TOWN OF WATERTOWN FIRE DEPARTMENT
STANDARD OPERATING GUIDELINES

SECTION: **Hazardous Materials Incidents**
SUBJECT: **Hazardous Materials (general)**
REVISED: **7/2013**

PURPOSE:
To establish guidelines for incident evaluation and safe handling of hazardous materials incidents.

POLICY:
It shall be the policy of the fire department to follow these guidelines in the handling of hazardous material incidents and to ensure the safety of the personnel and citizens of the Town of Watertown. The fire department will only act in the roll as hazmat first responders.

RESPONSE:
Response for hazardous materials incidents should be:

1. Pumper/rescue
2. Rescue
3. Pumper
4. Ladder truck (if requested)
5. Fire police vehicle

PROCEDURE:

A. Upon Arrival:

1. Size-up the situation:

a. The first unit must consciously avoid committing itself to a dangerous situation. When approaching, slow down or stop to assess any visible activity taking place. Evaluate the effects of the wind, topography, and location of the situation.

b. The objective of 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.

c. Avoid premature commitment of units and personnel to potentially hazardous locations.

d. Make a careful size-up before deciding on a commitment. It may be necessary to take immediate action to make a rescue or evacuate an area, but this should be done with an awareness of the risk to fire department personnel, and taking advantage of available protective equipment.

e. Don't assume anything!!! A wrong decision while working with hazardous materials can be worse than no decision.

2. Report on Conditions:

a. Once conditions are identified, request appropriate hazmat response.
LEVEL 1 – Hazmat team commanders
LEVEL 2 – Hazmat bus and team members
LEVEL 3 – Countywide hazmat team, including City of Watertown and Ft Drum.

3. Establish an operational perimeter, set up zones (hot, warm, cold).

4. If the involved incident has occurred on a public road, highway, or interstate request hazmat team, and coordinate with the same.

5. Initiate material identification operation:

a. It is imperative that the first arriving fire department unit determine what hazardous materials is involved, and how much, prior to contacting hazmat team and taking action to stabilize the incident.

b. Entering the scene to make positive identification will be the task of the hazmat team.

c. Action taken prior to determining the product involved may be totally wrong and may severely compound the problem.

d. Transportation emergencies are often more difficult than those at fixed sites. The materials involved may be unknown, warning signs may not be visible, or obstructed by smoke and debris, the driver may be killed or missing. DOT hazardous materials marking systems are inadequate because some hazardous materials in quantities up to 1000 lbs do not require a placard and there may be combinations of products involved with only a "Dangerous" label showing. Sometimes only the most evident hazard is identified while additional hazards are not labeled.

6. Attempt to identify the involved materials by way of the following:

a. Check placards and/or labeling.

b. Check paperwork associated with the materials transportation or storage.

c. Check with persons directly related to the accident/incident i.e. driver, owner, trainman, technician, plant manager, etc.

d. Contact shipper and/or manufacturer.

e. Obtain the exact spelling of the materials involved.

B. Initial Operations:

1. Establish a command post at least 1000 feet from the incident and set up zones. If the incident is on a highway or roadway, make contact with the appropriate law enforcement agency having primary investigative authority and coordinate with same.

2. Obtain technical information:

a. Utilize the DOT hazardous materials emergency response guidebook.

b. Contact Chemtrec (800) 424-9300

c. Utilize the online hazardous materials emergency response guidebook.

d. Utilize other information sources available.

e. Contact the shipper and/or manufacturer.

3. Identify priorities based on the following:

a. The type and magnitude of life hazard involved.

b. The type and quantity of hazardous materials involved.

c. Reference the "D>E>C>I>D>E" mnemonic for determining the steps in dealing with a hazardous materials event.

D – detect the presence of hazardous materials

E – estimate potential harm without intervention
C – choose response level for hazmat team
I – identify action options
D – do best option
E – evaluate progress

4. Identify the objective:
    a. The objectives must be based upon those priorities which have already been identified. They must be flexible enough to account for the dynamics of the situation.
    b. The objectives must focus on confinement and/or control of the involved materials in such a way so as to save lives and to prevent unnecessary exposure of on-scene or nearby personnel to the adverse effects of the involved materials. Objectives must also provide for the protection of uninvolved property and the environment.
    c. Objectives must be clearly understood and well communicated among all levels of the on-scene organization which is attempting to cope with the problem. Close cooperation and coordination is essential if disaster is to be averted.

5. Action Plan. The action plan must be based upon the identified objectives and must be understood by all involved personnel at the scene. The action plan should be centered primarily around the following:
    a. Protection of life.
    b. Confinement of the material and its by-products.
    c. Control of the material and its effects on humans, animals, property, and the environment.

C. Safety:

1. All operations up to and including the evacuation process must be accomplished with the idea of overall safety as the key component.
2. Members shall wear the appropriate protective clothing. A minimum of full turnout must be worn inside the operational perimeter. Special protective clothing will be worn by the hazmat team.
3. Be alert for the symptoms of chemical poisoning and reactions that could threaten the lives of firefighters and others involved.
4. Members who have been exposed to hazardous materials shall receive immediate medical treatment. NOTE: many symptoms may be delayed up to 24 hours after contact.
5. In general; the following safety guidelines should be observed:
    a. Move and keep people away from the incident scene.
    b. Do not walk into or touch any spilled materials.
    c. Avoid inhalation of all gases, fumes, and smoke even if no hazardous materials are involved.
    d. Do not assume that gases or vapors are harmless because of lack of smell.
6. Keep in mind the basic safety priorities:
    a. Personnel safety.
    b. Safety of others.
    c. Environmental impact.

D. Communication:

1. The best, most accurate method of communication is face-to-face, person-to-person communication.
2. Radio directions must be clear, concise, and on the correct channel.
3. Communications during the incident must be of necessity, two way in nature. Information reconnaissance data and suggestions must flow up to command level for evaluation. Clear directions and coordination must flow down from the command level.
4. Direct radio/telephone communication may be made through dispatch and chief vehicle or rescue truck.
5. Channel one should be used when contacting dispatch when requesting contact to other agencies.
6. In incidents which occur on highways, or roadways early and clear communication links must be established between the incident commander and the law enforcement manager to insure successful operations.

E. Coordination and Control:

1. State Law provides that the on-scene fire incident commander is in charge of the incident and coordination of all agencies handling the incident.
2. The fire department shall establish the command post for all agencies working at a hazardous materials incident.
3. The fire department will conduct an after action report with all agencies involved after the incident completion.

F. Clean up and Disposal:

1. The incident commander's responsibility, beyond that of preserving life and property, is only to identify and, if possible contain the spilled material. Under most circumstanced, no attempt should be made to "decontaminate" a spill unless directed and supervised by responsible parties from the hazmat team and/or other technical advisers. Professional disposal companies and/or teams should be utilized for clean up and disposal. Use of this resource is expected, but will normally occur after local expertise is on hand.

G. Procedures: It must be remembered that any and all procedures which may be carried out at a hazardous materials incident must be based upon and compatible with the physical properties of the involved materials. The following list contains some basic guidelines which may apply to hazardous materials situations in a general sense. The nature of materials involved will dictate more specific procedures.

1. Take all feasible steps necessary to protect or save human life. Safeguard property insofar as practical.
2. Take actions to contain and/or prevent the spread of the material. Spread sand or other collection agents, build dikes, etc. Control run off water at fires.
3. Keep the public as far from the scene of the incident as reasonably possible. In case of nuclear weapons, or nuclear waste incidents keep the public at least 2000 feet away and contact DOD at Ft Drum.
4. Isolate for further examination of those persons who may have had contact with the material. Obtain names and addresses of those involved.
5. Remove injured persons from the area with a little direct personnel contact as possible. Hold them at a transfer point for first aid. If serious injury has occurred, demanding more than first aid measures, the patient should be sent, at once to the nearest emergency room for medical attention. Advise medical attendants and facilities of possible contamination and what material is involved.
    a. Medical first aid is directed primarily at restoration of breathing, control of bleeding, splinting of fractures, prevention of shock, and control of pain.

These are carried out for exposed person in the same basic fashion as for a non-exposed individual.

b. First aid for contaminated persons consists of cleansing the skin of obvious dirt, if feasible, carefully remove the outer garments and shoes of the patient, and wrapping them mummy fashion in a blanket. By this measure, any remaining contamination is contained and if the wrapping is carefully done, the victim can be moved with little likelihood of spreading contamination.

6. If incidents involve fire or material subject to blowing in the wind, conduct operations from upwind positions. Keep out of smoke, fumes, or dust resulting from the incident. Segregate clothing and tools used at the scene until they can be checked for contamination. Do not handle suspected material until it has been inspected and released by qualified technical experts.

7. In a vehicle accident involving hazardous materials, detour all traffic around the accident scene.

8. Do not eat or drink or smoke in the accident area. Do not use food or drinking water that may have been in contact with material from the incident area.

9. Take only necessary emergency actions prior to the arrival of a qualified hazardous materials specialist, team and/or physician.

10. There are basically four different methods of handling hazardous materials spills or leaks. They are:

a. Absorption.
b. Containment.
c. Separation.
d. Neutralization.

11. Sometimes, a non-attack posture is the best approach to a hazardous materials problem. A dire in any of the following materials should signal a non-attack posture and immediate evacuation of the surrounding area:

a. Explosives A or B
b. Oxidizers.
c. Organic Peroxides.

12. Hazardous materials must not be carelessly washed down storm drains or sewers. Such action could compound the problem and hasten disaster.

13. In some cases, it may be better to let a fire involving certain hazardous materials to burn. In such cases the run off water from fire extinguishment operations may pose more of a hazard than the fire itself.

14. Fires involving hazardous materials in closed containers such as tank trucks, tank farms, etc., require special decision making considerations and may also indicate a non-attack posture.