GLASTONBURY FIRE DEPARTMENT

STANDARD OPERATING GUIDELINES

SOG NUMBER: HZT-001	ISSUED DATE: 01-03-05	EFFECTIVE DATE: 01-03-05
REVISION #: 2	REVISED DATE: 01-11-16	EFFECTIVE DATE: 01-11-16

CATEGORY: HAZ-MAT

SUB-CATERGORY: EMERGENCY RESPONSE - GENERAL

SUBJECT: HAZARDOUS MATERIALS INCIDENTS

Section I – Introduction

A. Objective

To standardize the department's response to incidents involving the release of or potential for release of any hazardous chemical or Weapon of Mass Destruction (WMD). This guideline contains general steps to be followed at all incidents involving hazardous chemicals or WMD. These guidelines should be followed unless altered by a site specific Pre- Plan or Site-Incident Specific Guideline.

B. Applicability

Based on the current levels of training and equipment, Glastonbury Fire Department shall respond to any incident involving hazardous chemicals at the Hazardous Materials First Responder – Operational level as defined in OSHA regulations 29CFR 1901120(q).

The Glastonbury Fire Department shall respond to incidents for the purpose of protecting nearby persons, property, or the environment from the effects of the release.

Members shall be trained to respond in a defensive fashion.

Their function is to contain the release from a safe distance, keep it from spreading and preventing exposures.

All members of the department will be trained to the operational level as defined in 29CFR 1910.120 and all Officers will be trained the level of On-Scene Incident Commander as defined in 29 CFR 1910.120.

The guidelines outlined on the following pages shall be followed at any incident involving the actual or potential release of any hazardous chemicals or WMD.

Unless altered by a Site-Specific Pre-Plan or Incident Specific Guideline, deviation from these guidelines should be limited to tangible documented actions that are necessary to bring the incident to a safe conclusion.

C. References

29 CFR 190
NFPA 471,472, 1500
Town of Glastonbury Hazardous Materials Operation Plan

Section II – Initial Notification

A. Upon receiving a report of a suspected or confirmed hazardous material incident, the Glastonbury Fire Department shall respond in the following manner

1. Single Company Response

a. Natural/L.P. Gas Odors – outside
b. Natural/L.P. Gas Leak – outside, house service 20lb cylinder
c. Gasoline spills NO Fire – outside less than 20 gallons
d. Fuel Oil/Petroleum Spill – outside, under 55 gallons
e. Minor spills from MVA
f. Unknown odor outside a building
g. CO alarms/incidents with or without symptoms
h. Unknown substance (Add heavy Rescue)

2. A Two Company Response

a. Natural/L.P. Gas Leak – inside
b. Natural/L.P. Gas Leak – outside, Commercial building/100 lb cylinder
c. Natural/L.P. Gas Fire – inside or outside
d. Gasoline Spill – outside over 20 gallons
e. Gasoline Spill – inside of building
f. Fuel Oil/Petroleum Spill- outside over 55 gallons
g. Fuel Oil/Petroleum Spill – inside a building
h. Unknown Odor – inside building
i. Chemical Release – any chemical not listed above
j. Chemical Release – fixed facility; moving off site
k. Any fire involving hazardous chemicals
l. Any incident involving WMD

B. Upon arriving at an incident that was not originally dispatched as a possible hazardous material incident and discovering any of the conditions described above, the Officer of the first due engine should notify Glastonbury Dispatch to modify the incident and to dispatch the appropriate assignment.

Section III – Initial Response

A. Any Fire Department response to a confirmed or suspected hazardous material incident shall follow the guideline established in the 8-step process for hazardous materials incident management.

B. The first arriving Fire Department apparatus/Officer shall stop at a safe distance prior to the reported incident address. Unless specifically directed by Site/Incident, Specific Pre-Plan, all other responding unit should assume a Level I staging position.

C. No fire department personnel shall approach closer to the scene until an evaluation determines that the approach is safe to make.

D. No fire department personnel will enter any vapor cloud, spilled or pooled material, enclosed/confined space or otherwise contaminated area until the chemical and its hazards have been identified and it can be shown that the proper protective clothing is available and in use.

Section IV – Site Management

A. The first arriving fire apparatus or officer shall establish command in accordance with department guidelines. Refer to FDO-001; FDO-002; FDO-003; FDO-004; FDO-005; FDO-006; FDO-007; FDO-008; & FDO-009.

B. As soon as practical, the Incident Commander shall establish control zones to provide for workers safety. The zones shall be designed as follows:

1. **HOT ZONE**- The area(s) of product release where chemical is present or suspected of being present. This zone may initially be established visually by the first arriving units. The zone may be redefined using metering, monitoring or site specific plans. Initially, any visible vapor cloud, spilled or pooled material, enclosed or confined spaces, shall be considered as the **HOT ZONE.**

   When monitoring is available, any area that produces a reading of greater than 20% L.E.L. shall be classified as the hot zone.

2. **WARM ZONE** - is the area classified outside of the Hot Zone. This area is not contaminated. However, it provides a buffer around the hot zone in the event that a wind shift should occur. The decontamination line should be located in this area. Only those firefighters' wearing full protective PPE and SCBA may operate in this area.

3. **COLD ZONE** – The outermost area of the incident. This area is considered as non-contaminated. The command post, staging area, rehab, EMS treatment area, and other support functions should be located in this area.

C. As soon as practical, the Incident Commander shall evaluate the situation with the department's level of response check sheet and determine the incident level. The determined level shall be reported to dispatch. Based on the level of response, dispatch shall make the appropriate notifications to any and all outside agencies.

D. The early stages of the incident, the Incident Commander shall appoint a SAFETY OFFICER as soon as possible.

E. Any activity that requires either the control of a product or to perform a rescue shall be conducted using the buddy system. All teams shall consist of minimum of two (2) members.

F. When any team enters a hazardous area i.e., Hot Zone, a back-up team of at least two (2) members shall stand-by to provide for rescue should the initial team experience problems.

G. If the Incident Commander determines that additional resources/personnel will be required, a Level 2 staging area should be designed.

Section V – Product Identification/Risk Assessment

A. The Incident Commander shall use all available means to identify the chemical involved before allowing personnel to work in areas where contamination could occur.

B. The Incident Commander should consider the following information to assist in product identification:

1. Occupancy/Location (Pre-Plans)
2. Container Shapes
3. Markings/Colors
4. Placards and Labels
5. Shipping papers and MSDS's
6. Metering/Monitoring

C. The Incident Commander shall determine the physical, chemical, and health hazards of the chemicals involved and determine the appropriate level of protective clothing and respiratory protection.

Section VI- Protective Clothing

A. All members of the Glastonbury Fire Department responding to an incident involving the release of or potential release of hazardous chemicals or WMD, shall don and wear full protective clothing.

1. Full Protective Clothing shall consist of the following:

a. Helmet
b. Nomex Hood
c. Turnout Coat
d. Turnout Pants
e. Boots
f. Gloves
g. Chemical Protective Suits

B. Chemical Protective Suits shall be worn anytime the Incident Commander has determined based on the Product Identification/Risk Assessment, that a higher level of protective clothing is required.

C. Any member of the Glastonbury Fire Department responding to an incident presenting an inhalation or potential for inhalation hazard, shall wear self-contained breathing apparatus until such time as the Incident Commander determines, through the use of appropriate air monitoring equipment, that a lower level of respiratory protection will not result in a hazardous exposure.

D. Access to the Hot Zone shall be limited to those personnel who are wearing appropriate Protective Clothing including SCBA and have the appropriate level of training.

Section VII – Product Control

A. Members of the Glastonbury Fire Department shall attempt to confine chemicals to the smallest area possible using defensive techniques. Defensive techniques include:

1. Diking
2. Damming
3. Diversion
4. Vapor Suppression
5. Vapor Dispersion

B. With the exception of Incidental spills of petroleum products or incidental releases of natural/L.P. gas, members of the Glastonbury Fire Department shall not attempt any aggressive actions or approach a leaking container for the purpose of plugging or stopping the leak.

C. In cases where aggressive action is required in order to perform a rescue, the Incident Commander shall utilize all appropriate action (ventilation, fog streams, etc.) to reduce the concentration of the hazardous atmosphere. The Incident Commander shall provide for constant air monitoring during the operations.

D. The Incident Commander should ensure that the control method used is compatible with the chemical released:

- Water reactivity
- Appropriate foam selection
- Compatibility of diking material
- Adequate supplies

E. The Glastonbury Fire Department is not responsible for clean-up activities at the scene of a hazardous chemical release. Clean-up activities are the responsibility of the spiller and or the property owner and shall be accomplished by clean-up contractors under the guidance of the Department of Environmental and Energy Protection.

Section VIII- Decontamination

A. Decontamination procedures should be instituted anytime there is a potential for exposure to hazardous chemicals or there are victims who may have been exposed.

B. The Incident Commander shall determine the level of decontamination needed at an incident. Decontamination shall be classified as:

1. Level I Decon – Decontamination performed by members of the Glastonbury Fire Department following the guidelines in the departments SOG for Decontamination.

2. Level II Decon – Decontamination performed by a licensed Clean-up contractor or the State of Connecticut Decontamination Team.

C. No member of the Glastonbury Fire Department shall leave the scene of a chemical release without being properly decontaminated if there was a possibility that there was exposure to chemical products.

D. Contaminated victims should not be released for ambulance transport until appropriate decontamination has been performed.

E. The Incident Commander shall appoint a "Decon Officer" to supervise the set-up and the operation of the decontamination line.

Section IX - Termination

A. Following the emergency phase of a hazardous chemical incident, the Incident Commander shall ensure that the following activities are completed:

1. On-Scene Debriefing

a. All responders shall be advised of the chemicals involved and symptoms of exposure.

b. Any damaged equipment shall be documented.

2. Medical Monitoring

a. Any personnel with possible or actual chemical exposure should be evaluated by EMS.

3. Documentation

a. At any hazardous chemical incident, the Incident Commander shall gather and record all necessary information.

B. A critique will be scheduled within two weeks of any level 2 or 3 incident.

Section X - 8-Step Process

SITE MANAGEMENT
PRODUCT IDENTIFICATION
RISK ASSESSMENT
PERSONAL PROTECTIVE EQUIPMENT
INFORMATION/RESOURCE COORDINATOR
PRODUCT CONTROL
DECONTAMINATION
TERMINATION

Section XI - Appendices

I. Chemical Protective Suits
II. Haz-Mat Classification Guide

Section XII - Approval

Fire Chief Michael P Thuss Date of Approval: 1/11/16

APPENDIX I

CHEMICAL PROTECTIVE SUITS

The Incident Commander shall determine the proper PPE needed to protect the members of the Glastonbury Fire Department during incidents involving hazardous chemicals or WMD. The Incident Commander shall use the 8-step process for hazardous materials incident management as a guide to make the proper choice.

The following is a guide for donning the Chemical Protective Suits used by the Glastonbury Fire Department.

TYPE OF CHEMICAL PROTECTIVE SUIT

DuPont Tychem TK

Coveralls - Gloves - Low cut overboot - Chemical resistance tape

DONNING

Gloves - A minimum of 2 layers of gloves shall be used anytime the Chemical suits are donned. The first glove shall be medical gloves (members can wear 2 layers if desired). The second glove will be the chemical globe provided with the suit.

Chemical Coverall - The Tychem type coverall shall be donned next. The suit shall be donned and zipped up; the hood shall not be placed on until SCBA is in place.

Overboot - The overboot shall be donned on each foot. These low cut overboots provided no safety foot protection. The overboot is designed to protect the bottom portion of the suit. If a higher level of safety foot protection is needed, bunker books can be work over the suit.

SCBA - The SCBA including mask shall be donned.

Hood - The hood portion of suit shall be pulled over the SCBA mask to provide protection to the wearers head.

Taping - All seams and opening shall be sealed using the protective tape provided with the suits, including around the hood and SCBA mask. It is important to allow enough visibility around the mask to allow the wearer to see out of the mask. This also includes the portion of the suit which meets the protective gloves.

Hard Hat - A Hard hat or fire helmet may be worn to proved head protection.

When properly donned, including SCBA and tapped this suit shall provide the wearer with Level B protection.

APPENDIX II

GLASTONBURY FIRE DEPARTMENT
HAZ MAT CLASSIFICATION GUIDE

LEVEL	RESOURCES	SPILL/LEAK SEVERITY	LIFE SAFETY	CHEMICAL CONDITIONS
LEVEL 0	Single Company Response Notification to DEP	Small leak easily controlled Spilled product easily contained and removed	Low Risk Response Personnel only	Minor spill MVA Residential leaks Minor CO incidents 20 lb propane cylinder
LEVEL I	Single Company response EMS + PD response DEP response Health Dept. notification	Small leak easily contained Clean-up by others	Response personnel Civilians within immediate area of release.	Larger spills Gas mains Larger drums or tanks Large cylinders
LEVEL II	Two company response EMS +PD response DEP response Health Dept. response Activation of town plan	Special resources needed to control/contain spill or leak	Response personnel Civilians within immediate area of release Casualties Limited evacuation	Spills into waterways Portable tanks Large cylinders (500lb) EHS
LEVEL III	Multi-company response Activation of town plan	Leak may not be controlled Haz Mat team needed	Response personnel Civilians Multiple casualties Mass evacuation over large area	Poison gas/EHS Bio/WMD Tank trucks Box trucks Large above ground tanks