

LEPC #12 Hazardous Materials (HazMat) Response Plan

Local Support Function # 10: Hazardous Materials

2016

This plan was prepared by the Two Rivers-Ottawaquechee Regional Commission (TRORC) for LEPC #12 with funding support from an USDOT Hazardous Materials Emergency Preparedness (HMEP) grant provided by the Vermont State Emergency Response Commission as well as TRORC funds.

A digital copy of the basic plan without appendices can be found at www.LEPC12.org

PROMULGATION

Local Emergency Planning Committee District #12 will direct the promulgation of the district emergency plan by executing this plan under the delegated authority of the Vermont State Emergency Response Commission.

AUTHORITY

This emergency plan is authorized under the Emergency Planning and Community Right-to-Know Act (EPCRA), Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III and Title 20 §32 of the Vermont Statutes Annotated.

Chair, LEPC District #12

Date

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Quick Reference

The purpose of this plan is to be an aid to local emergency response personnel in their response on incidents involving hazardous materials (HazMat) within the LEPC #12 region.

Below are brief reminders about standard response actions.

1. The initial on-scene response shall establish incident command and notify dispatch that the scene does or may contain hazardous materials and request that all responding units be notified of this.
2. The Incident Commander (IC) should appoint a Safety Officer. Keep a defensive posture. Remember, some hazardous substances have no smell and are fatal on inhalation or contact. Standard firefighting turnout, including SCBAs, does not provide protection against many chemicals.
3. Responding agencies should be directed how to approach upwind (and upstream if a spill is to waterways), and how far out to stage.
4. The Incident Command Post (ICP) should be set up a distance from the scene that is safe for present and future conditions.
5. EMS should be notified well in advance if any victims may be contaminated and decontamination resources should be ordered early as there will a lag of hours until decontamination systems are in place. Dispatch should notify hospitals if it is suspected that patients may have self-transported.
6. As soon as possible, the hazardous substances should be safely identified using placards, manifests, information on the cargo or vehicle, or from transporters. If substances are beyond the local capacity to deal with, the Vermont HazMat Response Team (HMRT) should be called for assistance at 1-800-641-5005. They can provide phone assistance within minute 24/7.
7. An initial isolation zone should be established to lessen exposure to hazards as suggested in the Emergency Response Guidebook or other references. See attached maps for potential isolation buffer maps on fixed facilities as well as state highways and railroads.
8. Specialized resources may take hours to be on scene, so the IC should anticipate this delay, how the scene may evolve during this time, and factor this into tactics. Specialized resources should be requested in consultation with the HMRT.

Information that should be gathered or assessed about the scene includes, but is not limited to:

- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Types of material(s) released or spilled
- Quantity of materials released or spilled
- Area affected by release or spill – land only, water, storm drains, water supplies, etc.
- Danger or threat posed by the release or spill
- Number and types of injuries or fatalities (if any)
- Current and future weather conditions at the incident location
- Name of the carrier or vessel, the railcar/truck number, or other identifying information
- Whether an evacuation is needed
- What traffic control points are needed

Statutory Directive and Purpose of this Plan

The LEPC is required by both federal law (Emergency Planning and Community Right-to-Know Act (EPCRA), Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III) and state law to (Title 20, §32) have a response plan. There are nine required elements of the LEPC plan. These are shown in bold text below, along with a brief description of how this plan addresses that element:

1) Identification of facilities and transportation routes of extremely hazardous substances

The LEPC maintains a listing of all reporting Tier II facilities. Some reports include a facility map. A facility list can be found in the Appendices. Not all facilities report as required, though, and some may have significant amounts of HazMat in containers too small to require reporting (such as a hardware store.) Any road or railroad could be a transportation route. Fixed delivery routes of hazardous materials to facilities are not well known.

2) Description of emergency response procedures, on and off site

LEPC #12 does not have any operational response capacity or staff. Local jurisdictions should work to formulate their own HazMat response plan to deal with accidents, and should work with any Tier II facilities in the community to coordinate response to that facility. The Quick Reference Guide in the beginning of this plan provides some basic steps for emergency response in the case where such a plan is lacking.

3) Designation of a community coordinator and facility emergency coordinator(s) to implement the plan

The local fire chief is designated as the community coordinator in each municipality. Facilities designate their own coordinators, who should familiarize the local fire chief with their facility's layout, HazMat locations and type, and individual response plans.

4) Outline of emergency notification procedures

Any HazMat incident, either at a facility or other location, shall require notification to the local fire department, which will make additional notifications as necessary.

Warning notifications to the general public can be made through the use of the Emergency Alert System radio broadcasts or through VT-ALERT. These are both coordinated by Vermont's Division of Emergency Management and Homeland Security (DEMHS). Call the Duty Officer at 1-800-347-0488. If not available, call the Vermont HazMat Response Team directly at 1-800-641-5005. The shipper is also responsible for calling the National Response Center at 800-424-8802.

General public information about the status of an incident can be given to 2-1-1 to relieve call pressure on local agencies.

5) Description of how to determine the probable affected area and population by releases

Specialized software (CAMEO) is free and available to determine the plume of any release, however this software takes training and is not in use in most localities, nor at the LEPC. Affected areas can be modeled by the Vermont Hazardous Materials Response Team and DEMHS. Affected populations are more difficult to accurately determine as Vermont has very large Census tracts that usually cover a whole town, making some mapping products that use such tract data unwieldy. Vermont does have E911 sites, and therefore number of buildings in a plume area can be more easily calculated and warned with VT-ALERT.

6) Description of local emergency equipment and facilities and the persons responsible for them

Local emergency management for HazMat falls under the direction of the Fire Chief. Their equipment and training vary by town, with only a few towns able to actually operate within a hazardous site. A listing of towns and their equipment is provided in the Appendices.

7) Outline of evacuation plans

The decision to evacuate or shelter in place must be done on a case-by-case basis. Evacuations can themselves be a source of harm (traffic accidents, anxiety, exposure to airborne substances, loss of business, etc.) Many factors should be taken into account. Potential Isolation zones for fixed facilities have been mapped as this may aid in evacuations. A sample Evacuation Plan is included in the Appendices.

8) A training program for emergency responders (including schedules), and methods and schedules for exercising emergency response plans

The LEPC has a training and exercise plan, a copy of which is available from the LEPC.

As can be seen from the elements above, most of the data in this plan is informational, and not of the detail needed for a response to a particular event. Therefore, the purpose of this plan is to be an aid to local emergency response personnel in their response on incidents involving hazardous materials (HazMat). For that reason, it is presented in a concise and general manner, with more materials in the Appendices.

Overview of HazMat Response Authority

Vermont law (20 V.S.A. §2673) gives operational command during a HazMat incident, or the imminent threat of such an incident, to the Fire Chief or the senior fire officer on scene, unless there is a bomb involved, in which case law enforcement shall be given responsibility for the incident; if the release of materials was intentional and a crime or act of terrorism, law enforcement may also take command under other authority. A HazMat incident that affects waterways may also involve US Coast Guard authority. A Unified Command may be appropriate in these special situations and others where multiple agencies have legitimate jurisdictional authority.

HazMat Types and Locations within the LEPC

HazMat within the LEPC may be being transported for delivery into or out of the region, simply passing through the region by rail or highway, or be being stored and used on site. For materials transported in and through the region a Commodity Flow Study was performed on the region's highways in 2008, and the results of that survey have been incorporated into this plan.

Petroleum-related products are the most common placarded loads on the region's roads, with gasoline (1203), diesel/fuel oil (1993) and propane/LP (1075) being the most common loads in descending order. Placarded petroleum loads on the interstates (I-91 and I-89) were less of a proportion of the placarded loads than on state routes. Most of the petroleum shipments (by number of vehicles) in the region are not through-traffic but fuel delivery loads that by their nature will be on local roads.

Outside of petroleum, the next most common loads were identified only by hazard identification code - corrosives (8) and flammable and non-flammable gases (2). Other instances of placarded loads included hot asphalt (3257), explosives, and liquid hazardous waste (3082). Responders should be aware that many of the trucks observed no longer carry paper records, but instead have their records digitally recorded and kept on laptops or similar devices. Responders should look for laptops in the event of accidents where the driver is not conscious. It is also possible that laptops would be damaged in crashes and the manifest therefore not obtainable.

While hazardous materials could literally land in the region through an aircraft accident (there are no airports in the region), the other main transport mode is by rail. There is active passenger and freight rail in the region with daily runs. Exactly what travels through the region is not known, but certainly propane and oil tankers go through, as well as occasional compressed gas and acids. Ethanol is a new concern and requires special firefighting foam.

Responders should remain alert that many trucks and even private couriers may carry significant amounts of hazardous materials, but just aren't placarded. This is due to the fact that placards are only required when materials are over certain exempt quantities and in larger bulk containers or a single tanker. When packaged as a consumer product, hazardous materials can be classed as "ORM-D", which stands for Other Regulated Materials-Consumer Commodity. To qualify as an ORM-D, a substance must first meet the limited quantity exception.

An example of a significant hazard observed in the Commodity Flow Study was a non-placarded box truck at one checkpoint that was carrying over 1,400 pounds of "Stoddard solvent" (aka parts washer solvent) as an ORM-D in small drums. This material is a mix of petroleum derived chemicals and is highly flammable.

Besides HazMat that is being transported, there are dozens of sites in the region with reportable quantities of HazMat, making them Tier II sites. Similar to unplacarded vehicles, there are likely other sites that would qualify as Tier II but have not reported, as well as sites that have hazardous materials, but not in enough quantity or packaged in bulk containers large enough to require reporting.

Hazardous materials are common and should be anticipated at EVERY incident!

Maps and lists of sites can be found in the Appendices.

HazMat Response Capabilities

Though statutory authority for Fire Chiefs on HazMat incidents is clear, this authority does not necessarily equal expertise, equipment or training. Fire departments (like all emergency responders) can only operate to the level of their training and equipment. Undertaking operations safely in a hazardous environment requires specialized skills, knowledge and gear, much of which is very expensive. From surveys in the LEPC, it is clear that there are varying levels of capability to respond to HazMat scenes in anything other than a defensive manner. All departments should be able to at least determine a safe isolation distance and establish a perimeter.

Training levels vary from no members being Operations-level qualified to all members qualified. Some departments have spill kits and others have no materials. The lack of capabilities should not reflect poorly on departments which are virtually all volunteer. While the local fire department may or may not have expertise in the area of HazMat response, it is always available from the Vermont HazMat Response Team (HMRT). Command of an incident will remain local, but the HMRT Team Chief or Crew Chief can operate in an advisory role to the Incident Commander (which is usually the senior Fire Officer on scene) and do special tactical operations.

Other entities that may also provide additional HazMat operational support are mutual aid departments, including fire, EMS and public works; the ANR Spill Response Team; the VT National Guard Civil Support Team (CST); and the US Coast Guard if there is a threat to surface waters. DEMHS provides a 24/7 point of contact through their Duty Officer, and can coordinate the ordering of any variety of needed resources through the State Emergency Operations Center (SEOC). Town assets and contacts are listed in the Appendices.

HazMat response requires a keen awareness of safety, coordination amongst many agencies and the ability of Incident Command to look beyond the narrow view of the Operations Section. Issues may come up that require the full power of ICS, such as:

- Command staffing for public information and media relations,
- Planning staffing for weather forecasting and multiple operational periods,
- Logistics for specialized resources,
- Agency liaisons to deal with evacuation and sheltering, and
- Finance to keep track of who is paying for what.

Training and Exercise

All responders should be at least HazMat Awareness level trained, with Incident Commanders and Safety Officers trained to at least Operations level. Any responders involved in decontamination should be Operations-level qualified. Based on past surveys, additional HazMat Awareness level training should be delivered in the region, as well as Operations level training. Outside of fire departments, virtually no one on the town level is trained to Operations.

Departments should work with mutual aid agencies and the LEPC to arrange training. The LEPC maintains a training and exercise plan that is updated annually, and input is welcome. Fire departments should train with EMS and law enforcement, as they may have less

awareness of HazMat risks. Exercises, ranging from simple seminar discussions to full blown functional ones, are very useful. Start small.

Appendices