DEPARTMENT OF HOMELAND SECURITY  
FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL  
URBAN SEARCH AND RESCUE  
RESPONSE SYSTEM

A Component of the National Response Framework  
Emergency Support Function # 9

June 2011  
STRUCTURES SPECIALIST  
POSITION DESCRIPTION
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FEMA National US&R Response System
Task Force Position Description
Structures Specialist

**Position Specific Requirements:**

The Structures Specialist is responsible for performing the various structural assessments for the task force during incident operations. The Structures Specialist reports directly to the Planning Team Manager.

**Description of Duties:**

The Structures Specialist is responsible for:

- Assessing the structural condition within the area of task force operations, which includes identifying structure types and specific damage and structural hazards
- Recommending the appropriate type and amount of structural hazard mitigation in order to minimize risks to task force personnel
- Provide input to task force tactical action plans as appropriate
- Cooperating with and assisting other search and rescue resources
- Providing accountability, maintenance, and minor repairs for all issued equipment
- Performing additional tasks or duties as assigned during a mission
- Monitoring assigned structure for condition changes while rescue and recovery operations are proceeding
- Assuming an active role in implementing approved structural hazard mitigation as a designer, inspector, and possibly a supervisor
- Coordinating and communicating the structural related hazard mitigation with US&R IST Structural Unit Leader
- Performing additional tasks or duties as assigned
FEMA National US&R Response System
Task Force Position Description
Structures Specialist

**Position Requirements and Criteria:**

Individuals who meet the following requirements and criteria will be eligible to become Structures Specialists in the DHS/FEMA National US&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to task force personnel in the urban disaster environment.

**Required Training:**

The Structures Specialist shall:

1. Meet all Administrative and General Training requirements
2. Complete FEMA National US&R Response System GPS Awareness Level Course
3. Complete the FEMA USACE Structures Specialist Training (StS-1) Course
4. Complete all Technical Rescue Skill Sets as identified in Appendix A

**Other Specific Requirements:**

The Structures Specialist shall:

1. Be currently licensed as a Professional Engineer specialization in structures or *equivalent as sanctioned by the FEMA US&R Structures Sub-Group
   
   – and –

2. Have a minimum of 5 years experience in structure design and analysis to include evaluation of existing structures, field investigation or construction observation experience

* The criteria for qualifying as Equivalent to a P.E. are as follows:
  a. Graduation with B.S. in Civil Engineering (or similar curriculum) from a College or University recognized by a State Licensing Board
  b. Five years experience in any phase of Structural Engineering including the Teaching of subjects pertaining to Structures, Structural Safety and Structural Collapse
  c. A letter from their FEMA US&R Task Force expressing the support of TF Leadership and the Task Force Structures Specialists addressed to the FEMA US&R Structures Sub-Group Chair for consideration
  d. Individuals, who are licensed as Architects by any State may be considered as having equivalent certification, based on their qualifications and a & b above
FEMA National US&R Response System
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**Recommended Training:**

The Structures Specialist should:

1. Complete FEMA National US&R Response System Structural Collapse Technician Course (except for SCT01c)

2. Complete FEMA National US&R Response System Planning Team Training Course

3. Completion of FEMA/USACE Structures Specialist Training (StS-2) every 5 years

4. Completion of USACE StS Regional Training every 2 years

5. Complete FEMA National US&R Response System GPS Operations Level Course
Appendix A

Technical Rescue Skill Sets:

Minimum skill set recommendations for Task Force Personnel who enter the hazard zone, i.e. forward deployment:

- General Requirements of NFPA 1670
- Rope Rescue awareness per NFPA 1670*
- Trench Rescue awareness per NFPA 1670
- Duties of the Entrant per 29 CFR 1910.146

* Additional Required Rope Rescue skills;
  - Safety considerations during rope rescue operations
  - Characteristics of life safety rope and webbing
  - Application of rope rescue hardware specific to a lowering operation
  - Application of rope rescue hardware and software specific to a belay line
  - Assemble and apply a Class III harness
  - Assemble and apply a “Hasty Harness”
  - Tie a Simple Figure eight knot
  - Tie a Figure Eight follow-through knot
  - Tie an overhand follow-through with webbing
  - Attach a prusik loop to a rope
  - Be familiar with anchor systems
  - Be familiar with raising and lowering systems
  - Proficiency at attaching oneself to, and participating in a raising or lowering system
  - Proficiency at descending and ascending a fixed line, low angle