
Section: 7.1 Hazardous Materials Plan

Effective Date: 01/01/2008

Revision Date: 06/24/2009

Approved by: SMFD Officers 12/05/2007

SCOPE

This guideline applies to all South Metro Fire Personnel responsible for emergency response.

PURPOSE

Hazardous materials incidents encompass a wide variety of potential situations including fires, spills, transportation accidents, chemical reactions, explosions and similar events. Hazards involved may include toxicity, flammability, radiological exposure, corrosives, explosives, health and chemical reactions, or a combination of factors. This plan provides a general framework for handling a hazardous materials incident.

Every incident presents the potential for exposure to hazardous materials; even the products of combustion of an ordinary fire may present severe hazards to personnel safety.

This guideline should in no way be understood as limiting the Incident Commander from using a risk vs. benefit analysis to deviate from this guideline should immediate lifesaving measures be necessary.

SIZE-UP

The objective of a hazardous materials size-up is to identify the nature and severity of the immediate problem and gather sufficient information to formulate a valid action plan. A hazardous materials incident requires a more cautious and deliberate size-up than most fire situations. The following procedures should be used to perform a size-up on a hazardous materials incident:

1. The first arriving officer will establish command and begin a size-up. The first unit must consciously avoid committing itself to a dangerous situation.
2. When approaching, slow down or stop to assess any visible activity taking place.
3. Evaluate effects of wind, topography and location of the situation.
4. Route any other responding companies away from any hazards.
5. Command should make an attempt to identify the hazardous materials involved. In many cases, a scene evaluation by the Dakota County Special Operations Team (DCSOT) may be the safest approach to hazardous materials identification. (A DCSOT Duty Officer is available 24/7 for consultation phone calls and/or scene response by contacting the Dakota Communications Center.)

Common identification methods include:

- Placards and labels
- NFPA diamond
- MSDS
- Shipping Papers (when transported)
- Pre-Fire Plans (when in a fixed facility)
- Container type

INITIAL OPERATIONS

After identifying the hazardous material(s), command should begin initial operations to mitigate the incident. The following procedures outline the steps command should take to initiate operations and formulate an action plan.

1. Command shall establish a command post and staging area, taking into account wind, spill flow, explosion potential, and similar factors in any situation. The DOT Guidebook, NFPA reference materials, NIOSH Pocket Guide, ChemTrec, MSDS, and shipping papers can all be used to determine the safe distance for staging.

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2. Command shall obtain technical information about the hazardous material(s). The resources listed above should give adequate technical information.
3. Command will establish an operational perimeter and notify all emergency personnel of the perimeter.
4. Command will identify operational objectives to mitigate the incident. (i.e. – stop the leak of hazardous material, evacuate citizens for protection, etc.)
5. Command will request appropriate emergency response agencies and support agencies to mitigate the scene. (i.e. – Dakota County Special Operations Team, State haz-mat teams, Minnesota Pollution Control Agency, EPA, etc.)

ACTION PLAN

Based on the initial size-up and available information, command will formulate an action plan to mitigate the situation.

1. The action plan must be based on the operational objectives identified during the initial operations.
2. The action plan should be communicated to all personnel involved in the incident.
3. The action plan should be centered around:
 - Protection of life
 - Confinement of material and its by-products
 - Control of the material and its effects on humans, animals, property, and the environment
4. Fire personnel are trained to the Hazardous Materials: Operations and/or Technician level. **Fire personnel will provide services equal to their level of training and available resources.** Services beyond fire personnel training will be handled by the Dakota County Special Operations Team or other appropriate agency.
5. Monitor progress of the action plan to ensure that objectives are either accomplished or modified according to the dynamics of the situation.
6. In the event of a significant incident, as determined by the Incident Commander, or if there are to be large-scale evacuations, notifications of the appropriate City Emergency Manager and/or County Emergency Manager may necessary.

SAFETY

Safety is a key concern for personnel at a hazardous materials incident. The following procedures shall be used during a hazardous materials incident to ensure safe operations.

1. Command is responsible for the safety of all personnel involved in any incident.
2. The Incident Commander will appoint a Safety Officer for every hazardous materials incident. The Safety Officer will be a qualified fire department officer. The Safety Officer has two areas of responsibility - first, the safety of everyone operating on the incident scene and second, the safety of those operating within the HOT Zone. The Safety Officer has the authority to stop any operations that are deemed unsafe. The Safety Officer shall create a site safety plan.
3. General safety guidelines are as follows:
 - Move and keep people away from the incident scene
 - Do not walk into or touch any spilled material
 - Avoid inhalation of all gases, fumes, and smoke even if no hazardous materials are involved

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- Do not assume that gases and vapors are harmless because of lack of smell
4. Keep in mind the basic safety priorities:
 - Personnel safety
 - Safety of others
 - Environmental impact
 5. All operations up to and including the evacuation process must be accomplished with the idea of overall safety as the key component.
 6. Communication is essential for everyone's safety. Responding agencies should contact command, obtain orders, and verify a means of communication for the duration of the incident (i.e.- radio, phone, face-to-face). All fire personnel should have personal radios when available.
 7. Fire personnel shall wear the appropriate protective clothing. **A minimum of full protective clothing must be worn inside the operational perimeter.** Special protective clothing may be necessary depending upon the nature of the materials involved.
 8. Fire personnel will only provide services equal to their level of training.
 9. Fire personnel should be alert for the symptoms of chemical poisoning and reactions that could threaten the lives of firefighters and other involved personnel.
 10. Personnel exposed to hazardous materials shall receive immediate medical treatment. Keep in mind that many symptoms may be delayed up to 24 hours after contact.

TERMINATION

The Incident Commander's responsibility, beyond that of preserving life and property, is only to identify and, if possible, contain the spill material. Under most circumstances, no attempt should be made to decontaminate a scene unless fire personnel have been trained to do so. The following procedures should be used to terminate a hazardous materials incident.

1. Contact the hazardous material(s) responsible party and determine if they have contracted or request a cleanup and disposal company.
2. The cleanup and disposal company should respond to the incident and perform cleanup and disposal of the hazardous material(s).
3. Fire personnel may assist with cleanup and disposal if it is within the scope of their training.
4. All personnel shall be debriefed before leaving the scene on potential exposures and health issues due to the nature of these responses. Personnel will be directed to proper facilities if any haz-mat related health problems arise.