

*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

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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
Task Force Position Description
Structures Specialist**

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

FEMA National US&R Response System
Task Force Position Description
Structures Specialist

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