



Northeast Fire Department Association

Operations

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NEFDA Hazardous Materials Response Team

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NEFDA President

I. PURPOSE

The intent of these Standard Operating Procedures is to provide each NEFDA city with an understanding of the pre-arrival needs, mode of response, and the method of operation of the NEFDA Hazardous Materials Response Team. It is essential that each member city understand that this is a team effort – involving the cities as an entity and the NETC Hazardous Material Team – coordinated for the mitigation of potentially serious problems. The successful and safe outcome of these problems can only come about through this team effort.

II. DEFINITIONS

First Responder Operations Level – Individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, and the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders, operations level have the training and knowledge required by 29 CFR Part 1910.

Hazardous Materials Spill – Denotes the actual or potential release of a substance (gas, liquid, solid or energy) which threatens the health, safety or welfare of the citizenry or the destruction of property, either public or private.

Hazardous Materials Technician – Individuals who respond to releases or potential releases for the purpose of attempting to stop the release. They assume a more aggressive role than a first responder at the operations level in that they will attempt to approach the point of release in order to plug, patch, or otherwise stop the release of a hazardous substance. Technicians have the training and knowledge required by 29 CFR Part 1910.120.

Host City – This is the city/fire department that the Hazmat Unit is currently housed in.

Isolation Zones – These are geographic areas that the incident scene is divided into based on the level of exposure.

Exclusion Zone – (Hot Zone, Restricted Zone, Hotline) The area of maximum hazard. Area restricted to essential personnel wearing proper protective clothing and having an assigned specific activity.

Contamination Reduction Zone (CRZ) – (Warm Zone, Limited Access Zone, Contamination Control Line) Surrounds the exclusion zone and is also a restricted area. This is where the decontamination area is located. The level of personal protection required may be less than that of the hot zone.

Support Zone – (Cold Zone, Isolation Perimeter) The unrestricted area beyond the outer perimeter of the CRZ.

NEFDAHMRT – Northeast Tarrant County Hazardous Materials Response Team.

Protection Zone – A functional area which defines the boundaries to be evacuated or which sheltering in-place is the method of protection.

Team Member – Personnel who have been assigned by their member departments to the NEFDAHMRT.

III. NEFDAHMRT CITIES RESPONSIBILITIES

Each participating city shall assign members of their department for duty on the NEFDAHMRT. These assignees shall receive training to the Hazardous Materials Technician level.

Each participating city shall appoint a team member to act as that cities Hazmat Team Coordinator. This person is responsible for the quarterly training, attendance at called meetings and to insure post response critiques are completed.

Each participating city shall assign a minimum of two (2) persons, per shift, for duty on the NEFDAHMRT.

Each NEFDA city shall train all their personnel in decontamination procedures to assist the NEFDAHMRT decontamination.

Each NEFDA city is responsible for medical treatment, triage and transportation within their jurisdiction. During Level 2 incidents, that city shall provide an MICU in standby status at the hazmat incident.

A medical surveillance program for NEFDAHMRT members will be instituted in accordance with *OSHA Regulation*.

All NEFDAHMRT members will be required to be medically certified as fit for participation in the program.

Medical exams will be provided for any member when deemed necessary by the Incident Commander, due to an unusual exposure or other unusual circumstance.

Each member city of NEFDA shall maintain jurisdictional responsibility of their own incident.

This responsibility will include:

1. Ultimate authority of the incident scene.
2. Responsibility for financial obligation relative to hazard mitigation, including but not limited to, reimbursement to the NEFDAHMRT for any and all equipment and/or supplies used.
3. Scene safety for all participants and civilians.
4. Request for assistance from outside agencies and other city services.

IV. COMMAND RESPONSIBILITIES

The following NEFDAHMRT Standard Operating Procedures are guidelines to follow.

The Incident Command System, as outlined by the National Incident Management System (NIMS), shall be used at all hazardous material emergencies that the NEFDAHMRT has been called to.

Incident Commanders shall have the training and knowledge required by 29 CFR 1910.120.

The first arriving Fire Department Officer at the scene of a hazardous material incident shall immediately notify their communications, taking into full account the limitations enforced by the circumstances involved, and to the best of his/her ability provide the following information:

1. Exact location of the incident if different from announced.
2. Type(s) and amount of material(s) involved.
3. Extent of personal injuries and/or property damaged.
4. Whether the material(s) has entered the storm drain or sanitation system, or is likely to do so.

Take the following action(s):

1. Call for the NEFDAHMRT if they are needed at the incident. Level of response requested should be determined and relay through communications.
2. Isolate and hold all persons who have been contaminated.
3. If possible, apply appropriate control techniques.

4. When required, start immediate evacuation of the area affected and establish a isolation and protection zone.
5. To the best of his/her ability, restrict the flow of hazardous materials or the run off from the fire streams from entering storm drains, watershed areas, or the sewer system.
6. Continue command until the incident has been resolved or until properly relieved by a senior Fire Department Officer.

V.

INCIDENT COMMANDERS (CHIEF OFFICERS)

Establish a field command post outside of the safety perimeter and announce said location to communications. This location should be relayed to the NEFDAHMRT because this is the location they should respond to for pertinent information about the incident. All procedures taken, up to the teams arrival and data collected should be available at this location.

Establish a staging area for support personnel and equipment, both civilian and fire department.

Take command of onsite operations working directly with and supporting the NEFDAHMRT and make decisions based upon the knowledge of he responding team members.

Direct the efforts of all cities and outside agencies involved in emergency operations related to the spill by acting through respective representatives, who will retain control of their respective forces. This will maintain a direct route of communications for the team to receive the necessary resources for mitigation of the incident.

Determine as soon as possible if the situation creates a real or potential threat to life, health or property. If it does, command will designate that both a protection and isolation zones be established.

Establish a medical/triage sector as needed.

VI.

RESPONSE LEVELS AND NOTIFICATION

General Information – There are two (2) levels of response recognized by the NEFDAHMRT.

The purpose of the two (2) levels of response is to, not place any unnecessary strain on department personnel. Thus reducing the loss of protective services to each of the respective NEFDA departments. Hazardous material incidents tend to be quite lengthy in duration, and any avoidable strain on manpower should be considered by the Incident Commander. The level of response shall be the sole responsibility of the Incident Commander, based upon his/her specific departmental needs in handling a hazardous material incident. The NEFDAHMRT shall operate under the respective Incident Commander.

1. Level 1

This level of response shall be primarily for the control of small, easily contained incidents or for the purposes of complementing equipment already available to the NEFDA city.

This level is a limited response. The Host City Fire Department will respond the Hazmat unit, with two (2) personnel, to all requests for it. When available, up to two (2) NEFDAHMRT members, from that department, will respond with the vehicle. This is basically a limited response with equipment only.

Personnel from the Host City will assist in the utilization and maintenance of equipment and supply inventory.

The number of NEFDAHMRT members at the incident will include those from the city in which the incident occurs, and those who responded with the Hazmat Unit.

2. Level 2

This level of response is for manpower from NEFDAHMRT participating cities in addition to all Hazmat Units/equipment.

**VII.
NOTIFICATION**

Notification of the NEFDAHMRT shall be at the discretion of the NEFDA City's Incident Commander. The Incident Commander shall, upon determination of need, request a response from the NEFDAHMRT, specifying the appropriate level or response, and supply any available pertinent information.

When a hazardous materials spill occurs, the requesting city's Incident Commander should consider the following breakdown in the flow of information that is pertinent. This breakdown is based upon the understanding of NIMS.

**VIII.
DISPATCHING THE TEAM**

The following procedures shall be instituted when requesting the NEFDAHMRT.

1. Level 1

The member city requesting the NEFDAHMRT, for a Level 1 response shall notify the Host City Communications Center (Dispatch), and request the Hazardous Material Response Unit.

Information needed by the Host City Dispatch.

- Name of city "requesting assistance"
- Nature of incident (size/quantity/amount of product)
- Address of incident
- Mapsco page number and coordinate
- Direction unit should arrive from
- Level of response
- Response code (1 or 3)
- On scene contact information

2. Level 2

This is a full response incident, requiring equipment and personnel.

The city requesting the NEFDAHMRT for a Level 2 incident, shall contact the Host City Dispatch, the same as for a Level 1 incident.

The host city is responsible for contacting NEFDAHMRT cities for assistance at an incident:

Bedford Fire Department
Colleyville Fire Department
Eules Fire Department
North Richland Hills Fire Department
Richland Hills Fire Department
Roanoke Fire Department
Southlake Department of Public Safety
Trophy Club Fire Department
Watauga Fire Department
Westlake Fire Department

Cities receiving requests for team member response, shall forward an estimated time of arrival of those members, to the requesting city, as soon as it is available.

IX. INCIDENT ARRIVAL

Following the briefing from the Incident Commander, the NEFDAHMRT will select a Hazmat Division Commander. This person must be a member of the NEFDAHMRT and a hazardous material technician. It is recommended that the Hazmat Division Commander not be a member of the incident city.

The NEFDAHMRT will confirm the information from the briefing and begin to formulate a recommended course of action. The NEFDAHMRT will then take charge of the exclusion and contamination reduction zone, operating under the Incident Commander. The NEFDAHMRT will inform the Incident Commander of their recommended course of action. It shall be the responsibility of the Incident Commander to accept or deny this course of action and/or recommendation.

X. INCIDENT PROCEDURES

The following procedures are to be used as a guide only. One or more steps may be added or deleted to better suit the needs of a particular incident and/or situation.

1. Isolation Zone (See Appendix A)

Exclusion zone
Contamination reduction zone
Support zone

2. Identify Problem

Accident
Spill/Leak

Rescue/Life Safety
Fire Hazard
Environment
Weather Conditions

3. Identify Product (Minimum of three (3) references)

Company Representative/shipping papers
Hard copy literature
Material safety data sheets
NEFDAHMRT Computer Data

4. Confirm Product

Double check references
Phone shipper (if needed)

5. Select Protective Clothing

Select the Personal Protective Ensemble (PPE) adequate to protect against the risks.
Use the manufacturer's compatibility charts or other references available in the Hazmat Unit.

6. Develop a Plan of Action

Have a backup plan
Establish sectors
Be prepared to modify actions
Monitor weather conditions

7. Contain Product

Dam/Dike
Diversion
Filter
Remove uninvolved materials

8. Locate Leak "if not known"

From a distance
Determine equipment needed to repair

9. Control Leak

Valve shutdown
Patch
Plug
Over-pack
Disperse "Water spray"

10. Stabilize Situation

- Foam suppression
- Neutralize/Dilute
- Absorb/Adsorb
- Cool containers
- Remove ignition sources

11. Decontaminate

- Personnel
- Equipment

12. Medical Evaluation

- Medical screening of all personnel
- Exposed personnel at site
- Follow-up at medical facility

13. Terminate Incident

- Complete incident report
- Complete inventory form
- Complete release from liability form
- Is hazardous material spill notification required

14. Post Incident Analysis

Due to the complex and chaotic nature of emergency response, very few incidents go perfectly. A post-incident analysis is probably the best way to ascertain if an incident was handled properly. This is a comprehensive formal review of the emergency. It should be conducted by the Incident Commander from the incident city and include input from each participating agency.

The post-incident analysis should be a positive learning experience. It is to be used to make future incidents more productive, safe and manageable. A responsible party from each agency should discuss what part their agency played, why it was done and how it may be done more effectively in the future.

If deficiencies are noted during the critique, it is imperative they be addressed. The Hazmat Team Coordinator is responsible for addressing, resolving and/or forwarding critiques, problems and/or solutions to the Coordinators Committee or Governing Board.

**XI.
OPERATING Groups**

The NEFDAHMRT will consist of a minimum of three (3) separate and distinct groups, each under the overall supervision of the Hazmat Sector Commander. Each group will have a leader. Group Leaders shall be selected by the Incident Commander and/or Hazmat Sector Commander.

The Hazmat Incident Commander shall be responsible for the personnel accountability of all persons working inside the exclusion and contamination reduction zones.

The three groups are:

1. Safety

Safety Officer shall be assigned by he Hazmat Division Commander.

The Safety Officer shall have knowledge in the operations of hazardous materials emergency operations.

The Safety Officer is responsible for overall incident site safety, and will notify the Incident Commander and/or Hazmat Division Commander of any unsafe conditions or operations that they observe.

The Safety Officer shall be included in the decision making process on any and all operations, including pre-entry briefings.

The Safety Officer shall be responsible for time keeping of the event.

The Safety Officer shall have the authority to stop any and all activities that they determine to be unsafe.

2. Operations

Resource

A member of the host city is recommended for this position

Chemical information

Selection of personnel protective ensemble (PPE)

Documentation of the incident

Inventory of equipment used

Copies of the incident and inventory form are to be left with the Incident Commander prior to the hazmat unit clearing the incident.

Exclusion Zone

Rescue

Containment

Control

The following considerations apply to operations conducted within the exclusion zone.

Entry into the exclusion zone shall be restricted to hazmat technician level trained personnel or those possessing particular knowledge of the situation at hand. These personnel shall be in the appropriate level of protective clothing and will function under direct control of the Operations Officer. Entry will not be made into the exclusion zone until permission is obtained by agreement between Division Officers and the Incident Commander.

The level of protective clothing for exclusion and contamination reduction zone operations shall be specified by the Operations Division Officer, after consultation with the Hazmat Sector Commander.

Generally, operations shall be conducted utilizing teams of two (2) personnel each, a primary entry team and a backup entry team. The backup entry team shall remain at the entry/exit point to the Exclusion zone and ready to make entry if needed.

Prior to entry into the Exclusion Zone, both primary and backup entry teams will be fully briefed as to expected conditions, goals, decontamination, etc. Members will discuss emergency procedures on each entry as the situation warrants.

All entry teams will have a means of communicating (two way radio) with the Hazmat Sector Commander, Operations Division Officer and the Safety Officer. Also, entry teams will have monitoring equipment appropriate for the incident.

The maximum working times for entry personnel on SCBA's will be determined during the pre-entry briefing with the Hazmat Branch Commander and Safety Officers.

3. Decontamination Group

Consists of personnel from the requesting city and, depending upon level of response requested, members of the NEFDAHMRT as technical advisors.

The Decontamination Officer, in conjunction with the Hazmat Branch Commander, is responsible for determining the most appropriate decontamination procedures and managing the decontamination process. The Decon Officer will determine when tools and equipment may be released from the contamination reduction zone. No items shall be removed without approval.

Decontamination Area shall be established in the contamination reduction zone, adjacent to the entrance/exit corridor to the exclusion zone.

The Decon Officer is responsible for the inspection of persons and/or equipment before they can be released from the decon area.

This inspection may be visual or may involve the use of monitoring instruments, when appropriate.

It must be assumed that items or persons coming from the exclusion zone are contaminated.

Precautions include:

During the decontamination process, all personnel working in the decon area must be adequately protected from contamination.

The Decon Officer will identify and require the appropriate protective equipment.

Members of the decon team and their equipment will also require decontamination.

Any run-off or residue from the decontamination procedures must be retained for proper disposal.

The Decontamination Officer shall be responsible for the evaluation and monitoring of the physical condition of all personnel working in the exclusion and contamination reduction zones, and shall arrange for further medical evaluation and treatment of victims and/or personnel as needed.

Patients in need of medical treatment should be removed from the source of contamination as quickly as possible, but remain within the CRZ perimeter. These patients must not be allowed to contaminate further areas or persons. The Decon Officer may release individuals to the care of EMS who are substantially decontaminated and direct them to medical facilities for further evaluation or decontamination.

The transportation of decontaminated individuals and the notification to the hospital(s) of these incoming patients, will be handled by the Treatment/Triage Officer or the Incident Commander.

The Decon Officer shall ensure that all persons working in the CRZ or exclusion zone have a pre and post entry medical screening. Failure of post-entry vital signs to return to within 10% of pre-entry levels within 10 minutes shall exclude that person from re-entry in one of those zones.

When persons are decontaminated by the decon team they may be released to leave the contamination reduction zone. This includes fire department personnel, other emergency personnel, civilians and patients. The Decon Officer will determine when it is appropriate to release custody of protective clothing, personal effects and equipment. Individuals may also be directed to shower, change clothes or take other secondary decontamination measures.

XII. PROTECTIVE CLOTHING

The choice of protective clothing will depend upon the hazards and the properties of the involved materials. The following levels of protection shall be employed by the NEFDAHMRT as appropriate.

Level A – To be selected when the greatest level of skin, respiratory and eye protection is required.

Level B – The highest level of respiratory protection is necessary but a lesser level of skin protection is needed.

Level C – The concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met.

Level D – A work uniform affording minimal protection, used for nuisance contamination only.

All encapsulated garments shall be tested annually.

Any personal protective garment that has been donned, placed in service or contaminated, will not be returned to service on the Haz-Mat unit.