TOLEDO FIRE & RESCUE DEPARTMENT

C-47 Hazardous Materials Response

Emergency Manual

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Purpose: The purpose of this guide is to establish an emergency response plan and standard operating guidelines (SOG) which define the responsibilities of emergency response personnel when responding to hazardous materials incident (HAZMAT).

Policy/Procedure

Proper utilization of this SOGs and common sense can help prevent a HAZMAT incident from becoming a HAZMAT emergency.

For the purpose of this guide, hazardous materials in broad terms means a substance or combination of substances which, because of quantity, concentration, physical, chemical or infectious characteristics, may either cause or contribute to an increase on mortality, or increase in serious irreversible or incapacitating illness, or pose a present or potential hazard to human life or the environment.

A HAZMAT spill or incident is an occurrence where a hazardous material is dispersed into the environment, or its container is damaged to such an extent that the contents can be expected to be released, with the potential to cause injury to people or harm to the environment.

For the purpose of this guide, shall means mandatory by a regulation, procedure or policy. It is important to remember that on a hazardous materials incident we are, responding to an emergency and all rules, policies, procedures and regulations apply to the TFRD HAZMAT team.

Activation and Responsibilities

1. **Activation:**
    - Official emergency response to a HAZMAT incident is activated upon receipt of notification by Fire Dispatch of any oil, fuel, chemical, biological, and nuclear or other hazardous materials spill or release as well as any potential spill or release that occurs in any of the State of

Ohio's Homeland Security Regions. TFRD hazardous materials team may be called to respond or assist other hazardous materials teams in the State of Ohio when needed.

2. **Minimum Staffing:**

    - Response manning for the TFRD HAZMAT team will be a minimum of fifteen (15) personnel. Ten (10) of the personnel shall have training to the technician level and a current HAZMAT physical. Five (5) members shall be trained to at least the operations level to assist with decontamination set-up.

3. **Scene Management/Lines of Authority:**

    - Scene management may include coordinating a multi-agency response, implementing proper actions to mitigate hazards, and ensuring that appropriate resources are requested timely manner.

    - All HAZMAT incidents shall be managed under the Incident Command System (ICS). This system is defined in the Emergency Procedures manual (section C-57).

        - The command structure at all HAZMAT incidents shall include the following positions:
        - The Incident Commander
        - Incident Safety Officer
        - Public Information Officer
        - Liaison Officer
        - HAZMAT Officer
        - HAZMAT Safety Officer
        - Staging Officer
        - Any position deemed necessary by the Incident Commander

    - When a position is not assigned by the Incident Commander, he/she shall assume the duties of that position.

Incident Stages

1. **Critical Stage**

    - This stage poses the most severe danger to the first responders who are unprotected and approach the scene to identify the materials involved.

    - Necessary steps to ensure adequate protection for personnel include:

        - Establishing a "safe" perimeter using the HAZMAT IQ system and use of appropriate meters
        - Following the HAZMAT IQ system for entering the Hot Zone for line of sight rescue
        - Wearing structural fire gear and SCBA

2. **Containment Stage**

- Once an incident involving hazardous materials has been stabilized, efforts must be directed toward terminating the discharge or release of hazardous materials. On many occasions, stabilization of the incident is most readily achieved by terminating the discharge. Termination of discharge includes:

  - Righting an overturned/spilling bulk container
  - Plugging a leak
  - Closing a valve
  - Pumping the contents of a container into another container (off-loading)
  - Placing a leaking container into an over-pack container
  - Neutralizing or diluting

  - Other agencies may perform this operation if properly trained, it will be necessary to ensure that these actions are accomplished with safety of the public in mind.

3. **Termination/Post Emergency Response Operations**

   - This is the final stage of the incident. As a shipper, spiller, and/or owner are legally responsible for recovery and cleanup, **TFRD HAZMAT team will not actively participate in this stage.** This would place the team in the role of a cleanup company with all the laws and regulations applying.

Weapons of Mass Destruction

When responding to any HAZMAT incident, the presence of Weapons of Mass Destruction must be considered to be involved. If it is determined that there is any presence of Biological, Nuclear or Radiological agents involved, the Toledo Fire and Rescue Department Special Operations Bureau will be notified. A response from that office will assist in dealing with the situation at hand. Other agencies may be requested by the Special Operations personnel to help with the incident.

First Responder’s Initial Actions

1. Actions discussed here are the primary duties of the first responder to initiate, set up and/or perform as the first on scene:

   - Establish command
   - Notify dispatch and oncoming crews of the HAZMAT incident
   - Approach uphill and upwind, as best possible
   - Control site access (deny access to site)
   - Designate an area of refuge – see definition below
   - Set zones per HAZMAT IQ system (solid 75 ft., liquid 150 ft., gas 300ft)
   - Ensure crew has turnout gear with SCBA on
   - Contact involved parties, for any information concerning incident
   - Attempt to identify product utilizing the following:
     - Occupancy and location
     - Container shape

        - HAZMAT IQ charts
        - Markings and colors
        - Placards and labels shipping papers
        - Facility personnel

    - Ascertain if there are viable line of sight victims, and use the HAZMAT IQ step #4 “red light, green light” system to rescue victims (also, refer to the Line of Sight checklist located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Line of Sight tab)

    - De-con any personnel/victims involved with a 60 second flush, contain runoff if possible

    - Identify and call for additional resources needed to assist in mitigating the incident

2. **Area of Refuge:**

    - The area of refuge will be inside the hot zone and to the side as far from the exclusion zone as possible. This area shall be established by the first arriving unit or by the Incident Commander if not done prior to their arrival. The purpose of this area is to contain any exposed personnel until de-con corridor can be set up for the victims. This de-con corridor will be a separate from the responder’s de-con corridor. It should be documented that the area was set up and if it was used.

Command Staff Responsibilities

1. **Incident Command**

    - Established command and set up command post separate from the HAZMAT team
    - Ensure zones are set as well as an area of refuge
    - Assign a Safety Officer
    - Consider assigning Liaison, Staging and Public Information Officers
    - Confer with HAZMAT Officer and HAZMAT Safety Officer to discuss strategies and tactics
    - Request any agencies needed (EPA, Health Department, Environmental Services (See C-121), Law Enforcement) and coordinate these resources
    - Utilize the Incident Command checklist and forms located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Incident Command tab

2. **Staging Officer**

    - The Incident Commander may assign a Staging Officer responsible for tracking resources dispatched to the incident. The staging area will be set up beyond the Cold zone to ensure that the working area will be kept clear of unnecessary personnel. The officer should utilize the Staging Resource forms located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the appendix tab.

3. **Incident Safety Officer**

    - The Incident Safety Officer is a command staff position. He/she monitors safety conditions

and develops measures for assuring the safety of all assigned personnel. The officer should utilize the Incident Safety Officer checklist and forms located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Incident Safety Officer tab.

4. **Public Information Officer**

    - The Public Information Officer interfaces with the public and media and /or with other agencies regarding incident-related information requirements. The Public Information Officer also: Serves as a conduit between the internal and external stakeholders, including the media, or other organizations seeking information directly from the incident or event. The officer should utilize the Public Information Officer Media Report form located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Public Information Officer tab.

5. **Liaison Officer**

    - The Liaison Officer serves as the primary contact for supporting agencies assigned to the incident. Representatives from assisting or cooperating agencies and organizations coordinate through the Liaison Officer.

Hazardous Materials Group Responsibilities

1. **Hazardous Materials Officer**

    - The HAZMAT Officer will be in charge of the operations of the incident. He/she will work with the Incident Commander to establish strategic goals, tactical strategies along with an action plan for the incident. Other duties, but not limited to:

        - Establish the HAZMAT sector and locate the resources in a safe location
        - Supervise field operations including entry and backup teams
        - Complete a risk assessment in-conjunction with HAZMAT Safety Officer and Research
        - Decide what metering should take place and what equipment will be used
        - Ensure that the HAZMAT IQ system has been initiated
        - Implement strategy and tactics for the Hot Zone
        - Coordinate HAZMAT support personnel and their responsibilities
        - Establish communications with the entry team including; radio, hand signals and air horn
        - Confirm the de-con is correct and complete before making any entry
        - The officer should utilize the HAZMAT Officer checklist and forms located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the HAZMAT Officer tab

2. **Entry Team Leader**

    - Entry into the hot zone will be determined by the Entry Team Leader. He/she should take in consideration if there is a line of sight rescue. This may be done by the first arriving unit or the HAZMAT team upon arrival. Using the HAZMAT IQ system for entry will help the officer make these decisions in regards to rescue.

- Before making an entry, a safety briefing shall be done in-conjunction with the Entry leader, Incident Commander, HAZMAT Officer and HAZMAT Safety as to the actions to be taken to mitigate the incident. This will ensure all safety measures have been taken before sending the entry team into the Hot Zone.

- Radio communications for entry will be conducted on a separate channel to limit the possibility of the team's communication being interrupted. Entry team will be communicating directly with the HAZMAT Officer.

- The Entry Team Leader should utilize the HAZMAT Entry Officer checklist located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the HAZMAT Entry Officer tab.

3. **Tender Leader**

   - Responsible for supervising tenders who will assist the entry team in dressing appropriately for the incident. Tenders will check the equipment and PPE needed for making an entry into the hot zone.

   - Leader will ensure the tenders utilize the HAZMAT Tender checklist located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the HAZMAT Tender tab.

4. **De-con Leader**

   - Responsible for the set up and control of de-con corridors. Duties include, but not limited to:

     - Determine the appropriate type of de-con setup in conjunction with the HAZMAT Officer and the HAZMAT Safety Officer
     - Supervise de-con setup and related activities
     - Establish methods and procedures to minimize the spread of contaminants
     - Ensure that all de-con personnel are in correct PPE for the chemical(s)
     - Shall have de-con set up before making entry
     - Control entry and exit to the Hot zone through the de-con corridor
     - Monitors de-con personnel for physical condition and replace if needed
     - Set-up Emergency De-con separate from technical and victim De-con corridors
     - Leader should utilize the HAZMAT De-con Leader checklist located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the De-con Leader tab and the De-con Zones tab

5. **Research Leader**

   - Responsible for gathering information about the chemical(s) involved in the HAZMAT incident. Duties include, but not limited to:

     - Use of electronic and written materials necessary in identifying hazards before making entry
     - Use research information obtained from shipper, spiller or facility personnel with

intimate knowledge of the involved chemicals
- Provide technical support to Command Staff and responders
- Recommend PPE, monitoring & detection equipment
- Recommend decontamination methods and strategies based on the research of the hazard
- Leader should utilize the HAZMAT Research Leader checklist and worksheets located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Research Leader tab

6. **Hazardous Materials Safety Officer**

   - The primary concern of the HAZMAT Safety Officer is with the operations of the incident to include de-con, entry, backup and appropriate PPE. Other duties include, but not limited to:

     - Evaluate the first responders' initial steps and determine if changes are necessary
     - Establish zones including the de-con corridor
     - Provide members with forms packets located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet
     - Supervise research and determine level of protection for the entry and backup teams using chemical compatibility charts
     - Ensure the HAZMAT IQ steps are being followed correctly
     - Coordinates with EMS for medical support and for team member evaluation prior to entry
     - Oversees air supply, time in the Hot zone and physical condition of the entry team
     - Officer should utilize the HAZMAT Safety Officer checklist and Site Safety Plan worksheets located in the Northwest Ohio Region One HAZMAT Incident Management Forms booklet under the Safety Officer tab

7. **EMS Officer**

   - The primary concern of the EMS Officer is the wellbeing of the entry and backup teams. If possible this position should be filled with someone holding an Advanced Life Support certification. Other duties include, but not limited to:

     - Work with HAZMAT Officer and HAZMAT Safety to coordinate any medical issues that arise at the incident
     - Shall have a medical evaluation of all entry personnel completed before entry and after exit.
     - Coordinate with local medical facility in case treatment is needed for victim or team member.
     - Prepare on scene Advanced Life Support to treat if exposure occurs
     - Have an Advanced Life Support unit on scene for the team, if used for a victim or responder request an additional Advanced Life Support unit to the scene
     - Take appropriate steps to prevent the contamination of transport unit(s) from hazardous chemicals
     - Verify that all persons contaminated or exposed has been de-coned, at least with a 60 second water flush
     - Officer should utilize the EMS Officer checklist and worksheets located in the Northwest

Ohio Region One HAZMAT Incident Management Forms booklet under the EMS Officer tab

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See Also:

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https://www.tfrdpolicies.com/dokuwiki/doku.php?id=c_manual:c47

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