction equipment</li> <li>Concrete lifting and stabilization equipment</li> <li>Heavy rigging equipment for crane operations</li> <li>Rope rescue equipment for high-angle, low-angle, and confined space rescue</li> <li>Vehicle and machinery extrication equipment including air bags and hydraulic rescue equipment</li> </ol>	Refer to FEMA US&R Cache lists for further detailed equipment guidelines.
<b>EQUIPMENT PER RESOURCE SURVIVOR EXTRACTION SYSTEM</b>	Same as Type 3	Same as Type 3	The Type 3 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	<p>Minimum criteria for survivor extraction system equipment includes:</p> <ol style="list-style-type: none"> <li>Litter basket or similar</li> <li>Litter wheel</li> <li>Adjustable bridle</li> <li>Patient harness system</li> </ol>	<ol style="list-style-type: none"> <li>Each response or mission may necessitate additional specialized equipment, such as water operations equipment.</li> <li>Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>
<b>EQUIPMENT PER RESOURCE MEDICAL</b>	Same as Type 2	The Type 2 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	The Type 3 Task Force must be equipped at 50% of the FEMA US&R Type 1 guideline.	Minimum criteria includes: medical equipment and pharmaceuticals necessary to care for entrapped victims and injured rescue personnel.	Refer to FEMA US&R Cache lists for further detailed equipment guidelines.

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COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>EQUIPMENT PER RESOURCE HAZARDOUS MATERIALS</b>	<p>Same as Type 2 PLUS</p> <p>Equipped with Level B PPE in order to operate in a structural collapse contaminated environment for up to 12 hours and capable of being extended up to an additional 24 hours when augmented with additional equipment. Level B PPE is included for response to CBRNE incidents.</p> <p>Refer to the current FEMA US&amp;R Equipment Cache List for CBRNE-specific equipment.</p>	<p>Same as Type 3 PLUS</p> <p>The Type 2 Task Force must be equipped at 100% of the FEMA US&amp;R Type 2 guideline.</p>	<p>Same as Type 4 PLUS</p> <p>Equipped with Level C PPE in order to operate in a structural collapse environment. PPE must include limited self-contained respiratory protection for rescue personnel working in confined spaces and for personnel providing rapid intervention capabilities.</p> <p>Includes limited decontamination equipment of at least a gross decontamination wash and personal shower for rescue personnel.</p> <p>The Type 3 Task Force must be equipped at 50% of the FEMA US&amp;R Type 2 guideline.</p>	<p>Minimum criteria includes; atmospheric monitors and decontamination equipment necessary to conduct safe search and rescue operations.</p>	<ol style="list-style-type: none"> <li>1. All types of US&amp;R Task Forces perform limited operations in hazardous materials or contaminated environments.</li> <li>2. Hazardous materials capability is limited to one operational period of 12 hours and is limited to defensive operations. The Type 1 is also capable of a 12 hour operational period in a CBRNE environment and is capable of being augmented with additional equipment and supplies to perform operations for an additional 24 hours.</li> <li>3. Level B and Level C PPE must be consistent with the requirements defined in 29 CFR 1910.120 and 29 CFR 1910.146.</li> <li>4. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>
<b>EQUIPMENT PER RESOURCE SAFETY</b>	<p>Same as Type 2</p>	<p>The Type 2 Task Force must be equipped at 100% of the FEMA US&amp;R Type 1 guideline.</p>	<p>The Type 3 Task Force must be equipped at 50% of the FEMA US&amp;R Type 1 guideline.</p>	<p>Minimum criteria for safety equipment includes; defensive water safety equipment and electric current detectors.</p>	<ol style="list-style-type: none"> <li>1. Each response or mission could necessitate additional specialized equipment, such as water operations equipment.</li> <li>2. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>
<b>COMMUNICATIONS EQUIPMENT PER RESOURCE</b>	<p>Same as Type 2</p>	<p>The Type 2 Task Force must be equipped at 100% of the FEMA US&amp;R Type 1 guideline.</p>	<p>The Type 3 Task Force must be equipped at 50% of the FEMA US&amp;R Type 1 guideline.</p>	<p>Minimum criteria for communications equipment includes:</p> <ol style="list-style-type: none"> <li>1. Portable radios, programmable or on-incident frequencies</li> <li>2. Handi-mikes or earphones/headsets</li> </ol>	<ol style="list-style-type: none"> <li>1. The local Incident Command should determine interoperability within the incident, including with aircraft.</li> <li>2. Intra-team and inter-team communications should be consistent with the National Interoperability Field Operations Guide (NIFOG).</li> <li>3. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>



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<b>EQUIPMENT PER RESOURCE PERSONAL PROTECTIVE EQUIPMENT</b>	The Type 1 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	The Type 2 Task Force must be equipped at 100% of the FEMA US&R Type 2 guideline.	The Type 3 Task Force must be equipped at 50% of the FEMA US&R Type 2 guideline.	Minimum criteria for PPE includes: <ol style="list-style-type: none"> <li>1. Helmets, headlamps, batteries</li> <li>2. Eye and hearing protection</li> <li>3. Breathing protection to include supplied air breathing apparatus and limited quantities of self-contained breathing apparatus</li> <li>4. Uniform/protective clothing</li> <li>5. Gloves</li> <li>6. Footwear</li> <li>7. Deployment/travel pack</li> <li>8. Initial attack pack</li> <li>9. Personal medical kit</li> <li>10. Survival kit</li> <li>11. Other necessary field packs or gear</li> <li>12. Foul weather clothing</li> </ol>	<ol style="list-style-type: none"> <li>1. Each response or mission could necessitate additional specialized equipment, such as water operations equipment.</li> <li>2. Personal protective equipment is addressed by the following standards: American National Standard Institute (ANSI) Z359: Fall Protection Code; National Fire Protection Association (NFPA) 1983: Standard on Life Safety Rope and Equipment for Emergency Services or equivalent; PPE is also addressed by the following regulation Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.146 Permit-Required Confined Spaces.</li> <li>3. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>
<b>EQUIPMENT PER RESOURCE WATER OPERATIONS</b>	Same as Type 2	The Type 2 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	The Type 3 Task Force must be equipped at 50% of the FEMA US&R Type 1 guideline.	Not Specified	<ol style="list-style-type: none"> <li>1. Each response or mission could necessitate additional specialized supplies.</li> <li>2. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>
<b>MEDICAL SUPPLIES PER RESOURCE</b>	Same as Type 2	The Type 2 Task Force must be equipped at 100% of the FEMA US&R Type 1 guideline.	The Type 3 Task Force must be equipped at 50% of the FEMA US&R Type 1 guideline.	Not Specified	<ol style="list-style-type: none"> <li>1. Each response or mission could necessitate additional specialized supplies.</li> <li>2. Refer to FEMA US&amp;R Cache lists for further detailed equipment guidelines.</li> </ol>

## NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability. The AHJ may require additional capabilities and endorsements for unique working environments.

## REFERENCES

1. FEMA, NIMS 509-2: Incident Communications Technician
2. FEMA, NIMS 509-2: Safety Officer
3. FEMA, NIMS 509-4: HazMat Officer
4. FEMA, NIMS 509-4: HazMat Technician
5. FEMA, NIMS 509-8: Canine Search Specialist – Disaster/Structural Collapse Live
6. FEMA, NIMS 509-8: Canine Search Specialist – Disaster/Structural Collapse Human Remains
7. FEMA, NIMS 509-8: Structural Collapse Rescue Team Leader
8. FEMA, NIMS 509-8: Structural Collapse Rescue Technician
9. FEMA, NIMS 509-8: Structural Collapse Search Team Leader
10. FEMA, NIMS 509-8: Structural Collapse Search Technician
11. FEMA, NIMS 509-8: US&R Task Force Leader
12. FEMA, National US&R Response System, 2011 Approved Task Force Equipment Cache List, March 2011
13. FEMA, National US&R Response System, Rescue Field Operations Guide, September 2006
14. FEMA, National US&R Response System, Operations Manual, September 2012
15. FEMA, National US&R Response System, Training Program Administration Manual, February 2013
16. American National Standard Institute (ANSI) A10.14 American National Standard for Construction and Demolition Operations - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use, latest edition adopted
17. ANSI Z359.1 American National Standard Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components, latest edition adopted
18. ASTM International (ASTM), F-2890-12 Standard Guide for Hazard Awareness for Search and Rescue Personnel, latest edition adopted
19. International Code Council, International Building Code
20. National Fire Protection Association (NFPA) 1983 Standard on Life Safety Rope and Equipment for Emergency Services, latest edition adopted
21. NFPA 1006: Standard for Technical Rescuer Professional Qualifications, latest edition adopted
22. NFPA 1670: Standard on Operations and Training for Technical Rescue Incidents, latest edition adopted
23. NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, latest edition adopted
24. Occupational Safety and Health Administration (OSHA), 29 Code of Federal Regulations (CFR) 1910.120, Hazardous Waste Operations and Emergency Response
25. OSHA, 29 CFR 1910.134, Personal Protective Equipment
26. OSHA, 29 CFR 1910.146, Permit-Required Confined Spaces
27. U.S. Department of Homeland Security, Office of Emergency Communications (OEC), National Interoperability Field Operations Guide (NIFOG), v. 1.4, January 2014