

FEDERAL EMERGENCY MANAGEMENT AGENCY

***NATIONAL
URBAN SEARCH AND RESCUE
RESPONSE SYSTEM***

**A Component of the National Response Plan
Emergency Support Function # 9**



FEMA

**HAZARDOUS MATERIALS SPECIALIST
POSITION DESCRIPTION**

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

General Requirements

1. Must be able to meet the physical requirements of the sponsoring agency with or without accommodations.
2. Must be available on short notice to mobilize within six hours of request and be self-sufficient for at least 72 hours for a response assignment of up to 10 days in austere environments.
3. Must be capable of improvising and functioning for long hours under adverse conditions.
4. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contra-indication to Diphtheria), Hepatitis A & B, Measles/Mumps/Rubella (if born after 1957), and Polio.
5. Must be able to function safely at heights and on or around rubble.
6. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
7. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
8. Must have a working knowledge of FEMA's US&R Response System, organizational structure, operating procedures, safety practices, terminology, knowledge of all task force equipment, and communications protocols.
9. Must have successfully completed the First Responder Operations Level for Hazardous Materials as per OSHA Standard 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response.
10. Must be currently certified in America Heart Association (or equivalent) Cardiopulmonary Resuscitation - Basic Life Support.
11. Must have a working knowledge of the Incident Command System including successful completion of the IS-100, IS-200, IS-700 and IS-800 on-line courses.
12. Successful completion of the DHS/FEMA US&R Orientation Course or equivalent.
13. Successful completion of Respiratory Protection training and quantitative fit test per 29 CFR 1910.134
14. Successful completion of the DOJ Terrorism Awareness, Basic Concepts or equivalent.
15. Successful completion of the FEMA/US&R WMD Enhanced Operations
16. Successful completion of Awareness Level training per NFPA 1670 including;
 - Confined Space Operations
 - Water Rescue Operations
 - Structural Collapse Operations
17. Successful completion of Garmin V GPS Awareness Level course.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

18. Must understand the needs of and provide support to their counterparts within the task force for specific operations, techniques and application of tools and equipment.
19. Must possess training and experience in personal safety in US&R environments.
20. The authority having jurisdiction shall assure that the individual meets or exceeds the required knowledge, skills, and abilities (KSA's).

Position Specific Requirements

HAZARDOUS MATERIALS SPECIALIST

The Hazardous Materials Specialist is responsible for performing the various hazardous materials functions for the task force during incident operations. The Hazardous Materials Specialist reports directly to the Hazardous Materials Team Manager.

Description of Duties

The Hazardous Materials Specialist is responsible for:

- Providing an initial and ongoing survey (detection, monitoring and sampling) for and identification of the presence of hazardous materials at search and rescue sites.
- Directing decontamination procedures for any task force member or victim.
- Performing mitigation operations when indicated.
- Providing assistance and information to medical personnel regarding chemical exposure and injuries.
- Documenting all related information.
- Adhering to all safety procedures.
- Performing additional tasks or duties as assigned during a mission.

Position Requirements and Criteria

Individuals who meet the following requirements and criteria will be eligible to become Hazardous Materials Specialists in the FEMA US&R Response System. The intent of these requirements is to select personnel fully capable of providing competent hazardous materials assessments and advice to Task Force personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

Knowledge
Skills
Abilities

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

Knowledge

The Hazardous Materials Specialist:

1. Shall meet and maintain the requirements as a certified Hazardous Materials Technician as per OSHA Standard 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response.
2. Shall meet or exceed certification as a state or National Registry certified emergency medical technician.
3. Completed Basic Rescue Module (Appendix A) consisting of Confined Space (entrant), Basic Rope Rescue, and Trench awareness.
4. Shall meet and maintain the requirements for confined space entry in accordance with OSHA Standard 29 CFR 1910.146 Confined Space Entry Permit.
5. Shall meet and maintain the competencies in accordance with National Fire Protection Association standard 472 Standard for Professional Competence of Responders to Hazardous Materials Incidents to the level of Hazardous Materials Technician.
6. Shall successfully complete the FEMA/US&R WMD Considerations for Hazardous Materials Specialist course
7. Form conclusions based on Haz Mat assessment and make recommendations for dealing with Haz Mat in assigned rescue area.

Skills

The Hazardous Materials Specialist:

1. Must properly utilize the detection monitors and devices in the US&R cache
2. Must properly doff and don all personnel protective equipment in the US&R cache
3. Must be proficient with the set up and use of the decontamination system in the US&R cache
4. Must be proficient in building triage and US&R marking systems

Abilities

The Hazardous Materials Specialist shall be capable of:

1. Working well with technical experts, local officials, and other organizations.
2. Working together as a team to accomplish the tasks assigned by the Hazardous Materials Team Manager.
3. Working extended durations in CPC during disaster operations.
4. Analyze pertinent information relative to the presence of hazardous materials and make recommendations regarding mitigation techniques and personal protective equipment.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

General Operational Checklist

UPON ACTIVATION / AT TASK FORCE ASSEMBLY POINT

- Receive notification of assignment and instructions from the initiating organization.
- Establish communications with the appropriate supervisor.
- Monitor mission-related information from local sources such as radio and television.
- Review the personal equipment checklist.
- Ensure that you have personal daypack, ear plugs, and warm clothes for flight.
- Report to the assigned Assembly Point at the prescribed time.
- Forward an accurate Responder Information Sheet to the Medical Team Manager.
- Complete check-in procedures to include medical screening.
- Ensure that you receive any appropriate issue of gear (radio, functional vest, etc.) for the position.
- Participate in task force briefings and meetings as requested.
- Carry out assignments as directed.
- Must not be under the influence of illegal substances or alcohol for the duration of the deployment.

AT POINT OF DEPARTURE

- Participate in task force briefings and meetings as requested.
- Carry out assignments as directed.
- Ensure that electronic equipment is turned off prior to boarding aircraft.

IN TRANSIT

- Review the FEMA US&R Field Operations Guide for information pertinent to your position description, operational checklist, operational procedures, and safety procedures.
- Monitor mission-related information from local sources such as radio and television.
- Review disaster related information, as it becomes available.
- Take advantage of available travel time for rest prior to arrival.
- Carry out assignments as directed.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

ARRIVAL AT MOBILIZATION CENTER

- ❑ Participate in task force briefings and meetings as requested.
- ❑ Carry out assignments as directed.

ON-SITE OPERATIONS

- ❑ Ensure your physical readiness through proper nutrition, water intake, rest, and stress control techniques.
- ❑ Participate in the task force daily briefings and meetings as requested.
- ❑ Ensure use of all safety practices and procedures.
- ❑ Ensure proper equipment needs are met and equipment is operational prior to each work period.
- ❑ Carry out assignments as directed.
- ❑ Report any signs/symptoms of incident stress, injury, fatigue, or illness in yourself/coworkers to your immediate supervisor.
- ❑ Brief your shift replacement fully on all ongoing operations when relieved at work cycle rotations.
- ❑ Prepare appropriate reports (i.e. Unit Logs ICS-214, etc.).

REASSIGNMENT/DEMOBILIZATION

- ❑ Participate in the task force daily briefings and meetings as requested.
- ❑ Prepare personal belongings for demobilization.
- ❑ Carry out assignments as directed.
- ❑ Ensure the return of all items issued to you during the mobilization phase.
- ❑ Upon return, participate in the task force mission critique and incident stress management activities.
- ❑ Submit comments to your supervisor for inclusion in the after-action reports. This should include reviewing pertinent position descriptions, operational checklists, and procedures for recommended changes.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

Position Specific Operational Checklist

HAZARDOUS MATERIALS SPECIALIST

The purpose of this checklist is to define the duties and responsibilities of the Hazardous Materials Specialist during mission operations. The list is intended to be a general summary of actions. It should be understood that:

- 1) Some required actions may not be listed, but must be identified and assumed by this position.
- 2) Some actions may be the primary responsibility of another task force position, but may require assistance and coordination from this position.
- 3) The actions are listed in a general chronological order, but may require deviation.

UPON ACTIVATION / AT TASK FORCE ASSEMBLY POINT

- Gather relevant information on general hazardous material information in the affected area.
- Brief Task Force personnel on the general hazardous material considerations to be anticipated in the affected area.

AT POINT OF DEPARTURE

- See general operational checklist

IN TRANSIT

- See general operational checklist

ARRIVAL AT MOBILIZATION CENTER

- Identify cache supplies and equipment that should receive priority for initial movement to the assigned area.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

ON-SITE OPERATIONS

- Receive assignment from Hazmat Team Manager
- Conduct a local site survey for the assigned area and note the following:
 - Topography.
 - Prevailing weather conditions (i.e., present, 6-hour, 24-hour, and 72-hour forecasts).
 - Evidence of smoke, flame, vapor cloud, etc.
 - Visible structural damage to critical facilities.
- Identify local POC and the capacity to treat possible hazardous material exposure victims.
- Ensure availability of decontamination, in the event of contact, as appropriate for any task force personnel or victim. This may consist of a rapid emergency decontamination to be followed by a more thorough technical decontamination if indicated.
- Conduct a survey at specific rescue sites or other confined space areas to include:
 - Flammable, toxic and asphyxiating atmospheres.
 - Radiation levels.
 - Biological agents or contaminants.
 - Other specific products as indicated.
- Deny entry, unless appropriate protective action is taken, if the following conditions exist:
 - Any positive combustible gas indicator readings.
 - Oxygen levels below 19.5% or above 23.5%.
 - Any toxic material readings within 10% of its IDLH.
 - Obvious or perceptible fumes, odors, smoke, or vapor from a confined space, or where vision is obscured within five foot levels.
- Document all events and forward to the Hazardous Materials Team Manager. The following, as a minimum, are required:
 - Site survey.
 - Perimeter and entry readings.
 - Personal exposure forms.
- Verify meter readings with a second meter and different operator, if possible. All readings will be documented according to operator and meter unit number, and will denote the findings, time and location.
- Monitor ongoing working rescue sites as necessary. Provide technical assistance to the appropriate supervisory position.
- Keep the Hazardous Materials Team Manager apprised of any tactical accomplishments or conflicts, supplies deficiencies, or equipment malfunctions.

**National Urban Search & Rescue Response System
Hazardous Materials Specialist Position Description**

REASSIGNMENT/DEMOBILIZATION

- Notify the assigned supervisor of the loss or potential maintenance requirements of any assigned tools and equipment.

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
- Confined Space Rescue awareness per NFPA 1670
- Structural collapse awareness, 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 yourself to, and participating in a raising or lowering system
 - Proficiency at descending and ascending a fixed line, low angle