# **New York State Office of Fire Prevention and Control**

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# **New York State Office of Fire Prevention and Control**

#### INTRODUCTION

Recent events, such as the World Trade Center bombing and the Oklahoma City bombing have created a heightened awareness throughout this country of the need for technical rescue and more specifically urban search and rescue capabilities. These events, while profound in their impact, tend to overshadow the true need for training and response capabilities in all areas of technical rescue.

Although New York is small in comparison to some states, it has a wide range of geography types that create different potential problems. From the sandy, flat lands of Long Island to the rocky summits of the Adirondack Mountains, each region has the possibility of a major natural disaster that will exceed the present capabilities of our emergency services. Long Island and New York City have been in the path of a number of hurricanes, many portions of this state have experienced tornadoes, a portion of western New York and the Adirondack region sit on an earthquake fault that is considered overdue for a major quake and the entire state is susceptible to significant snow and ice storms that can result in significant structural loading as well as severe flooding from the snow melt. Any of these events can and have caused buildings to collapse, trapping occupants.

Because New York State is one of the most diverse states in the country with regards to population density, and each region has specific needs. The possibility of building collapse in our villages and cities to silo rescues in our agricultural areas to wilderness search and rescue in the Catskill and Adirondack mountains shows that we must have a diverse training and response capability.

In addition to the potential for natural disasters, acts of terrorism or unrest can occur not only in New York City but in the sparsely populated areas as well. Many people in the world view New York as the center of world economics and government. From Wall Street to the United Nations to the state capitol in Albany, those who want to make a statement to the world come here to be heard. Unfortunately, as was shown by the World Trade center terrorist attacks, those who want to be heard by creating death and disaster also find our state a good place to be heard.

Based on the desire that the State of New York should develop the capability for the provision of urban and technical search and rescue (U/TS&R) training and response capabilities, the following program has been developed to provide these services. Individuals with expertise in urban and technical search and rescue were recruited to assist with the development of this effort and their input was crucial to the training and response program being presented. Issues considered by the task groups included: a realistic balance of need, timeliness of response, appropriate operational capability, development of training programs which will provide for a high level of expertise while minimizing the time impact on the team members as well as a host of other issues. The following training and response program is the result of many months of work by these individuals and is what we believe to be is the most effective and reasonable approach to the problem.

#### RESPONSE LEVELS and TEAM CAPABILITIES

#### **New York State Office of Fire Prevention and Control**

There are 4 response levels that are to be included in this program. These levels are described as follows:

#### Basic Operational Level

The basic level represents the minimum capability to conduct safe and effective search and rescue operations at structure collapse incidents. Personnel at this level shall be competent at surface rescue which involves minimal removal of debris and building contents to extricate easily accessible victims. This level also includes basic rope rescue, confined space rescue operations as well as awareness training in other types of rescue including trench collapse, machinery entrapment, ice and water.

## Medium Operational Level

The medium level represents the minimum capability to conduct safe and effective search and rescue operations at structure collapse incidents involving the collapse or failure of light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. This level will also provide basic trench collapse response and intermediate (basic high angle) rope rescue capabilities.

#### Heavy Operational Level

The heavy level represents the minimum capability to conduct safe and effective search and rescue operations at structure collapse incidents involving the collapse or failure of reinforced concrete or steel frame construction. This level will also include advanced rope rescue, trench, and confined space capabilities.

### FEMA US&R Level

This response level is trained and equipped to respond at the heavy operational level with additional equipment and support services to enable the team to act without outside support or re-supply for a period of up to 72 hours.

Based on the projected and perceived level of need for U/TS&R capabilities in New York State, operational capability in all of the above response levels (pending additional funding) will be provided. Specifically, this will include:

- <u>Basic Operational Level</u> Many fire departments could be equipped and have at least some personnel trained to this level. A minimum of one department or team per county is desirable.
- <u>Medium Operational Level</u> One team per region. The goal of locating these teams would be to provide a response time of less than 3 hours by the team to any location within their assigned region. The establishment of these regions would ensure that all areas within the state are included within a response region. It is anticipated that this criteria would require the establishment of approximately 6 teams.
- <u>Heavy Operational Level</u> Two teams (upstate and downstate). The upstate team will be located in the Capitol District with the downstate team located to provide response for the lower Hudson Valley and Long Island regions. The possibility exists for a second team at this level being provided to handle the western portion of the state.
- <u>FEMA US&R Level</u> Continue to use the New York City team and other FEMA teams in the event conditions warrant.

### **TEAM SUPPORT**

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As with any program, the likelihood of long term success depends on the support the program receives. This support needs to come from all levels, both from above (municipalities and state government) and below (team members). This support takes many forms, both financial as well as technical. The following are some of the areas where OFPC will provide both initial as well as ongoing support to the local response teams:

## Team Support

Included are areas such as:

- 1) Equipment purchasing
- 2) Training
- 3) Evaluation and certification of teams and individuals

## Response Support

Included are areas such as:

- 1) Providing an Incident Support Team. The Incident Support Team would be a response team of specialists in the various major functional areas such as ICS, search, rescue, structural, communications and logistics. The purpose of this team would be to provide on-scene support to the local team as well as have the basic management team in place if the incident should require further mobilization of resources from inside and outside the initial response region.
- 2) Development of a response and team management manual (similar to the FEMA manual).

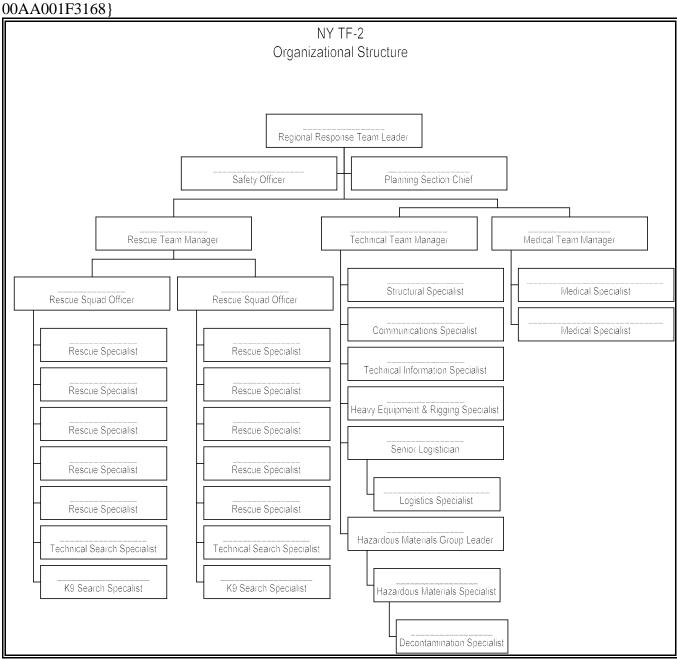
# Financial Support

The financial implications of a program of this size have the potential to be substantial depending on the number and configuration of teams as well as the development costs of the required training program. These training costs would include the equipment, program delivery and academy infrastructure improvements that will be necessary.

At present, a number of funding sources are being pursued and the success of these efforts will play a large part in the number, distribution and size of the teams participating in this program. It is the intent of the Office of Fire Prevention and Control to provide as much financial support to the teams as possible in areas such as training, equipment and personnel (for out of area response).

#### TEAM ORGANIZATION and POSITION DESCRIPTIONS

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# **REGIONAL RESPONSE TEAM LEADER**

The Regional Response Team Leader is responsible for managing and supervising all search and rescue activities of the regional response team during a mission assignment. The Regional Response Team Leader reports directly to:

The assigned Office of Fire Prevention and Control official during the mobilization and demobilization phases of the mission.

2. The appropriate local jurisdiction responsible authority or incident commander when assigned to a mission location.

# **Description of Duties**

- The Regional Response Team Leader is responsible for the development and implementation of the regional response team search and rescue action plan.
- The Regional Response Team Leader addresses the coordination and supervision of all regional response team activities.
- The Regional Response Team Leader directly supervises the following portions: Rescue Team Manager and Technical Team Manager; and also ensures adherence to all safety procedures.
- The Regional Response Team Leader is responsible for the determination of all regional response team organizational and logistical needs.
- The Regional Response Team Leader interacts with the Office of Fire Prevention and Control Liaison assigned to the regional response team for coordination of all regional response team support requirements.
- The Regional Response Team Leader receives briefing and situation reports and ensures that all regional response team personnel are kept informed of status changes.
- The Regional Response Team Leader provides situation reports, maintains records and reports and prepares performance evaluations.
- The Regional Response Team Leader performs 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 Regional Response Team Leaders in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising all aspects of the regional response team in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# **REGIONAL RESPONSE TEAM LEADER General Requirements and Criteria**

1. Must be at least 21 years of age.

#### **New York State Office of Fire Prevention and Control**

- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must understand and adhere to safe working practices and procedures as required in the urban disaster and technical rescue environment.
- 9. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# REGIONAL RESPONSE TEAM LEADER **Specific Requirements and Criteria**

- 1. Must have comprehensive knowledge of the Incident Command System; the NYS Disaster Response Plan; and the NYS and FEMA US&R Response System, its organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 2. Have a comprehensive knowledge of the regional response team functions and urban search and rescue operations, tactics, strategy and safety considerations.
- 3. Capable of effectively coordinating and directing multiple functions of the regional response team during mission assignment.
- 4. Possess strong skills in interpersonal relations.
- 5. Competent in the development and use of integrated action planning concepts and processes.
- 6. Possess good interagency coordination skills and work well with various technical components and other organizations.
- 7. Understand the broad range of other disaster response organizations.
- 8. Ability to effectively communicate orally and in writing.
- 9. Knowledge of the practical application of available technology used to support U/TS&R missions and objectives.
- 10. Able to be flexible, to improvise, to share information, resolve conflicts and solve problems.
- 11. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces And in below-grade, compromised conditions.

### **SAFETY OFFICER**

The Safety Officer is responsible for managing and supervising all search and rescue activities of the regional response team during a mission assignment. The Safety Officer reports directly to the regional response team leader.

## **Description of Duties**

- The Safety Officer is responsible for the development and implementation of the comprehensive safety and health program for the regional response team.
- The Safety Officer addresses the coordination and supervision of all regional response team safety activities.
- The Safety Officer directly advises the Regional Response Team Leader, Rescue Team Manager and Technical Team Manager with regard to adherence to all safety procedures.
- The Safety Officer is responsible for the determination of all regional response team organizational and logistical safety needs.
- The Safety Officer provides situation reports and maintains all health and safety related records and reports.
- The Safety Officer performs additional tasks or duties as assigned during a mission.
- The Safety Officer is responsible for the delivery of all safety training programs for the team.

#### **Position Requirements and Criteria**

Individuals who meet the following requirements and criteria will be eligible to become Safety Officers in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising all aspects of the regional response team health and safety program. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# **SAFETY OFFICER**

# **General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation - Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must understand and adhere to safe working practices and procedures as required in the urban disaster and technical rescue environment.
- 9. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

#### **SAFETY OFFICER**

# Specific Requirements and Criteria

- 1. Must have a comprehensive knowledge of the Incident Command System; the NYS Disaster Response Plan; and the NYS and FEMA US&R Response System, its organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 2. Have a comprehensive knowledge of the regional response team functions and urban search and rescue operations, tactics, strategy and safety consideration.
- 3. Must be capable of developing and providing safety training programs for the team.
- 4. Possess strong skills in interpersonal relations.
- 5. Possess good interagency coordination skills and work well with various technical components and other organizations.
- 6. Ability to effectively communicate orally and in writing.
- 7. Knowledge of the practical application of available technology used to support U/TS&R missions and objectives.
- 8. Able to be flexible, to improvise, to share information, resolve conflicts and solve problems
- 9. Must be able to assess an incident scene and select the appropriate level of personal protective equipment for the hazards of the operation to be conducted.
- 10. Must posses the knowledge and skills necessary to evaluate respiratory hazards and select the appropriate respiratory protective equipment for the hazards and operations to be conducted.
- 11. Must have the knowledge and background to asses the safety of rigging and hoisting operations and heavy equipment operation.
- 12. Must have basic building construction knowledge.
- 13. Must be capable of implementing basic fall protection practices.
- 14. Must be familiar with and be able to implement basic lockout/tagout procedures.
- 15. Must understand and be able to implement basic safe electrical work practices.
- 16. Must understand the basic shoring practices in stabilizing structures.
- 17. Must understand the basics of excavation and sheeting shoring and basic requirements in excavation operations.
- 18. Must be able to asses and implement basic protections from bloodborne pathogens.
- 19. Must understand the concepts involved in rehab sector operations.
- 20. Must be able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

## RESCUE TEAM MANAGER

The Rescue Team Manager is responsible for managing and supervising the search and rescue function of the regional response team during incident operations. The Rescue Team Manager reports directly to the regional response team leader.

## **Description of Duties**

- The Rescue Team Manager is responsible for the development and implementation of the incident search and rescue plans.
- The Rescue Team Manager addresses the coordination and supervision of all search and rescue activities.
- The Rescue Team Manager directly supervises the Rescue Squad Officers, Canine Search Specialists or Technical Search Specialists and also ensures adherence to all safety procedures.
- The Rescue Team Manager is responsible for the determination of search and rescue organizational and logistical needs.
- The Rescue Team Manager receives briefing and situation reports and ensures that all search and rescue personnel are kept informed of status changes.
- The Rescue Team Manager provides situation reports, maintains records and reports and prepares performance evaluations.
- The Rescue Team Manager performs 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 Rescue Team Managers in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising the search component in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

## RESCUE TEAM MANAGER General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have completed the NYS Hazardous Materials First Responder: Operations Course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. 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.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# **RESCUE TEAM MANAGER Specific Requirements and Criteria**

- 1. Ability to manage Rescue Operations, specialized equipment and support resources during team operations.
- 2. Capable of coordinating and directing multiple Rescue Squad Operations.
- 3. Have a comprehensive knowledge of U/TS&R operations, tactics and strategy.
- 4. Possess knowledge of the practical application of available technology used to support U/TS&R missions and objectives.
- 5. Knowledgeable about search operations including search dogs, area sectoring, search patterns, victim location, marking techniques, search team organization and operating procedures.
- 6. Familiar with principles of building construction, how buildings may react in a collapsed situation and possible human scent movement through these structures.
- 7. Knowledgeable about basic canine first aid, CPR or equivalent and be able to provide treatment for dogs in the field.
- 8. Familiar with basic rope rescue techniques or equivalent.
- 9. Understanding of technical/electronic search device capabilities, limitations and procedures.
- 10. Aware of the hazards associated with the various disaster search environments.
- 11. Familiar with the structural features and conditions that contribute to a high probability of victim survival in a collapsed structure.
- 12. Understand the broad range of other disaster response organizations.
- 13. Possess good interagency coordination skills, work well with technical experts, local officials and other organizations.
- 14. Knowledgeable about the development and use of integrated action planning concepts and processes.
- 15. Ability to effectively communicate orally and in writing.
- 16. Able to be flexible, to improvise, to share information, resolve conflicts and solve problems.
- 17. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

## **RESCUE SQUAD OFFICER**

The Rescue Squad Officer is responsible for managing and supervising one of the rescue squads of the regional response team during incident operations. The Rescue Squad Officer reports directly to the Rescue Team Manager.

## **Description of Duties**

- The Rescue Squad Officer directly supervises a squad of five Rescue Specialists and ensures adherence to all safety procedures.
- The Rescue Squad Officer is responsible for assisting in the development and implementation of the incident rescue action plan.
- The Rescue Squad Officer addresses the coordination and supervision of all rescue squad activities at a specific rescue site.
- The Rescue Squad Officer is responsible for the determination of rescue organizational and logistics needs of the squad or working site.
- The Rescue Squad Officer receives briefing and situation reports and ensures that all rescue squad personnel are kept informed of status changes.
- The Rescue Squad Officer provides situation reports, maintains records and reports and prepares performance evaluations.
- The Rescue Squad Officer performs 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 Rescue Squad Officers in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising the rescue squad personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# **RESCUE SQUAD OFFICER General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 4. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 5. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 6. Must be capable of improvising and functioning for long hours under adverse conditions.
- 7. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 8. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 9. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 10. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# **RESCUE SQUAD OFFICER** Specific Requirements and Criteria

- 1. Must fulfill all the requirements and be competent in the application of practical skills identified for the Rescue Specialist position.
- 2. Capable of supervising and directing rescue specialists in specific rescue operations.
- 3. Comprehensive knowledge of urban search and rescue operations and tactics.
- 4. Possess strong interpersonal communication skills.
- 5. Ability to manage rescue squad personnel, specialized equipment and local support resources.
- 6. Ability to effectively communicate orally and in writing.
- 7. Knowledge of available technology used to support U/TS&R missions and objectives.
- 8. Current in a state-sanctioned Certified First Responder certification or equivalent.
- 9. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

## **RESCUE SPECIALIST**

The Rescue Specialist is responsible for performing the rescue function of the regional response team during incident operations. The Rescue Specialist reports directly to the Rescue Squad Officer.

## **Description of Duties**

The Rescue Specialist is responsible for implementing technical skills and operating equipment necessary for completing the rescue portion of the action plan.

- The Rescue Specialist performs rescue operations under the direct supervision of a Rescue Squad Officer and provides periodic progress reports as needed.
- The Rescue Specialist is responsible for the application of proper rescue tactics and techniques including rope rescue operations, confined space rescue, shoring and stabilization, breaching, victim packaging and extrication.
- The Rescue Specialist is responsible for the safe and effective operation and maintenance of rescue tools and equipment.
- The Rescue Specialist is accountable for all issued equipment.
- The Rescue Specialist performs 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 Rescue Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing the rescue tactics and techniques required in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

## RESCUE SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 4. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 5. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 6. Must be capable of improvising and functioning for long hours under adverse conditions.
- 7. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 8. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 9. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 10. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# RESCUE SPECIALIST Specific Requirements and Criteria

- 1. Must have a minimum of three years of regular field experience in rescue operations.
- 2. Current in a state-sanctioned Certified First Responder certification or equivalent.
- 3. Knowledge of safety considerations during U/TS&R operations, including the possibility and consequences of earthquake aftershocks and factors contributing to soil and structural instability.
- 4. Proficient in basic fire extinguisher techniques per NYS Firefighting Essentials requirements.
- 5. Proficient in rope rescue techniques including:
  - Familiar with rope use and maintenance per NFPA #1983.
  - Understanding of rope rescue terminology.
  - Proficient in set-up and use of rappelling system(s).
  - Proficient in set-up and use of belay and lowering system(s).
  - Proficient in set-up and use of mechanical advantage raising and tensioning system(s).
  - Proficient in set-up and use of ascending system(s).
  - Proficient in self rescue technique(s).
  - Proficient in patient packaging, litter rigging and removal.
  - Proficient in set-up and use of traversing system(s).
- 6. Proficient in confined space rescue techniques per Federal OSHA 29 CFR 1910.146 Permit Required Confined Spaces for General Industry including:
  - Understanding of the definition of a confined space.
  - Understanding of confined space rescue terminology.
  - Working knowledge of confined space hazards.
  - Proficient in hazard control techniques.
  - Proficient in the use of breathing apparatus systems (SCBA, supplied air systems, etc.).
  - Proficient in the application of entry/egress rope systems and special patient removal techniques and devices.
  - Working knowledge of support operations.
- 7. Proficient in shoring and stabilization techniques including:
  - Understanding of shoring and stabilization terminology.
  - Proficient in the set-up and use of shoring equipment including: wood, air bags (high and low pressure), mechanical (screw jacks, hydraulic, pneumatic shores), Ellis clamps.
  - Working knowledge of weight estimation "rules of thumb" for construction materials.
  - Working knowledge of utilizing on-scene materials.
- 8. Use of specialized extrication equipment (per manufacturers specifications), including:
  - Understanding of specialized extrication terminology.
  - Proficient in the set-up and use of: hydraulic tools (spreaders, cutters, rams, etc.), electric equipment (generators, lighting equipment, etc.), cutting tools (rotary, chain, ring, and reciprocating saws, etc.), pneumatic tools (air chisels and hammers, etc.), gas operated tools, burning equipment (oxyacetylene, exothermic, etc.), hand tools, winching equipment.
  - Working knowledge of safety and maintenance procedures for specialized extrication equipment.

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- 9. Basic understanding of heavy equipment and rigging operations and capabilities:
  - Understanding of standard terminology.
  - Basic understanding of the capabilities and limitations of various cranes.
  - Knowledge of hazards and safety precautions during crane operations.
  - Basic knowledge of rigging techniques and equipment (chains, blocks, harnesses, cable, etc.).
  - Basic knowledge and application of related construction equipment in support of U/TS&R operations (loaders, conveyors, dump trucks and back-hoes).
- 10. Basic understanding in search unit strategy, tactics, techniques and equipment including:
  - Understanding of search terminology.
  - Basic understanding of the use, capabilities and limitations of a dog/handler team.
  - Basic understanding of canine search procedures.
  - Basic understanding of the use, capabilities and limitations of technical/electronic search devices (acoustic, sonic, seismic, fibre optic/video, etc.).
- 11. Proficient in rescue strategy, tactics and operations at collapse sites including:
  - Understanding of collapse rescue terminology.
  - Working knowledge in the use and application of collapse site search and hazard markings.
  - Understanding of general U/TS&R mission operational procedures.
  - Understanding of size-up and reconnaissance considerations of an affected area.
  - Working knowledge of specific size-up and reconnaissance considerations of an assigned work site.
  - Ability to recognize and mitigate hazards at collapse sites.
  - Ability to utilize or integrate with local resources, and other U/TS&R response teams and rescue components.
  - Understanding of the construction features and conditions that contribute to a high probability of victim survival in collapsed structures (stairwells, elevator shafts, hallways, basements, parking garages, voids, etc.).
  - Ability to properly utilize equipment and tools and to apply techniques to achieve victim extrication and removal.
- 12. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

## **TECHNICAL SEARCH SPECIALIST**

The Technical Search Specialist is responsible for performing the search function of the incident operation. The Technical Search Specialist reports directly to the Rescue Team Manage.

## **Description of Duties**

- The Technical Search Specialist is responsible for searching collapsed structures, water, debris piles, land and mud slides, or fire areas as assigned, using appropriate electronic search equipment and techniques.
- The Technical Search Specialist is responsible for documenting locations of alerts and if possible, estimating the status of victims.
- The Technical Search Specialist is responsible for cooperating with and assisting other search and rescue resources.
- The Technical Search Specialist is accountable for all issued equipment.
- The Technical Search Specialist performs 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 Technical Search Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select competent personnel fully capable of providing state-of-the-art search techniques and tactics required in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# TECHNICAL SEARCH SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# TECHNICAL SEARCH SPECIALIST Specific Requirements and Criteria

- 1. Understanding of basic electronic principles and theories. Capable of performing basic electronic trouble shooting techniques in the field.
- 2. Practical ability in the operation of selected technical electronic search equipment in the disaster environment. Thorough familiarization with system manufacturers' operation manuals and technical publications as provided.
- 3. Practical knowledge of search strategy and tactics, including:
  - "Probability of Detection" analysis.
  - Victim behavior patterns in various situations.
  - Search pattern selection criteria including terrain, structures, wind, weather and air circulation characteristics.
  - Search team organization and operational procedures.
  - Knowledge of the capabilities and limitations of technical search equipment.
  - Understanding of general rescue tactics and strategy.
- 4. Practical knowledge of the technical aspects of search theory, including:
  - Map and compass techniques.
  - Ability to accurately sketch a search area.
  - Ability to apply and interpret search area marking techniques for perimeters, alert areas, hazards, etc.
  - Understand search area sectoring.
  - Recognize and identify victim location clues.
  - Practical knowledge of night search techniques, increased hazard awareness and applicable air circulation characteristics.
- 5. Practical knowledge of the theory and techniques of searching collapsed structures, including:
  - Recognizing and identifying hazards associated with structural collapse and its environment.
  - Structural features and conditions that contribute to a high probability of victim survival in a collapsed structure.
  - Understand the need for flexibility and coordination during multiple search operations.
  - Understanding of air circulation characteristics in various environments.
  - Understanding of canine search operations including team size, check/recheck procedures and observer responsibilities.
- 6. Practical ability to apply search tactics, strategy and procedures at collapse sites, including:
  - Understanding of U/TS&R mission operational procedures.
  - Understanding of the size-up and reconnaissance considerations of an affected area.
  - Understanding of specific size-up and reconnaissance considerations of an assigned work site.
  - Understanding of U/TS&R equipment and tools utilization.
  - Able to integrate with local resources and other teams.
- 7. Able to conduct search activities in adverse environments and aware of the hazards associated with various disasters and search environments.
- 8. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

# **CANINE SEARCH SPECIALIST**

The Canine Search Specialist is responsible for performing the search function of the regional response team incident operation. The Canine Search Specialist reports directly to the Rescue Team Manager.

## **Description of Duties**

- The Canine Search Specialist (together with a search dog) is responsible for searching collapsed structures, water, debris piles, land and mud slides, or fire areas as assigned, using appropriate search techniques and dog handler skills.
- The Canine Search Specialist is responsible for documenting locations of alerts and estimating the status of victims.
- The Canine Search Specialist is responsible for cooperating with and assisting other search and rescue resources.
- The Canine Search Specialist is accountable for all issued equipment.
- The Canine Search Specialist performs 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 Canine Search Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select handlers fully capable of providing the search techniques and tactics required in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# **CANINE SEARCH SPECIALIST General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

# CANINE SEARCH SPECIALIST Specific Requirements and Criteria

- 1. Must currently be an operational search dog handler recognized by the NYS Office of Fire Prevention and Control.
- 2. Practical knowledge of general search strategy and tactics, including:
  - One year search and rescue experience, with a minimum of five actual search missions.
  - "Probability of Detection" analysis.
  - Victim behavior patterns in various situations.
  - Search pattern selection criteria including terrain, structures, wind, weather and air circulation characteristics.
  - Search team organization and operational procedures.
  - Understanding of canine search operation including team size, check/recheck procedures and observer responsibilities.
  - Understanding of the general capabilities and limitations of technical/electronic search equipment.
  - Understanding of general rescue tactics and strategy.
- 3. Practical knowledge of the technical aspects of search theory, including:
  - Map and compass techniques.
  - Ability to accurately sketch a search area.
  - Ability to apply and interpret search area marking techniques for perimeters, alert areas, hazards, etc.
  - Understand search area sectoring.
  - Recognize and identify victim location clues.
  - Practical knowledge of night search techniques, increased hazard awareness and applicable air circulation characteristics.
- 4. Practical knowledge of the theory and techniques of searching collapsed structures, including:
  - Recognizing and identifying hazards associated with structural collapse and its environment.
  - Structural features and conditions that contribute to a high probability of victim survival in a collapsed structure.
  - Understanding the need for flexibility and coordination during multiple search operations.
  - Understanding of air circulation characteristics in various environments.
- 5. Practical ability to apply search tactics, strategy and procedures at collapse sites, including:
  - Understanding of U/TS&R mission operational procedures.
  - Understanding of the size-up and reconnaissance considerations of an affected area.
  - Understanding of specific size-up and reconnaissance considerations of an assigned work site.
  - Understanding of U/TS&R equipment and tools utilization.
  - Able to integrate with local resources and other teams.

## New York State Office of Fire Prevention and Control

- 6. Able to conduct search activities in adverse environments including:
  - Awareness of the hazards associated with various disasters and search environments.
  - Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.
  - Able to interpret different canine alerts and areas of interest.
  - Able to perform as a secondary observer.
  - Understand the parameters of the work time limitations for canines and determine rotation periods.
- 7. Must be competent in canine search handling skills, to include:
  - Must have a close rapport and effective working relationship with the canine.
  - Must be able to accurately interpret the canine's different alerts and indications of areas of interest.
  - Must be able to work canine off lead.
  - Able to direct canine into voids, tunnels or restricted spaces.
  - Must have a good understanding of the capabilities and limitation of the canine.
- 8. Knowledgeable with and able to provide first aid for canines.
- 9. Must be familiar with Basic Rope Techniques/NYS Office of Fire Prevention and Control Rescue Operations or equivalent.

## MEDICAL TEAM MANAGER

The Medical Team Manager is responsible for managing and supervising the medical function of the Regional Response Team during incident operations. The Medical Team Manager reports directly to the Regional Response Team Leader.

### **Description of Duties**

- The Medical Team Manager is responsible for the development and implementation of the medical action plan.
- The Medical Team Manager directly supervises the Medical Specialists and ensures adherence to all safety procedures.
- The Medical Team Manager directly addresses the coordination of all medical activities.
- The Medical Team Manager is responsible to the determination of medical organizational and logistics needs.
- The Medical Team Manager receives briefing and situation reports and ensures that all medical personnel are kept informed of status changes.
- The Medical Team Manager provides situation reports, maintains records and reports and prepares performance evaluations.
- The Medical Team Manager directs medical care delivery to Regional Response Team personnel, search dogs and victims.
- The Medical Team Manager ensure continuous medical performance, evaluation and coordination with all available outside medical entities.
- The Medical Team Manager performs 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 Medical Team Managers in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising the medical component in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

# MEDICAL TEAM MANAGER General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must have successfully completed the First Responder Awareness Program for Hazardous Materials NFPA 472.
- 4. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 5. Must be available on short notice to mobilize within 1 hour of request and be available for a response assignment of up to 10 days.
- 6. Must be capable of improvising and functioning for long hours under adverse conditions.
- 7. Must have a working knowledge of NYS U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 8. Must understand the needs of and provide support to their counterparts within the Regional Response Team for specific operations, techniques and application of tools and equipment.
- 9. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 10. Must maintain current inoculations for Diphtheria/Tetnus (or Tetnus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957), and Polio.

## MEDICAL TEAM MANAGER Specific Requirements and Criteria

- 1. A licensed physician who preferably is emergency medicine residency-trained and/or Board-certified and actively practicing clinical emergency medicine and having significant experience with pre-hospital medical care; (or,)
- 2. A licensed physician with current ACLS, ATLS, and PALS certification (or equivalent) whose day-to-day medical activities include regular and substantial emergency medicine and pre-hospital medical care.
- 3. Individuals must have a knowledge and understanding of medical conditions common to US&R incidents such a lacerations, fractures, shock, crush injury and crush syndrome, burns, penetrating/blunt trauma, head injuries, respiratory embarrassment, hyper/hypothermia and infections. They must also have experience treating common medical emergencies, eye injuries, minor orthopedic injuries, etc.
- 4. Have an understanding of the broad range of disaster response organizations and their roles. Examples include NDMS, local public health and safety organizations, DOD, Coast Guard, American Red Cross, etc.
- 5. Have a working knowledge of general rescue operations at structural collapse sites, landslides, hurricanes and other such disasters.
- 6. Aware of the hazards associated with the various disaster environments.
- 7. Familiar with the structural features and conditions that contribute to a high probability of victim survival in a collapsed structure.
- 8. Possess good interagency coordination skills, work well with technical experts, local officials and other organizations.
- 9. Knowledgeable about the development and use of integrated action planning and concepts and processes.
- 10. Ability to effectively communicate orally and in writing.
- 11. Able to be flexible, to improvise, to share information, resolve conflicts and solve problems.
- 12. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces, and in below-grade compromised conditions.

## MEDICAL SPECIALIST

The Medical Specialist is responsible for performing the medical functions of the regional response team during incident operations. The Medical Specialist reports directly to the Technical Team Manager.

## **Description of Duties**

- The Medical Specialist is responsible for the general health considerations of and delivery of initial medical care to all regional response team personnel, victims and search dogs, while under the supervision of the Technical Team Manager, during team operations.
- The Medical Specialist is responsible for the implementation of the medical action plans specified by the Technical Team Manager.
- The Medical Specialist is accountable for all issued equipment.
- The Medical Specialist performs 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 Medical Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing medical care required by the regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

## MEDICAL SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified as a Paramedic or Cardiac Care Technician or equivalent and meet the requirements in the Specific requirements and Criteria section.
- 4. Must be certified to the NYS Hazardous Materials First Responder: Operations Level.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

## MEDICAL SPECIALIST Specific Requirements and Criteria

- 1. Paramedic or Cardiac Care Technician certified within an accredited organization or municipality and meeting the National Registry of EMT-Paramedic Standards or state certification requirements. Should be proficient in and ideally, certified in BTLS, ACLS and PALS regimens (or equivalent). Must be actively practicing pre-hospital care on a regular basis. This is specifically intended to exclude individuals with certifications but no regular clinical experience, to ensure acceptable mechanical skill levels during mission operations. OR
- 2. Nurse registered nurse with locally approved pre-hospital care certification and actively practicing advanced pre-hospital life support. Should be proficient in and ideally, certified in BTLS, ACLS and PALS regimens (or equivalent). These individuals must possess the immobilization, extrication, vascular access and airway management skills of a National Registry EMT-Paramedic. They must also be maintaining their clinical skill levels through regular real-life experience.
- 3. Individuals must have a knowledge and understanding of medical conditions common to U/TS&R incidents such as lacerations, fractures, shock, crush injury and crush syndrome, burns, penetrating/blunt trauma, head injuries, respiratory embarrassment, hyper/ hypothermia and infections. They must also have experience treating common medical emergencies, eye injuries, minor orthopedic injuries, etc.
- 4. Have an understanding of the broad range of disaster response organizations and their roles. Examples include NDMS, local public health and safety organizations, DOD, Coast Guard, American Red Cross, etc.
- 5. Have an understanding of general rescue operations at structural collapse sites, landslides, hurricanes and other such disasters.
- 6. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

#### **TECHNICAL TEAM MANAGER**

The Technical Team Manager is responsible for managing and supervising the technical functions of the regional response team during incident operations. The Technical Team Manager reports directly to the Regional Response Team Leader.

#### **Description of Duties**

- The Technical Team Manager is responsible for the development and implementation of the technical components of the incident action plan.
- The Technical Team Manager directly supervises the following positions: Structures Specialist, Hazardous Materials Specialist, Heavy Equipment and Rigging Specialist, Medical Specialist, Technical Information Specialist, Communications Specialist and Logistics Specialist. The Technical Team Manager also ensures adherence to all safety procedures.
- The Technical Team Manager addresses the coordination and supervision of all technical activities.
- The Technical Team Manager is responsible for determining the technical organizational and logistics needs.
- The Technical Team Manager receives briefings and situation reports and ensures that all technical personnel are kept informed of status changes.
- The Technical Team Manager provides situation reports, maintains records and reports and prepares performance evaluations.
- The Technical Team Manager performs 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 Technical Team Managers in the NYS U/TS&R Response System. The intent of these requirements is to select functional managers capable of effectively managing and supervising the technical component in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### TECHNICAL TEAM MANAGER General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

### TECHNICAL TEAM MANAGER Specific Requirements and Criteria

- 1. General knowledge of hazardous materials response functions and defensive techniques, heavy equipment and rigging techniques, medical considerations specific to technical rescue operations, information collection and recording, building construction, communications systems and equipment management procedures.
- 2. General knowledge of U/TS&R structural collapse operations.
- 3. Ability to manage technical personnel, specialized equipment and local support resources during disaster situations.
- 4. Knowledge of the application of available technology to support U/TS&R operations.
- 5. General knowledge of basic building materials, including:
  - Basic understanding of design and construction techniques of wood, masonry, concrete and steel.
  - Basic understanding of the construction techniques utilizing archaic materials, primarily unreinforced masonry and concrete.
- 6. General understanding of the behavior of structures under adverse loading conditions.
- 7. General knowledge of shoring and bracing techniques.
- 8. Aware of the hazards associated with the various disaster environments.
- 9. Familiar with the structural features and conditions that contribute to a high probability of victim survival in a collapsed structure.
- 10. Understand the broad range of other disaster response organizations.
- 11. Possess good interagency coordination skills, work well with technical experts, local officials and other organizations.
- 12. Knowledgeable about the development and use of integrated action planning concepts and processes.
- 13. Ability to effectively communicate orally and in writing.
- 14. Able to be flexible, to improvise, resolve conflicts and solve problems.
- 15. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

#### **STRUCTURES SPECIALIST**

The Structures Specialist is responsible for performing the various structural assessments for the regional response team during incident operations. The Structures Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Structures Specialist is responsible for evaluating the immediate structural condition of the area to be entered at the rescue site during regional response team operations.
- The Structures Specialist is responsible for determining the appropriate type and amount of structural hazard mitigation in order to minimize risks on site to regional response team personnel.
- The Structures Specialist is responsible for cooperating with and assisting other search and rescue resources.
- The Structures Specialist is accountable for all issued equipment.
- The Structures Specialist performs 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 Structures Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### STRUCTURES SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

### STRUCTURES SPECIALIST Specific Requirements and Criteria

- 1. Currently certified as a professional engineer.
- 2. A minimum of five years experience in structure design and analysis to include evaluation of existing structures, field investigation or construction observation experience.
- 3. Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 4. Comprehensive knowledge of building materials, to include:
  - Knowledge of the design and construction techniques for wood, masonry, concrete and steel.
  - Knowledge of the design and construction techniques utilizing archaic materials such as unreinforced masonry and concrete.
- 5. Ability to identify vertical load- and lateral force-resisting framing systems and be able to identify the critical elements within those systems.
- 6. Knowledge of the behavior of structures under adverse loading conditions.
- 7. Ability to identify features that allow for the determination of the condition of structures subjected to adverse loading from:
  - Earthquakes ability to evaluate the remaining lateral force system capacity in the event of aftershocks.
  - Hurricanes and tornadoes ability to evaluate the lateral force system and areas of local stress
  - Flood or dam collapse.
  - Fire or explosion.
  - Landslide or avalanche.
  - Transportation accidents.
  - Snow storms.
- 8. Ability to identify failure indications of building materials, including:
  - Knowledge of how basic building materials and framing systems perform.
  - Knowledge of how building materials typically fail under various loading conditions.
  - Knowledge of typical falling and collapse hazards from previous failures.
- 9. Knowledge of the appropriate types of structural hazard reduction methods for various types of collapsed structures, including:
  - Shoring and bracing and availability of appropriate materials.
  - Removal of collapsed structural components and hazards or debris removal.
  - Methods for creating safe havens.
  - Identification of unsafe areas that must be restricted.
- 10. Ability to identify building features that could provide entry or access to victims such as ducts, shafts, etc.
- 11. Knowledge of victim access methods, including:
  - How and where to penetrate various building types to minimize risks.
  - Effects of lifting large structural components and the ability to calculate weights for rigging and lifting operations.
  - Knowledge of safety rescue practices and procedures.
- 12. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### **ASSISTANT STRUCTURES SPECIALIST**

The Assistant Structures Specialist is responsible for performing the various structural assessments for the regional response team during incident operations. The Assistant Structures Specialist reports directly to the Structures Specialist.

#### **Description of Duties**

- The Assistant Structures Specialist, under the supervision of the Structures Specialist, is responsible for evaluating the immediate structural condition of the area to be entered at the rescue site during regional response team operations.
- The Assistant Structures Specialist, under the supervision of the Structures Specialist, is responsible for determining the appropriate type and amount of structural hazard mitigation in order to minimize risks on site to regional response team personnel.
- The Assistant Structures Specialist, under the supervision of the Structures Specialist, is responsible for cooperating with and assisting other search and rescue resources.
- The Assistant Structures Specialist, under the supervision of the Structures Specialist, is accountable for all issued equipment.
- The Assistant Structures Specialist performs 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 Structures Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

## ASSISTANT STRUCTURES SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

### ASSISTANT STRUCTURES SPECIALIST Specific Requirements and Criteria

- 1. Currently certified as a Licensed Surveyor, Engineer in Training or Survey Technician.
- 2. A minimum of five years experience in field investigation or construction observation experience or as a Licensed Surveyor with Computer Aided Design (CAD) experience.
- 3. Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 4. Comprehensive knowledge of the operation of structural monitoring equipment such as theodolites and transits.
- 5. Comprehensive basic knowledge of building materials, to include:
  - Knowledge of the design and construction techniques for wood, masonry, concrete and steel.
  - Knowledge of the design and construction techniques utilizing archaic materials such as unreinforced masonry and concrete.
- 6. Ability to identify vertical load- and lateral force-resisting framing systems and be able to identify the critical elements within those systems.
- 7. Basic knowledge of the behavior of structures under adverse loading conditions.
- 8. Basic ability to identify features that allow for the determination of the condition of structures subjected to adverse loading from:
  - Earthquakes ability to evaluate the remaining lateral force system capacity in the event of aftershocks.
  - Hurricanes and tornadoes ability to evaluate the lateral force system and areas of local stress.
  - Flood or dam collapse.
  - Fire or explosion.
  - Landslide or avalanche.
  - Transportation accidents.
  - Snow storms.
- 9. Ability to identify failure indications of building materials, including:
  - Knowledge of how basic building materials and framing systems perform.
  - Knowledge of how building materials typically fail under various loading conditions.
  - Knowledge of typical falling and collapse hazards from previous failures.
- 10. Knowledge of the appropriate types of structural hazard reduction methods for various types of collapsed structures, including:
  - Shoring and bracing and availability of appropriate materials.
  - Removal of collapsed structural components and hazards or debris removal.
  - Methods for creating safe havens.
  - Identification of unsafe areas that must be restricted.
- 11. Ability to identify building features that could provide entry or access to victims such as ducts, shafts, etc.
- 12. Knowledge of victim access methods, including:
  - How and where to penetrate various building types to minimize risks.
  - Effects of lifting large structural components and the ability to calculate weights for rigging and lifting operations.
  - Knowledge of safety rescue practices and procedures.
- 13. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### HEAVY EQUIPMENT AND RIGGING SPECIALIST

The Heavy Equipment and Rigging Specialist is responsible for performing the various assessments and construction related liaison for the regional response team during incident operations. The Heavy Equipment and Rigging Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Heavy Equipment and Rigging Specialist is responsible for assessing the need for and capabilities of various construction related equipment to assist regional response team personnel in U/TS&R activities.
- The Heavy Equipment and Rigging Specialist is responsible for identifying various rigging techniques to assist in the rescue of victims or stabilization of collapsed buildings.
- The Heavy Equipment and Rigging Specialist is responsible for interacting with and coordinating efforts between regional response team personnel and heavy equipment and crane operators.
- The Heavy Equipment and Rigging Specialist is accountable for all issued equipment.
- The Heavy Equipment and Rigging Specialist performs 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 Heavy Equipment and Rigging Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

## HEAVY EQUIPMENT AND RIGGING SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

#### HEAVY EQUIPMENT AND RIGGING SPECIALIST Specific Requirements and Criteria

- 1. Three years experience in a trade-related field such as heavy equipment operator, crane operator or assistant or other applicable field.
- 2. A knowledge of the operational characteristics and capabilities of heavy construction equipment to include, but not be limited to: cranes, back-hoes, front-end loaders, dump trucks, etc.
- 3. Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 4. Knowledge of construction techniques and a basic understanding of the methods and procedures used in the demolition (destruction) of structures.
- 5. Knowledge of heavy rigging operations to include:
  - Knowledge of the use and application of rigging tools to include, but not limited to: wire rope and wire rope slings, chain and fabric slings, woven wire slings, load binders, snatch blocks and block and tackle, swivels, hooks and shackles.
  - Knowledge of lift capacity assessment, to include: assessment of rigging attachments at a rescue site, determination of the lift capacities of various types of rigging equipment through the interpretation of specification charts, determination of the rated capacities of various slings and bridles from specification charts.
  - Knowledge of lift engineering applications to include: various hitch systems, calculation of load application on sling systems, raising systems.
  - Knowledge of equipment maintenance and inspection procedures.
  - Knowledge in the use of anchoring systems, to include: the use and application of fastening and anchoring devices, the knowledge of placement and loading principles, the understanding of anchor failure principles.
- 6. Knowledge of the methods of construction using any of the common building materials.
- 7. Understanding of the construction techniques of archaic materials such as unreinforced masonry and concrete.
- 8. Knowledge of the capabilities of light construction equipment including, but not limited to rotary impact drills, concrete saws and core drills.
- 9. Knowledge and training in shoring methods and materials, to include:
  - Knowledge of the abilities of various shoring materials such as air bags, jack shores, pneumatic shores and timber.
  - Ability to improvise and provide shoring with available materials.
- 10. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### HAZARDOUS MATERIALS SPECIALIST

The Hazardous Materials Specialist is responsible for performing the various hazardous materials assessments for the regional response team during incident operations. The Hazardous Materials Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Hazardous Materials Specialist is responsible for providing ongoing monitoring of local environmental conditions during regional response team operations.
- The Hazardous Materials Specialist is responsible for providing an initial and ongoing survey for and identification of the presence of hazardous materials at search and rescue sites.
- The Hazardous Materials Specialist is responsible for implementing defensive mitigation practices when indicated.
- The Hazardous Materials Specialist is responsible for providing emergency decontamination procedures as a supervisor of the Decontamination Specialist for any regional response team member or victim.
- The Hazardous Materials Specialist is responsible for providing assistance to medical personnel for information regarding chemical exposure and injuries.
- The Hazardous Materials Specialist is responsible for documenting all related information.
- The Hazardous Materials Specialist is accountable for all issued equipment.
- The Hazardous Materials Specialist performs 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 NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### HAZARDOUS MATERIALS SPECIALIST General Requirements and Criteria

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 4. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 5. Must be capable of improvising and functioning for long hours under adverse conditions.
- 6. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 7. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 8. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 9. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

#### HAZARDOUS MATERIALS SPECIALIST Specific Requirements and Criteria

- 1. Currently certified as a NYS Hazardous Materials Technician, with three years of regular experience in hazardous materials response.
- 2. A knowledge of data collection techniques and documentation procedures in accordance with Office of Fire Prevention and Control procedures.
- 3. Current in a state-sanctioned Certified First Responder certification or equivalent.
- Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 5. Ability to recognize and identify risks and hazards during aerial reconnaissance and document accordingly.
- 6. Ability to recognize and identify basic risks and hazards at the rescue site and document accordingly.
- 7. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade, compromised conditions.

#### **DECONTAMINATION SPECIALIST**

The Decontamination Specialist is responsible for performing the various hazardous materials assessments for the regional response team during incident operations. The Decontamination Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Decontamination Specialist is responsible for providing emergency decontamination procedures for any regional response team member or victim.
- The Decontamination Specialist will assist the Hazardous Materials Specialist when required.
- The Decontamination Specialist is responsible for documenting all pertinent information.
- The Decontamination Specialist is accountable for all issued equipment.
- The Decontamination Specialist performs 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 Decontamination Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### **DECONTAMINATION SPECIALIST General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 4. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 5. Must be capable of improvising and functioning for long hours under adverse conditions.
- Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 7. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 8. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 9. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

## DECONTAMINATION SPECIALIST Specific Requirements and Criteria

- 1. Currently certified as a NYS Hazardous Materials Technician, with three years of regular experience in hazardous materials response.
- 2. A knowledge of data collection techniques and documentation procedures in accordance with Office of Fire Prevention and Control procedures.
- 3. Current in a state-sanctioned Certified First Responder certification or equivalent.
- 4. Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 5. Ability to recognize and identify basic risks and hazards at the rescue site and document accordingly.

#### LOGISTICS SPECIALIST

The Logistics Specialist is responsible for managing the equipment cache for the regional response team during incident operations. The Logistics Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Logistics Specialist is responsible for maintaining the equipment cache in an appropriate state of readiness for immediate response.
- The Logistics Specialist is responsible for the packaging, transport, distribution and maintenance of the regional response team equipment cache during mission assignments.
- The Logistics Specialist is responsible for coordination with transport officials where appropriate for all cache logistics.
- The Logistics Specialist responsible for the procurement of non-cacheable items, either during the response phase or on-site, as appropriate.
- The Logistics Specialist is responsible for the security and accountability of all components of the regional response team equipment cache.
- The Logistics Specialist is responsible for maintaining appropriate records and reports.
- The Logistics Specialist performs 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 Logistics Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### LOGISTICS SPECIALIST **General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation - Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

## LOGISTICS SPECIALIST Specific Requirements and Criteria

- 1. Must have a practical knowledge of the terminology and capabilities of al items in the equipment cache.
- 2. Must have a comprehensive knowledge of the equipment inventory and tracking procedures as defined in the NYS U/TS&R Property Accountability System.
- 3. Must have mechanical aptitude and the ability to maintain and perform minor equipment repairs in the field.
- 4. Must be familiar with the weights and volumes of the cache components, cargo transportation requirements and regulations, equipment fuel requirements and the environmental limitations of sensitive equipment and supplies.
- 5. Have good oral and written communication skills.
- 6. Ability to keep good records and documentation.
- 7. Ability to effectively organize and plan during crisis situations.
- 8. Ability to anticipate and improvise so as to fulfill unexpected users' needs.
- 9. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### **TECHNICAL INFORMATION SPECIALIST**

The Technical Information Specialist is responsible for document, tracking and retrieving all pertinent information for the regional response team during incident operations. The Technical Information Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

The Technical Information Specialist is responsible for fully documenting the activities of the U/TS&R regional response team during an assigned mission for on-site and post-incident analysis, historic documentation and post-event critiques, lessons learned and training.

- The Technical Information Specialist is responsible for tracking all pertinent regional response team personnel information, work schedules and equipment inventory status.
- The Technical Information Specialist is responsible for compiling and producing team meeting agendas, work schedules, tactical assignments, etc., from information provided by regional response team management personnel, and reproducing same for distribution.
- The Technical Information Specialist is accountable for all issued equipment.
- The Technical Information Specialist performs 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 Technical Information Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### TECHNICAL INFORMATION SPECIALIST **General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation - Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

### **TECHNICAL INFORMATION SPECIALIST Specific Requirements and Criteria**

- 1. Ability to use a portable lap-top computer and a working knowledge of word processing and other related software.
- 2. Knowledge of and a practical ability in technical writing, U/TS&R terminology, data collection, documentation procedures and information analysis of emergency/disaster operations.
- 3. Successful completion of NYS U/TS&R basic level training requirements or equivalent.
- 4. Knowledge of and practical ability in the operation and use of various visual media including, but not limited to, video recorders, audio recorders and still photography.
- 5. Ability to recognize and identify incident hazards and document accordingly.
- 6. Ability to track and retrieve pertinent information, reproduce and distribute as appropriate.
- 7. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### **COMMUNICATIONS SPECIALIST**

The Communications Specialist is responsible for managing the communications system for the regional response team during incident operations. The Communications Specialist reports directly to the Technical Team Manager.

#### **Description of Duties**

- The Communications Specialist is responsible for assessing overall needs and developing the incident communications program.
- The Communications Specialist is responsible for frequency management, installation, operation and maintenance of the regional response team communications system during incident operations.
- The Communications Specialist is responsible for coordinating communications with other appropriate agencies.
- The Communications Specialist is responsible for the accountability of all components of the regional response team communications system.
- The Communications Specialist is responsible for providing assistance to medical personnel for information regarding chemical exposure and injuries.
- The Communications Specialist is responsible for maintaining appropriate records and reports.
- The Communications Specialist performs 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 Communications Specialists in the NYS U/TS&R Response System. The intent of these requirements is to select personnel fully capable of providing competent assessments and advice to regional response team personnel in the urban disaster environment. The requirements and criteria for the position are identified in the following categories:

- General Requirements and Criteria
- Specific Requirements and Criteria

#### COMMUNICATIONS SPECIALIST **General Requirements and Criteria**

- 1. Must be at least 21 years of age.
- 2. Must be physically fit according to the standards of the sponsoring organization and must successfully complete the required physical agility evaluation. However, there cannot be any physical or mental handicaps, limitations or conditions which would preclude the ability of an individual to safely perform any required tasks.
- 3. Must be currently certified in at least American Red Cross First Aid & Personal Safety and Cardiopulmonary Resuscitation - Basic Life Support or equivalent.
- 4. Must have successfully completed the NYS Hazardous Materials First Responder: Operations course or equivalent.
- 5. Must be aware of the signs, symptoms and corrective measures of critical incident stress syndrome.
- 6. Must be available on short notice to mobilize within one hour of request and be available for a response assignment of up to two days.
- 7. Must be capable of improvising and functioning for long hours under adverse conditions.
- 8. Must have a working knowledge of NYS's U/TS&R Response System, organizational structure, operating procedures, safety practices, terminology and communications protocols.
- 9. Must understand the needs of and provide support to their counterparts within the regional response team for specific operations, techniques and application of tools and equipment.
- 10. Must understand and adhere to safe working practices and procedures as required in the urban disaster environment.
- 11. Must maintain current inoculations for Diphtheria/Tetanus (or Tetanus only if there is a contraindication to Diphtheria), Hepatitis B, Measles/Mumps/Rubella (if born after 1957) and Polio.

#### **COMMUNICATIONS SPECIALIST** Specific Requirements and Criteria

- 1. Must have practical knowledge of current telecommunications theory.
- 2. Must have a working knowledge of the parameters of regional response team communications equipment including: Installation, Operation, Power Requirements, Frequency Programming and Field Troubleshooting.
- 3. Successful completion of NIIMS 1-358 Communications Unit Leader Course (modified for US&R Operations).
- 4. Knowledge of incident communications planning and frequency management.
- 5. Knowledge of radio protocols and discipline.
- 6. Ability to work with and effectively communicate within the regional response team and with other entities regarding communications issues.
- 7. Ability to effectively organize and plan during crisis situations.
- 8. Have good oral and written communication skills.
- 9. Ability to anticipate and plan for users' needs.
- 10. Able to function safely at heights and on or around rubble. Have experience and training in personal safety in confined spaces and in below-grade compromised conditions.

#### MINIMUM TEAM TRAINING OBJECTIVES

#### **Basic Operational Level**

The Basic Operational Level represents the minimum capability to operate safely and effectively at a structural or trench collapse incident as well incidents involving rescue from confined spaces. Personnel as this level shall be competent at surface rescue and rescue involving minimal removal of debris and building contents to extricate easily accessible victims. Rescue operations would include removal of victims from under furniture, appliances, the surface of a debris pile or a surface void not requiring shoring or lifting operations. Training at the basic level should at a minimum include the following:

- 1. Size up of existing and potential conditions and the identification of the resources necessary to conduct safe and effective search operations.
- 2. The process for implementing the Incident Command System (ICS).
- 3. The procedures for the acquisition, coordination and utilization of resources.
- 4. The procedures for implementing site control and scene management.
- 5. The identification, utilization and proper care of personal protective equipment required for operations at structural collapse, trench collapse and confined space incidents.
- 6. The identification of construction types, characteristics and expected behavior of each type in a collapse incident.
- 7. The identification of the types of collapse patterns and potential victim locations.
- 8. The recognition of the potential for secondary collapse.
- 9. Recognition of the general hazards associated with a structural collapse and the actions necessary for the safe mitigation of those hazards.
- 10. The procedures for implementation of a structural identification marking system, a structural hazard marking system and a search marking system.
- 11. Procedures for conducting searches at structural collapse incidents using appropriate methods for the type of collapse.
- 12. The procedures for the extrication of victims from structural collapse incidents.
- 13. Recognition of the general hazards associated with a trench collapse and the actions necessary for the safe mitigation of those hazards.
- 14. Recognition of the general hazards associated with a confined space and the actions necessary for the safe mitigation of those hazards.
- 15. Procedures for providing initial medical care to victims.
- 16. Procedures and techniques used in low angle basic rope rescue including rescue knots, hardware and software use and care, basic lowering systems and basic mechanical advantage raising systems involved in removing victims from elevated or below grade areas.
- 17. Personnel shall be trained so as to meet the requirements for confined space rescue as specified in OSHA 1910.146, Permit Required Confined Spaces for General Industry, Paragraph K Rescue Services.

#### Medium Operational Level

Personnel shall meet all Basic level training requirements. In addition, personnel shall be trained in hazard recognition, equipment use and techniques required to operate safely and effectively at structural collapse incidents involving the collapse or failure of light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. Personnel at this level will also be trained in basic trench collapse rescue and intermediate (basic high angle) rope rescue as specified below:

- 1. Personnel shall be trained to recognize the unique hazards associated with the collapse or failure of light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. Training should include but not be limited to the following:
  - a. Recognition of the building materials and structural components associated with light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction.
  - b. Recognition of unstable collapse and failure zones of light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction.
  - c. Recognition of collapse patterns and probable victim locations associated with light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction.
- 2. Personnel shall have a working knowledge of the resources and procedures for performing search operations intended to locate victims who are not readily visible and who are trapped inside and beneath debris of light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. Training should include but not be limited to the following:
  - a. Types of search resources: Urban Search and Rescue Dogs, Optical Instruments (Search Cameras) and Seismic/Acoustic Instruments (Listening Devices).
  - b. Capabilities of search resources.
  - c. Acquisition of search resources.
  - d. Basic concepts of managing an US&R response team.
- 3. Personnel shall be trained in the procedures for performing access operations intended to reach victims trapped inside and beneath debris associated with light frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. Training should include but not be limited to the following:
  - a. Lifting techniques to safely and efficiently lift structural components of walls, floors or roofs.
  - b. Shoring techniques to safely and efficiently construct temporary structures needed to stabilize and support structural components to prevent movement of walls, floors or roofs.
  - Breaching techniques to safely and efficiently create openings in structural components of walls, floors and roofs.
  - d. Operating appropriate tools and equipment to safely and efficiently accomplish the above tasks.
- 4. Personnel shall be trained in the procedures for performing extrication operations involving packaging, treating and removing victims trapped inside and beneath debris associated with light

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frame construction, reinforced and unreinforced masonry, concrete tilt-up and heavy timber construction. Training should include but not be limited to the following:

- a. Packaging victims within confined areas.
- b. Removing victims from elevated or below grade areas.
- c. Providing initial medical treatment to victims at a minimum to the BLS (Basic Life Support) level
- d. Operating appropriate tools and equipment to safely and efficiently accomplish the above tasks.
- 5. Personnel at this level shall be trained in basic trench collapse rescue. Training should include but not be limited to the following:
  - a. Shoring techniques to safely and efficiently construct temporary structures needed to stabilize and support trench sides to prevent further collapse.
  - b. Packaging victims within a trench collapse.
  - c. Accessing and removing victims from a trench collapse.
  - d. Providing initial medical treatment to victims at a minimum to the BLS (Basic Life Support) level.
  - e. Operating appropriate tools and equipment to safely and efficiently accomplish the above tasks.

#### Heavy Operational Level

Personnel shall meet all Medium level training requirements. In addition, personnel shall be trained in hazard recognition, equipment use and techniques required to operate safely and effectively at structural collapse incidents involving the collapse or failure of reinforced concrete or steel frame construction. Personnel at this level will also be trained in advanced rope rescue, trench rescue and confined space rescue.

#### TRAINING CURRICULUM and POSITION REQUIREMENTS

The required training will be different for each of the various levels of response as well as each position. The logical method of training program development is to continue with the building block or modular concept as is used in the present rescue curriculum. This concept assumes the need for different levels of training and offers sequential courses which are built upon to achieve the required level of training.

The following page outlines the minimum training requirements for each of the operational levels. Based on the stated training requirements, the following training programs are intended to be used in fulfilling these requirements:

#### **Basic Operational Level**

39 Hours
42 Hours
12 Hours
16 Hours
21 Hours
14 Hours
6 Hours
21 Hours
16 Hours
24 Hours
8 Hours
8 Hours
4 Hours
4 Hours
4 Hours

#### Medium Operational Level

Medium Const. Related to Building Failure	8 Hours
MSCO: Tools	16 Hours
Void Search and Rescue Concepts	8 Hours
MSCO: Void Search and Rescue	16 Hours
Shoring Concepts	8 Hours
MSCO: Interior Shoring	16 Hours
MSCO: Exterior Shoring	16 Hours
Rescue Heavy Rigging Operations	16 Hours
Basic Trench Collapse Operations	16 Hours
Intermediate Rope Rescue	27 Hours
Team Management *	8 Hours
Medium Operational Level Scenarios and Testing *	16 Hours
Logistics II *	TBD
WMD: Tactical Considerations	16 Hours
WMD: Concepts	16 Hours

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### Heavy Operational Level

Heavy Structural Collapse Operations *					
Building Construction & Structural Triage	4 Hours				
Advanced Structural Shoring *	8 Hours				
Concrete Breaching & Breaking	8 Hours				
Advanced Rope Rescue I		36 Hours			
Advanced Rope Rescue II		36 Hours			
Advanced Trench Collapse Operations		16 Hours			
Adv. Confined Space Rescue *		16 Hours			
Heavy Ops. Scenarios & Testing *		16 Hours			

<sup>\* -</sup> Indicates programs not already developed.

It should be noted that some of these training prorgrams are intended to be offered not only as a part of this program but as stand alone courses that can be used to train other fire departments with specific needs.

### **BASIC OPERATIONAL LEVEL** TRAINING AND EXPERIENCE REQUIREMENTS

	Firefighting Essentials Or FF 1	Incident Command	Mask Confidence	Accident Victim Extrication (A VET)	Rescue Tech.: Basic	Confined Space Awareness & Safety	Confined Space Rescue	Hazardous Materials First Responder Ops	Hazardous Materials Tech.	Basic Structural Collapse Ops.	Basic Trench Collapse Concepts	Team Logistics I	WMD: Awareness	WMD: Decon	Other Requirements (As Described in the Position Description)
Regional Response Team Leader															Demonstrated Mgt. Exper. As Specified  EMS as Specified
Safety Officer															Demonstrated Mgt. Exper. As Specified EMS as Specified
Rescue Team Manager															Demonstrated Mgt. Exper. As Specified EMS as Specified
Rescue Squad Officer															Demonstrated Mgt. Exper. As Specified EMS as Specified
Rescue Specialist															EMS As Specified
Technical Search Specialist															EMS As Specified
Canine Search Specialist															Canine Certification As Specified  EMS as Specified
Technical Team Manager															Demonstrated Mgt. Exper. As Specified  EMS as Specified
Structures & Asst Specialist															Certification & Exper. As Specified  EMS as Specified
Heavy Equip. & Rigging Specialist															Experience As Specified  EMS as Specified
Haz Mat / Decon Specialist															Experience As Specified  EMS as Specified
Medical Team Mgr. / Specialist Specialist															Certification and Experience As Specified
Logistics Specialist															Skills As Specified  EMS as Specified
Technical Information Specialist															Skills As Specified  EMS as Specified
Communications Specialist															Knowledge As Specified  EMS as Specified
	uisite Tra		to Pos	sit ion)				Re	comme	ended T	raining	ction or	Active	Assion	ment)
` *	onal Rec			g for Acti	ive		_	(11	J. 178611	- amoij 1	. 3. 3010		200110	- 2001611	12/01/02

### MEDIUM OPERATIONAL LEVEL TRAINING REQUIREMENTS

	Med. Const. Related To Bldg. Failure	MSCO: Tools	Shoring Concepts	Interior Shoring	Exterior Shoring	Void S&R Concepts	Void S&R	Rescue Heavy Rigging	Basic Trench Collapse	Intermediate Rope Rescue	Team Management	Logistics II	Scenarios & Testing	WMD Concepts	WMD Tactical Cons iderations
Regional Response Team Leader															
Safety Officer															
Rescue Team Manager															
Rescue Squad Officer															
Rescue Specialist															
Technical Search Specialist															
Canine Search Specialist															
Technical Team Manager															
Structures / Asst. Specialist															
Heavy Equip. & Rigging Specialist															
Hazardous Materials Specialist															
Decon Specialist															
Medical Team Manager															
Medical Specialist															
Logistics Specialist															
Technical Information Specialist															
Communications Specialist															
			Re Ac	equired T	raining signment	for		Rec	commen	ded Traii	ning			12/01/	02

# HEAVY OPERATIONAL LEVEL TRAINING REQUIREMENTS

Heavy Const. & Triage Advanced Structural Shoring

Shoring
Concrete Breaching
& Breaking

Advanced Rope Rescue I & II Advanced Trench Collapse Operations Advanced Confined Space Heavy Operations Scenarios & Testing

Regional Response Team Leader Safety Officer Rescue Team Manager Rescue Squad Officer Rescue Specialist Technical Search Specialist Canine Search Specialist Technical Team Manager Structures/ Asst. Specialist Heavy Equip. & Rigging Specialist Hazardous Materials Specialist Decon Specialist Medical Team Manager Medical Specialist Logistics Specialist Technical Information Specialist Communications Specialist

Required Training for
Active Assignment

New York State Office of Fire Prevention and Control

New York State Office of Fire Prevention and Control