



Preparedness & Security

Leveraging Expertise through the LEPC

Updated November 2006

Summary: Cambridge, Massachusetts is the home to several educational institutions, research facilities, and biotech businesses. Many of them are actively involved in the Cambridge Local Emergency Planning Committee (LEPC) which formed in 1986 in response to the Emergency Planning and Community Right to Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act (SARA Title III). The law requires facilities to work together to plan for chemical accidents, develop inventories of hazardous substances, track toxic chemical releases and provide public access to information on hazardous substances.

This study looks at the involvement of some of the educational institutions in the Cambridge LEPC. The institutions include Harvard University, Lesley University, Cambridge College, the Massachusetts Institute of Technology, and a large public school system. Together they cover approximately 10% of the city's 6.25 square miles, and approximately 20% of the daytime population of 400,000 people.

Two of the Universities, Harvard and MIT have extensive research activities and operations that utilize many types of hazardous chemicals in both large and small quantities and have strong EH&S expertise to help with hazard material management. It has been a challenge for the Cambridge Local Emergency Planning Committee (LEPC) Coordinator to manage hazards in so many facilities, including the school system. Even with this challenge, Cambridge has moved to the forefront in prevention, mitigation, and preparedness by establishing and maintaining an extremely active committee with professional leadership of the Cambridge Fire Department. The LEPC, with the assistance from Environmental Health and Safety professionals from MIT and Harvard Universities, has been able to leverage existing emergency management expertise and resources within the city.



City of Cambridge Profile

Population:

Residential: 101,000

Daytime: 400,000

Density:

16,000 people/square mile (6th highest in the Nation)

Facts:

- Founded in 1630
- More than 6.5 miles of river waterfront
- Much housing stock pre-1945
- Many historical buildings & sites
- High density of woodframe construction
- Heavy traffic/congested parking
- Over 100 hi-rise buildings
- Three hospitals
- One penal institution
- Subway traverses length of city
- 36 Facilities in the City complete Tier II reports
- Home to one, of only two, hazmat response teams in the state.

US EPA New England Best Management Practices Catalog for Colleges and Universities

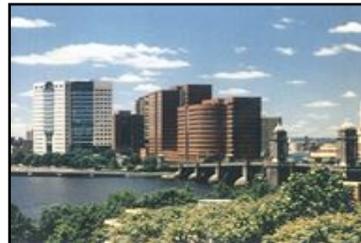
For more information about the catalog and other case studies visit

<http://www.epa.gov/ne/assistance/univ/bmpcatalog.html>

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Project Goals of the LEPC

- Support the exchange of information and a “mentoring” program.
- Promote the incident command system.
- Make all necessary arrangements in advance of potential incidents.
- Bring together affected parties prior to an incident occurring.
- Think of all possible situations that may occur during an incident, before it happens.
- Obtain and maintain necessary information on hazardous materials from all facilities in the community.
- Coordinate with neighboring cities and towns.
- Ensure firefighters have all necessary information on hazardous chemicals so they are aware of what exists within a community.
- Balance the Right-to-Know component of EPCRA in light of security and safety.



Description of Issue/Problem

LEPC Coordinators play an important role in communities. Support (financial, manpower, and community adherence to the regulations) can vary and without strong leadership the LEPC will not be able to fulfill its duties. Cambridge has strong leadership and tremendous support from many companies in the regulated community; however, with the threat of terrorism after 9/11, and the movement towards an all-hazards approach, new and updated means of fulfilling the role as LEPC Coordinator is needed. Finding the way to this modern role has posed newer challenges that must be fulfilled. Easily accessible guidelines, standards, training, and examples are few.

Cambridge
Public School
District (CPSD)
Elementary
Schools: 12
High School: 1
Students: 6,750
Teachers: 700
Administrators: 70
Support Staff: 500



Cambridge Public Schools - A Success Story
When the LEPC Coordinator, Capt. Gerard Mahoney, became aware that the CPSD needed assistance with chemical management in the high school, he requested the expertise of MIT and Harvard Universities. Both Universities stepped up to the plate by assigning staff to assist. Their goal was to help the CPSD get a better handle on requirements for chemical use and storage in labs throughout the school system. The Universities assisted CPSD in developing programs and procedures and identifying needs. They provided lab safety training to science teachers and, very importantly, the Universities established positive roles in the community by providing needed support. In exchange, CPSD committed people to maintain the program.

Steps Taken

The LEPC Coordinator with the Cambridge Fire Department, the many businesses in Cambridge, and the Universities have taken many steps towards developing and maintaining active participation and successful programs. Some of these programs are outlined in this best management practice.

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Participants (LEPC Members)

Mayor of Cambridge	Verizon
Cambridge Fire Department	Cambridge Health Alliance
City Dept. of Public Health	WR Grace Co.
Police	Triumvirate Environmental
Public Works	Draper Laboratory
Idenix Pharmaceuticals	Analog Devices Inc
Housing Authority	Millenium Pharmaceuticals
Cambridge Public Schools	Bay State Pool
Harvard University	Genzyme Corp
(EH&S, Police, Operations	Amgen Corp
Center)	The Dodge Co.
MIT (EH&S, Police)	Salvation Army
Lesley University	Mirant Energy
Mt. Auburn Hospital	TKT

Performance and Benefits

The LEPC Coordinator, in conjunction with the facilities throughout Cambridge, work together to ensure the safe storage and use of hazardous chemicals, as well as to prepare for an incident in the city.

- The LEPC has been active since the mid 1980's.
- Quarterly LEPC meetings have grown to 30-40 regular attendees.
- Working sub-committees including biotech, site assessment, hospital, volunteer and resources, Emergency Response Plan update, and University. Each subcommittee sets goals and responsibilities.

The Site Assessment Sub-Committee visits various facilities and developed a questionnaire for use during on-site evaluations. The visits characterize hazards, evaluate emergency preparedness, and ensure that facilities provide needed information to the CFD. A brief assessment of vulnerabilities if a significant event were to occur is also performed. Reports include the following information: inspection date; facility name and address; emergency coordinator; nature of the business; hazardous substances used and amount stored; facility evacuation distance; transportation routes; vulnerable facilities/areas within close proximity; type of incidents possible at the facility; response capabilities; security; animal use; observations and recommendations; available resources for the community.

- All Tier II facilities and LEPC members have provided the CFD with a facility contact available 24/7.
- LEPC members share information to assist each other. For instance, the University sub-committee share call lists, and exchange equipment and training programs.
- Created several 'Memoranda of Understanding' with stores and restaurants to provide food/drink to responders in a large-scale incident.
- Held three major exercises in 2003, a tabletop, a drill on -site at a train station, and one involving a major chemical manufacturer. The on-site drill was filmed by a professional filming company and the tape is now being used as a training video by the MBTA in Boston.
- Held a full-scale radiation (dirty bomb) drill in 2004
- Participated in Operation Atlas conducted at Boston's Logan Airport involving Boston and Cambridge in 2005.

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- Conducted several tabletop and one on-site drill for avian flu pandemic mass vaccine distribution with MIT and Harvard in 2006.
- Cambridge has established a mutual aid agreement with the City of Boston for HAZMAT response.
- All Fire department personnel are trained to OSHA's Hazwoper Operational Level and approximately 75 are trained to the Technician Level I level.

Those facilities that *do not* reach Tier II threshold levels for reporting but do store hazardous chemicals must submit:

- Chemical Hygiene Plan (if applicable)
 - Emergency Action Plan
 - Medical Facility Contract
- The documents are reviewed by CFD and a walk through of the facility is completed. If necessary, annual permits to store flammables/ combustible will be assigned.

- Fire fighters are now more aware of what hazardous materials are present in the community.
- MIT and Harvard EHS personnel help train CFD personnel on unique hazards of research laboratories including radiation, lasers, biological, and chemical agents.
- A file on each facility that requires annual permitting/licensing/reporting for hazardous chemicals is kept on hand at the CFD.
- Involved the districts by having the fire companies go on-site and hand deliver annual permits/licenses.

...and the Universities achieved

- Excellent working relationships between the CFD and the University emergency managers.
- Insight into the abilities, resources, and limitations of local first responders and what is important to them.
- Good relations with other industries and facilities in the City of Cambridge.
- Established themselves as a "good neighbor" with the local community
- In-house "training" for EH&S staff in working with the local community on emergency management issues in a non-critical environment.
- Greater awareness for the CFD of the University community, its operations, and physical layout.

Lessons Learned

The LEPC Coordinator can tap the expertise of local businesses to assist in hazard identification, training, and regulatory expertise for city schools & small businesses.

Next Steps for the LEPC

1. Develop a mission statement for the LEPC.
2. Update the Emergency Response Plan for the City of Cambridge.
3. Identify key players in the community for a Level II or III incident and assign tasks.
4. Increase awareness of the Incident Command System.

For Further Information

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