

*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**

## **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

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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

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**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