



REGION 6 Preparedness, Response, and Prevention Update

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EPA Region 6 LEPC Website: www.epa.gov/region6/lepc

Ten Houston Area LEPCs, P.R. Firm Develop National Communication Strategy

A freshly-painted huge (65-foot by 25-foot) red, white and blue sign gracing a massive storage tank at Lyondell-CITGO's Houston refinery marks the first large-scale application of a new graphic, already placed upon millions of grocery bags, aimed at helping the public understand what an LEPC is, and does.

The tank is about a hundred feet from the northern edge of Highway 225, making the sign clearly visible to the many thousands of motorists traversing the Houston Ship Channel industrial area daily.

The display is the result of volunteer efforts on the part of several entities.

The copyrighted graphic-consisting of a quiet neighborhood scene, large "LEPC" and the slogan "...Safety in Knowledge"--was developed by Mel Anderson Communications Inc., Houston-based public relations/graphic design firm, with guidance from the Community Education Task Force representing 10 LEPCs in the Houston Ship Channel/Galveston Bay area.

Staff members of the firm serve on the task force--which is spearheaded by the Pasadena and Deer Park LEPCs.

And the tank display space is donated by Lyondell-CITGO as a public service.

The graphic was designed to help LEPCs with their community outreach programs.

It is being used by LEPCs on letterheads and other materials in Texas and elsewhere, and has already been painted--along with chemical emergency instructions--on several million grocery bags used by major food retailers.

The graphic, which has been accepted by Regional and National officials of the EPA, is also being made available to LEPCs nationally in the form of ads, flyers, bumper stickers, and other promotional materials.

For more information, contact Mel Anderson Communications, 6901 Corporate Drive, Suite 201, Houston, Texas, 77036; (713) 981-4390.

Comprehensive Emergency Notification -- the Toolbox Approach

In an emergency, a prompt and full information flow is essential to getting cooperation from the public.

The emergency notification systems that make this possible can be seen as different "tools" in a "toolbox", each having a specific role to play.

By examining what tasks the complete notification system must perform, emergency planners can select the "tools" that will do each job most effectively.

We can identify some criteria for a notification system by asking what a "perfect" emergency notification system would do. If a perfect system existed, it would be one which:

- Reaches people instantly;
- Tells people what the threat is, and what to do in response;
- Reaches all people affected by the emergency;
- Does not disturb people who are not affected;
- Gives updates as the situation changes;
- Is equally effective for people in all situations;
- Is flexible enough to send different messages to different areas;
- Conveys a sense that the authorities care about citizens' welfare and are responding to the situation.

None of the systems in the existing emergency notification "toolbox" meet all these criteria.

By understanding their strengths and weaknesses and combining tools, emergency planners can select the best mix for a given situation. Let's look at the most common systems.

Fixed Siren/Alarm System

Strengths:

- Reaches people almost instantly;
- Reaches most people in the target area-other than those who are hearing impaired;
- Under direct control of emergency response personnel.

Weaknesses:

- Installation and maintenance are expensive;
- Subject to equipment failures and false alarms;
- It is difficult to hear outdoor sirens inside buildings;
- The sound itself says nothing about what the threat is or what to do about it;
- May disturb people who are not affected by the problem;
- The message can't be updated.

Essentially, fixed sirens and alarms are useful only if people have confidence in the system and have been well-briefed ahead of time on what the siren sound means, and what to do.

Without this initial preparedness, the sound of the alarm means nothing.

In fact, most Americans would probably assume a siren sounding was either a test or a malfunction. There is only a slight chance that they would do anything in response to an alarm.

Mobile Loudspeakers

Strengths:

- Message can be delivered to many people at once;
- Generally does not disturb those who are not at risk;
- A high degree of credibility-particularly if the message comes from an official vehicle;

- Generally able to reach people indoors and at night if loud enough;
- Can deliver different messages to different areas;
- Under direct control of emergency responders.

Weaknesses:

- Large incidents require many systems;
- Subject to equipment failure and logistical breakdown;
- Message may be difficult to decipher;
- Unable to reach people who have a hearing problem;
- Difficult to reach wide areas in short periods;
- Cannot provide much information content, such as exactly what the danger is and what to do about it;
- Can be slow to deploy.

Mobile loudspeakers are good for reaching small geographic areas and asking people to tune in to radio or television for further information. They send a strong message of urgency and provide reassurance that the authorities are responding to the situation.

Their problem is that after the initial warning is sent, people will still have more questions than answers.

If more details are not forthcoming, they may become disturbed. To build good relations, with people from whom emergency responders will need cooperation, planners should develop ways to keep people up-to-date during an emergency.

Personal Notification (e.g. police officers going to door-to-door)

Strengths:

- High degree of credibility;
- Indicates the seriousness of the situation;
- Can provide good information and answer questions about the threat and what people should do;

- Can be targeted to the geographic areas affected without disturbing those not affected;
- Reaches everyone, day or night, even those with hearing problems;
- Reassures people that the authorities care and are taking action.

Weaknesses:

- Takes considerable time to deliver the message;
- Occupies personnel who may be critically needed to deal with the emergency itself;
- Risks exposure of response personnel;
- Cannot cover wide areas due to lack of staff to do the job.

Door-to-door notification is good for highly localized problems, where a few emergency personnel can reach all affected people quickly.

It works well where there is a complicated message and a considerable sacrifice is being asked of the public.

Like all means of emergency notification, door knocking needs planning to make sure personnel are used as effectively as possible and that nobody is missed.

Radio

Strengths:

- Almost instant communication;
- Can provide detailed information and update the message as necessary;
- Near-universal access since nearly every house and automobile has a radio;
- Emergency access is generally free of charge;
- Portable and automobile radios operate during power outages.

Weaknesses:

- Limited night-time coverage (while sleeping);
- Users have to be tuned in to receive warning;
- Radio stations may give inconsistent priorities to warning broadcasts;
- Areas and people not being affected receive the message;
- Not under direct control of emergency responders.

Radio works well when primary alert is given by other means such as sirens, alarms, or mobile loudspeakers and people know to respond by tuning in. Radio is an intensely "personal" medium.

Any message coming from such a source has high credibility and can motivate people to act.

However, with several radio stations in each major market, getting your emergency message to all of them and keeping them informed of developments can take up valuable staff time.

Getting good emergency notification cooperation from radio stations requires pre-planning.

Responders should bring station managers into the planning loop early to get their commitment and should stay in touch so the station's cooperation will be there when it is needed.

Television

Strengths:

- A credible, respected medium;
- Available in most households;
- Can give detailed information, and keep people supplied with updates;
- Almost instant communication, subject to the station's programming needs;
- Can show maps, diagrams, and live images.

Weaknesses:

- Television is good at reaching large numbers of people only at certain times of the day.

It has little usefulness late at night and during normal commuting and working hours; Station managers are usually reluctant to interrupt scheduled programming for anything but major emergencies;

- Message may go to people not affected;
- Has limited reach outside the home;
- Is not available if the power is out;
- If sent out only via cable, nonsubscribers will not be reached;
- Not under direct control of emergency responders.

Television is good for providing detailed information after people have first been alerted by another means and asked to tune in.

One of its greatest strengths is that for many people, if it's on TV, it's true. That credibility makes people pay attention to emergency messages and follow instructions.

Emergency planners should develop good relations with television station managers, and get their commitment to cooperate before an emergency happens.

Automated Phone Dialing Systems

These are computer-based systems that can record an emergency announcement and then use pre-programmed phone numbers to dial a large number of phones and deliver the message to anyone who answers.

Depending on the capacity of the system and the number of lines available, several hundred residents can be reached within an hour.

Strengths:

- Rapid message delivery;
- Detailed message can be given, including the nature of the threat and what to do about it;
- Can send different messages to different areas if needed;

- Due to near-universal coverage of telephones, can notify most people being affected;
- Advanced systems can narrowly target calls so that unaffected people are not disturbed;
- Can be used to provide updates as the situation develops;
- Can deliver a "staged" notification to reach people in most danger first.

Weaknesses:

- Cannot reach people outdoors, unless they carry mobile phones;
- Cannot reach people without telephones;
- Systems generally "count" an answering machine receiving the call as a completed call;
- Less advanced systems cannot reach people who are hearing impaired.

Automated dialing systems themselves come in two major categories; stand-alone systems and centrally-operated systems in which each call originates from the operating company's premises.

Here are the pros and cons of each:

Stand-alone system:

- Emergency organization has complete control over the system's use;
- One major capital expenditure is needed, plus the cost of operation and maintenance;
- System must be replaced when it is obsolete;
- Requires emergency power backup if it is to function in a power outage;
- Requires training of personnel, and the maintenance of that training;
- At least one trained person must be on-site at all times;
- Limited number of lines available means messages must be short, and total time taken to complete all calls may be long;
- Sophisticated targeting of message may not be available.

Centrally-operated system:

- Requires regular service payments, plus payments as used;
- Requires coordination between local responders and service responders;
- Large number of lines available means calls can provide a detailed message, yet to be completed in a short time;
- Being located out of the disaster area, calls can usually be completed during a power outage;
- System hardware and software are updated centrally, no need to update at customer site;
- Operation by client requires no extensive training;
- System can provide detailed report after each call, so emergency planners will know who has yet to be reached with the message.

The credibility of the warning given through an automated dialing system is increased by a well-developed public information program when the system is installed, and by frequent reminders.

The information program can also persuade residents with unlisted telephone numbers to provide them to emergency authorities so that they can be included in the database.

Emergency planners should use their knowledge of the strengths and weaknesses of each notification to build a system that comes close to the "ideal system" for their community.

Friend Remembered

We have all lost a close friend who had dedicated his career to helping others in the emergency management field.

Tom Joslin, a teacher, advisor, and program coordinator at the University of North Texas, died after a short illness.

Before North Texas, Tom had worked many years at FEMA in Denton.

Tom was in charge of the Emergency Administration Program, which has graduated over 200 students.

Tom personally assisted many students in finding their first jobs, and beginning their careers, including both editors of this Update.

Many of these graduates are now members or chairs of LEPCs in the Region.

Tom was instrumental in developing the EPCRA training modules, which have benefitted all of us.

We will miss you, Tom!!

How Is Your Planning?

As required by EPCRA, all LEPCs were to develop a hazardous materials emergency response plan for their local emergency planning district.

These plans were required to be completed and submitted to the SERCs by October 17, 1988.

With 5 years passing since many of the plans were written, it is a good time to determine if your plan needs to be reviewed and updated.

Remember: the law stated that the plan should be reviewed on an annual basis.

Even if your LEPC did not complete its plan by this 1988 date, it is still a good idea to determine if your plan is current.

So if your plan is collecting dust on a shelf, the following plan check-up might be in order to determine whether your plan needs reviewing and updating:

- Was your plan submitted to the SERC?
- Did it receive comments by the SERC, and if so, were they included in an update of the plan?
- Does your plan meet the nine comprehensive planning elements found in the publication Hazardous Materials Emergency Planning Guide (NRT-1)?
- Have any new facilities moved into your planning district since your plan was written?
- Have transportation patterns changed since the plan was written?
- Have training programs changed for local emergency first responders?
- Has emergency resource lists of equipment been updated?
- Has the plan been reviewed to the publication Criteria for Review of Hazardous Materials Emergency Plans (NRT-1A)?
- Have adjoining local emergency planning districts been considered in your plan?

This information might include nearby facilities and transportation routes not within your local planning district.

- Has the plan been exercised?
- Has the plan been reviewed in the last year by the LEPC?

If you answered negatively to any of the above, it might mean that a formalized plan review and updating is in order.

If you need assistance in getting started, contact your State Office of Emergency Preparedness for plan review assistance.

Purpose of Exercises

When planning an emergency exercise, two primary results are expected.

The first is individual training.

Participants practice their roles and improve their skills during simulated emergency situations, drills, table-top and functional exercises.

An exercise is a valuable learning experience for individuals, as well as the organization(s) in which they serve.

The second, which is an equally, if not more important result, is the improvement of the emergency management system.

The fundamental purpose of exercises is to improve operational readiness, a type of "reality check" for response agencies. In support of this goal, exercises can:

- Reveal planning weaknesses
- Identify communication needs
- Reveal resource gaps
- Improve coordination
- Comply with training requirements
- Clarify roles and responsibilities
- Improve individual performance
- Serve as a train-the-trainer to other jurisdictions
- Test plans and systems in "live" situations
- Motivate public officials to support emergency programs
- Increase general awareness of proficiency and needs
- Improve Federal-State-local emergency management relationships

The ultimate goal of a plan review and exercise program should be to improve the emergency operations plan and response capabilities.

This will ensure that all essential elements are adequately staffed and executed. In the event of an accident, the jurisdiction(s) can now effectively mitigate the emergency and protect the public.

The emergency management system, including the plan, should adequately reflect what really happens during an emergency situation.

By exercising, you are able to simulate and test this system for strengths and weaknesses.

Role of Technical Information and Agency Behavior in Shaping Public Perceptions of Risk

Can public perceptions of risk be brought in line with "expert" assessments of risk if the public is provided with more detailed information on toxicology, exposure routes, and possible health effects of environmental toxins?

A team of researchers from Rutgers University and the New Jersey Department of Environmental Protection and Energy tested what they saw as the common assumption that providing the public with more technical information could solve the problem of public misperception of risks.

They conducted an elaborate experiment in which they asked citizens to read fictitious newspaper accounts of a chemical accident that could have contaminated their community's water supply.

Different articles reported the same basic facts and assessments of the risk posed by the release, but differed in the amount of technical information they offered and in their descriptions of local agencies, response to the incident.

In both the pretest and the actual experiment, the amount of technical detail in the articles had no significant effect on citizens' perceptions of risk. In fact, citizens did not even recognize the more detailed versions of the articles as having more technical information.

The researchers concluded that, within the range of scientific detail that officials might reasonably expect a newspaper to print, the amount of technical information provided to the public will have no influence on risk perception.

One factor which did influence risk perceptions was the reported response of public agencies to the accident. The less appropriate citizens thought the agencies, response had been, the greater their estimate of the risk.

The authors conclude that N ... how an agency behaves (or at least is reported to behave) is at least as critical for public perceptions of risk and agency performance as what the agency says or is reported to say."

While public agencies must provide full technical information on risk estimates, they can probably more effectively reduce public fears about low-probability risks by responding quickly, providing information on how the incident is being handled as soon as possible, and attempting to identify and address public concerns.

Industry Perspective on Credible Risk Communication

John Holtzman, Vice President of Communications, the Chemical Manufacturers Association

The following article was written for industry personnel on risk communication, but much of it is applicable to LEPC and SERC officials also.

We all have a stake in risk communication and must present it in a credible format.

EPA is in the process of developing a risk communication fact sheet for LEPCs which should be ready by mid-July.

Since the Chemical Manufacturers Association adopted its CAER program in 1985, we have received a great deal of input about how the public reacts to industry's communications about health, safety, and environmental performance issues.

The following are a few of the points that stand out as useful for industry and other risk communicators to keep in mind when talking with the public.

- Industry should never over-claim, either for accomplishments or for motivation.

We are not environmentalists - and can't claim to be.

We may have made progress, but there is a lot that remains to be done.

- If we insist on talking about economics first, realize that the public may interpret it as our warning that we're big, we're important, we provide jobs, we're part of the power structure and that we're doing the public a favor by talking to them.
- Words are more than words.

They are signals and clues to fundamental, and sometimes hidden, meaning.

That's why scientists and lawyers who search for words that have specific and precise meaning, and activists and the public who apply connotative meaning have trouble communicating.

- Stick means stick, suspect and questionable.

Using stick paper or fancy designs, and making fancy presentations and fancy claims can colt into question your message.

- Community groups warn that anyone claiming to be humble probably is not, but at the end of the day, those groups want to feel they have heard from a humble person.

- Actions, not words, help to establish credibility.

Talking about problems, or failures, and documenting how you fixed them, helps establish credibility.

Avoiding them suggests unwillingness to accept responsibility or acknowledge shortcomings.

- Talking about openness doesn't impress the public.

What does capture their interest is the fact that facilities have community advisory panels.

Talking about commitment doesn't impress the public.

Showing them the manuals, videotapes, and reporting forms to implement a code does.

It shows that there is just too much substance to an effort to be worth faking.

- The public wants to know that there are trustworthy people, moved by more than economic self interest, who are in control.

If we claim morality and spirituality, the public will doubt us - but citizens know those qualities when they actually see them.

- We continue to be told that an outside observer can help our credibility, particularly an observer who has nothing to gain and who may even be a critic.

- Address what people are concerned about ... but, in addition, address what they should be concerned about.

The public knows that TRI data are good as far as they go, but it is not really useful to them.

The real issues that concern the public are security and impact, or potential threat to their health and safety. We need to find a way to address those issues.

- One company, trying to help the public understand the issues, gives money to their community advisory panels to hire their own consultants to explain health, safety, and environmental data.

- Another community panel formed a joint group of company representatives, environmentalists, citizens, and academics to collectively develop a list of the ten priority chemicals for emissions reductions and to develop a method to track and report reductions.
- Public interest groups feel that claims of protection of proprietary information are founded in such a history of self-interest and obfuscation that they distrust those claims.
- We shouldn't guess or intuit what community concerns are.

We should take active steps to find out what those concerns are - conducting surveys, establishing community advisory panels, and participating in town hall meetings, are just a few examples of what we can do to try to get the pulse of our communities.

- Tangible evidence of improvement is important.

The public knows we are not perfect, and they need to know our shortcomings and will take steps to improve.

Workers and Hazardous Substances

Hazardous waste operations and emergency response to incidents involving hazardous substances are inherently "hazardous".

Minimizing the danger and eliminating the hazard while maximizing worker safety is the goal of these operations.

OSHA has established regulations to ensure that workers are protected and provided with safe work places.

The OSHA regulation pertaining to hazardous waste operations and emergency response (29 CFR 1910.120 aka HAZWOPER) and many other OSHA regulations stipulate training requirements designed to create a work force of informed and qualified employees who will act responsibly and competently in potentially hazardous work situations.

Training, however, is not the only method employers use to maximize worker protection.

The HAZWOPER regulation requires employers to institute a reasonable combination of engineering controls, safe work practices or procedures, and personal protective equipment to reduce and maintain employee exposure to hazardous substances within acceptable levels.

Engineering controls utilized at hazardous waste sites include such items as pressurized cabs or control booths on equipment that reduce or eliminates the operator's exposure to airborne contaminants, and/or the use of remotely operated material handling equipment designed to separate the worker from the hazardous material being handled.

Work practices which may be feasible include reducing potential employee exposure to hazardous substances by isolating non-essential employees from container-opening operations, wetting down dusty materials before handling them, and locating employees upwind of possible hazards.

Selection of personal protective equipment (PPE) is based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task specific conditions and duration, and the hazards and potential hazards identified at the site.

The use of PPE requires direct participation on the part of the employee to ensure individual safety.

He or she must maintain an awareness of the protection in addition to accomplishing

the assigned task.

The key to working safely with hazardous substances, whether the operation be a cleanup, a routine materials handling at a Treatment, Storage, or Disposal Facility (TSD), or an emergency response, is to have in place an effective combination of engineering controls, work practices, and personal protective equipment with which employees are familiar and trained to use properly.

Training is crucial. HAZWOPER places a strong emphasis on employee training.

OSHA requires that all employees potentially exposed to hazardous substances, health hazards or safety hazards, and their supervisors and management responsible for the operation(s), must receive training in compliance with HAZWOPER before they are permitted to engage in hazardous waste operations that could expose them to health hazards.

These employees must be trained to a level required by their job function and responsibility. The regulation allows for 40-hour and 24-hour versions of initial training, depending on the type and amount of site work the employee will be performing.

Supervisors and managers directly responsible for, or who supervise workers performing hazardous waste operations, require additional training.

All workers covered will have annual refresher training of at least eight hours.

Employees who will get involved in emergency response activities on site will receive additional training in how to respond to expected emergencies.

HAZWOPER training topics include:

- responsibilities of safety personnel
- site hazards
- use and limitations of PPE
- safe work practices
- safe use of engineering controls and equipment on site
- medical surveillance requirements
- recognition of symptoms and signs of possible exposure
- decontamination procedures

- emergency response plan
- confined space entry procedures
- spill containment

Separate training provisions are designated for Hazardous Materials Emergency Responders.

These include Awareness, Operations and Technician levels, depending on how deeply involved the employee will become when engaged in emergency response activities. Initial training requirements for the different levels vary in length and coverage.

Hands-on training is the best method to establish a working knowledge of the information presented.

When students are given an opportunity to use protective equipment, monitoring devices, and mitigation tools, they gain an understanding of the complexity associated with worker safety during hazardous waste operations and emergency responses.

Staged emergency scenarios reinforce a level of awareness directed toward the importance of preplanning, preparation, and teamwork.

These workers not only must know how to perform the operations but also how to work within the constraints of the protective equipment and procedures designed to minimize risk and maximize safety.

Workers who are knowledgeable in the purpose and function of engineering controls, who have developed good work habits through appropriate training in safe work practices, and who understand the use and limitations of PPE are able to make a positive contribution to the project at hand.

A company that promotes an interest in worker safety will see that the employees will in turn show a greater interest in the company.

Everyone benefits.

Outreach Assistance

The goals of EPCRA will have a much better chance of achievement if the people in each community are informed and involved in the process.

The following outline may help the members of the LEPC generate a public information plan that could expand the number of people working with them in their efforts.

REACH OUT to your community and nurture its right to know

Articulate Your Message

- Protect public health
- Protect the environment
- Increase public awareness of potential chemical releases

Identify Your Audiences

- Each of those represented on the LEPC, plus
- Ethnic communities
- Service clubs (Rotary, Kiwanis, Elks, etc)
- Schools, cottages, universities

Do Your Homework. Then Learn the System

- Leaders and their "styles"
- Organization and characteristics and philosophies
- Press deadlines

Develop and Maintain & Mailing List

- Newspapers and newsletters: dailies, weeklies, house organs (industry), schools, suburban shoppers, ethnic press
- Radio and television stations: commercial, cable, all-news

Create Written Documents

- Press releases (important ideas only)
- Feature articles
- Guest editorials/columns
- Letters to the Editors
- Flyers
- Brochures
- Newsletter

... and Audio/visuals

- Spot announcements
- Video commercials
- Slide show
- Video tour of community

Schedule Events

- Visit to Editorial Boards of Newspapers
- Speakers bureau/Service clubs, schools, etc.
- Schedule plant visits
- Exercise plant visits
- Exercise of plan
- Talk shows/radio and TV
- Public meetings o living room assemblages
- Joint meetings with adjacent LEPCs

Establish and Publicize Depository

- Laws and regulations
- EPA publications
- Reports from industry
- Features from magazines and newspapers
- Films and videos for check-out
- District Contingency Plan
- Contingency Plans of contiguous facilities
- Contingency Plans (when required) of community facilities

Support Training for First Responders to Spills

- Fire fighters - professional and volunteer
- Police
- State troopers
- Medical. community
- Emergency managers
- Facility HAZMAT teams and 911 operators

Identify a Hotline for 2-way Idea Exchange and watch the awareness intensify !!!

Report to Congress on Hydrogen Fluoride

Just when you thought it was safe to say you've heard everything about the Clean Air Act Amendments, along comes another paragraph !

Under Title III, section 112(n)(6) requires EPA to complete a study of the potential hazards of hydrogen fluoride or hydrofluoric acid and its uses in industrial and commercial applications to public health and the environment considering a wide range of events including worst case accidental releases.

EPA shall make recommendations to the Congress for the reduction of such hazards, if appropriate. The study is due to Congress by November, 1992.

HF is a corrosive and toxic liquid that readily volatilizes at room temperature to form dense vapors that, under certain conditions, can hug the ground and travel downwind for long distances. Most companies handling HF recognize that it is particularly nasty. A couple of recent events, however, have raised Congressional interest in this issue.

In 1985, AMOCO Oil Company performed spill tests at the Nevada Flats Liquefied Fuels Spill Test Facility to better understand how large HF releases behave. Analysts expected most of the HF to condense and form a liquid pool on the ground. Much to their surprise, the HF formed a dense, ground-hugging aerosol that carried five miles downwind!

On October 30, 1987, a heat exchanger was dropped by a crane on an HF storage vessel, shearing off two vapor pipelines to the vessel. About 40,000 pounds of HF vapor drifted through Texas City, injuring almost 1,000 and requiring the evacuation of 5,000 residents.

HF is used to make fluorinated chemicals of all kinds (refrigerants, Teflon), to catalyze the production of high-octane gasolines, and to produce pharmaceuticals, steel, electronic, and glass. Many other countries besides the U.S. are interested in HF safety and risk assessment.

Currently, EPA is beginning to draft introductory sections to the HF study report based on a great deal of information collected over the past months on the manufacture, processing, and use of HF.

Several sites, including HF manufacturers, refineries, and manufacturers of refrigerants and semiconductors, were visited to learn first-hand about HF hazards and how HF is handled by industry.

Success Stories in Implementing Title III

- Pierce County, located just south of Seattle, Washington in the southern part of the Puget Sound, includes the Port of Tacoma.

This port, which accounts for 80 percent of the Title III reporting facilities within the county-wide LEPC, is one of the busiest ports on the West Coast.

Pierce County also has one of the most active LEPCs on the West Coast.

The Pierce County LEPC undertook an innovative approach to help fund its preparedness and planning activities.

The LEPC requested donations from all reporting facilities for the purchase of a computer system to help in managing the planning process and Title III community right-to-know information.

The LEPC sent a registered letter to each reporting facility requesting a donation of \$250 towards the purchase of the Emergency Information System/Chemical (EIS/C) software.

Follow up letters were hand-delivered by police officers to all facilities that did not provide donations after the first mailing.

At present, over \$7,000 has been raised through this effort, enough to purchase the EIS/C software and to cover LEPC costs for postage, office supplies, printing, and some training.

The Pierce County LEPC believes that the planning process fostered under Title III and the pre-existing CAER program has helped reduce chemical hazards in the community.

As a result of identification of chemical hazards and planning by the LEPC, many facilities have taken measures to prevent the possibility of serious accidents, as well as to mitigate the consequences of such accidents.

The knowledge gained in the county's planning efforts has led many facilities to increase or improve their employee training programs focusing on safer handling procedures.

Innovative funding approaches, such as the one described above, can only serve to further the goals of EPCRA as well as the LEPCs preparedness and planning activities.

- El Paso County is located along the Front Range of the Rocky Mountains, south of Denver.

The county's terrain varies from semi-arid to alpine mountain forests.

The city of Colorado Springs, which is the largest urban area in the county, has formed its own LEPC.

The county LEPC handles EPCRA planning within the other parts of the county and coordinates closely with the Colorado Springs LEPC.

The LEPC believes reaching its community's youth can be an effective way to inform parents and the children, themselves, of the presence of chemical hazards and how to be prepared as citizens if an accident were to occur.

To reach the primary school level with information on chemical hazards and EPCRA planning efforts, the LEPC developed library displays for the school library system.

All school faculties were provided with a package of information on EPCRA and surveyed to determine if any classes or extracurricular groups would be interested in receiving a "Chemicals in Your community" presentation, which is based on the EPA informational brochure on EPCRA.

The LEPC is expanding this presentation beyond EPCRA to capture the interest of students in grades 1-6.

Fliers, contest materials, and award programs are being designed to address topics of environmental safety and pollution and to attract the interest of these younger students.

New Oil Act Means Better Response

Have you ever asked yourself if anything's being done about the number of major oil spills in U.S. waters?

Good news!

The President and Congress have responded with the Oil Pollution Act of 1990.

The bill swept through both houses unanimously, and President Bush signed it into law on August 18, 1990.

The law mainly addresses liability and compensation issues, but it also contains other important provisions to help prevent major spills, and to prepare for the right response when a spill does occur.

One way that the new law helps response actions is by expanding the Federal government's authority under the Clean Water Act (CWA) for removing-oil and hazardous substances.

The Federal government must now direct oil spill removal actions whenever a discharge poses a substantial threat to the public health and welfare.

This new authority should improve oil spill clean-up monitoring and management.

If the people responsible for the spill don't pay for removal costs and damages, the Oil Spill Liability Trust Fund will cover these costs.

Money from the existing CWA 311(K) fund and other oil spill compensation and liability funds have been transferred into the new trust fund.

What about owner/operator responsibilities?

The law requires an owner or operator of a vessel or facility to develop response plans for "worst case" discharges.

The plan must be submitted to the Federal government if the worst-case spill also can cause "significant and substantial harm".

It is the Federal government's job to review and approve the plan.

EPA, working closely with the Coast Guard, will write guidance materials to help facilities prepare their response plans. EPA will also review completed facility response plans and develop a data base to keep track of them.

Another step for the Federal government will be designation of areas for which Area Contingency Plans must be prepared.

An Area Contingency Plan will map out a response to a worst-case spill that may occur near a designated area. An Area Committee made up of Federal, State, and local officials will prepare these Area Contingency Plans.

Finally, the Federal government will review each plan and either approve it or require changes to it.

Only 38 of the approximately 16,000 oil spills in the U.S. during 1989 were large spills (more than 100,000 gallons) but these major incidents resulted in widespread environmental damage, heavy clean-up costs, and tremendous losses to the environment and the economy.

The clean-up cost figure does not include possible civil and criminal penalties, private damage claims that may result from pending lawsuits, or the cost of restoration (that can often exceed oil clean-up and removal costs).

The Federal government wants to prevent future spills, respond more efficiently in the event that they do occur, and address liability and compensation for the costs involved in the response.

Let's hope this Act will help us meet these goals.

Worker Protection Standards for First Responders

On March 6, 1990, the Occupational Health and Safety Administration (OSHA) Regulation, 29 CFR 1910.120, and the EPA Regulation, 40 CFR 311, went into effect to protect workers who are engaged in hazardous waste operations and in emergency response functions.

These worker protection standards address five categories of activities: clean-ups at uncontrolled hazardous waste sites, corrective actions at controlled sites (RCRA), voluntary cleanups at uncontrolled sites, normal hazardous waste operations at RCRA treatment storage, and disposal activities, and emergency response without regard to location.

Maintenance personnel who clean up small spills are not usually considered emergency responders, but only specialists who must be called within the facility or from the community at large.

OSHA regulations generally are targeted at private sector employees or at Federal government employees (under Executive Order 12196).

OSHA may also delegate its authority to a State to implement the health and worker program.

This has been provided only to New Mexico. The other four states in Region 6 are without an OSHA approved State Plan. In the latter cases, supervision for worker protection standards rests with EPA for all public employees at the State and local levels, as well as volunteers at those levels.

EPA defines volunteers as employees, OSHA does not.

Firefighters, both career and volunteer, make up nearly 1,000,000 of the first responders that fall under these standards.

Others include law enforcement, public works, emergency managers, and emergency medical services (EMS) personnel.

One of the most important considerations of the new law is the initial training requirements put forth by OSHA in Paragraph Q.

This requires that emergency responders achieve and complete certain levels of competency according to their roles in a response.

OSHA has issued five levels appropriate for first responders reacting to a hazmat incident.

Level I:

(Awareness) Those individuals who are likely to witness or discover a hazmat release and initiate the response.

This level requires competency in six basic Hazmat areas. The law specifies no set hours of required training.

Level II:

(Operations) Those individuals who respond to a release or to a potential release to protect property, persons and the environment without attempting to stop the release.

This level requires at least eight hours of training beyond the awareness level, plus competency in six specific areas.

Level III:

(Hazardous Material Technicians) Individuals who actually respond to a release for the purpose of stopping it.

This requires 24 hours of training equal to operations level, plus competency in nine specific areas.

Level IV:

(Hazardous Material Specialist) This is for individuals who support the Technicians with a more specific knowledge of the substances to be contained.

This level requires 24 hours of training equal to the Technician level, plus competency in nine other areas.

Level V:

(On-scene Incident Commander) This is for individuals who assume control of an incident beyond the awareness level.

This requires 24 hours of training equal to the Operations level, plus competency in six other specific areas.

In addition to the initial training requirements, refresher training of sufficient content to maintain the given level of competency must be demonstrated annually.

Also, employers must keep a record of methodology to demonstrate their employees competence for these levels.

Another consideration of the law is the implementation of the Incident Command System (ICS) for responses to hazardous material incidents.

The need for coordination in single and multi jurisdictional releases is important for communication, leadership, safety and the continuity of the response.

The ICS system completes this task while providing for all-hazards response in other emergency situations as well.

Additionally, Hazardous Material "Hazmat" Response Teams should be aware of required medical examinations and consultations for members at least every 12 months to comply with this law.

NFPA standards 471 (Recommended Practice for Responding to Hazardous Materials Incidents), 472 (Standard for Professional Competence of Responders to Hazardous Materials Incidents), and 1561 (Standard on Fire Department Incident Management System) are also available for use in developing your training programs.

Reminder on the Roles of the SERC and LEPC

At several recent Hazmat incidents, the question has been asked, "What is the LEPC doing in response to this incident?"

This seems to suggest that at least some agencies and the public do not understand the purpose and/or the function of the LEPC, and perhaps the SERC.

Neither the SERCs nor LEPCs are, in fact, responsible for responding to incidents, although many members of both these bodies may belong to response type agencies.

This would indicate that some type of public education program is necessary to help others better understand the roles and responsibilities of the SERCs and LEPCs.

To reiterate, the following is from NRT-1, Hazardous Materials Emergency Planning Guide and follows Section 301 of Title III of SARA.

The emergency planning sections are designed to develop State and local government emergency preparedness and response capabilities through better coordination and planning, especially at the local level.

Title III requires that the governor of each State designate a State Emergency Response Commission (SERC) by April 17, 1987.

While existing State organizations can be designated as the SERC, the commission should have broad-based representation.

Public agencies and departments concerned with issues relating to the environment, natural resources, emergency management, public health, occupational safety, and transportation all have important roles in Title III activities.

Various public and private sector groups and associations with interest and experience in Title III issues can also be included on the SERC.

The SERC must designate local emergency planning districts by July 17, 1987, and appoint local emergency planning committees (LEPCs) within one month after a district is designated.

The SERC is responsible for supervising and coordinating the activities of the LEPCs, for establishing procedures for receiving and processing public requests for information collected under other sections of Title III, and for reviewing local emergency plans.

The LEPC must include elected State and local officials, police, fire, civil defense, public health professionals, environmental, hospital, and transportation officials as well as representatives of facilities, community groups, and the media.

Interested persons may petition the SERC to modify the membership of an LEPC.

No later than September 17, 1987, facilities subject to the emergency planning requirements must notify the LEPC of a representative who will participate in the planning process as a facility coordinator.

The LEPC must establish rules, give public notice of its activities, and establish procedures for handling public requests for information.

The LEPC's primary responsibility will be to develop an emergency response plan by October 17, 1988.

In developing this plan, the local committee will evaluate available resources for preparing for and responding to a potential chemical accident.

The emergency planning activities of the LEPC and facilities should initially be focused on, but not limited to, the extremely hazardous substances list (current version).

Additionally, the LEPC should coordinate activities and planning goals with adjacent planning districts, and exercise the plan on a regularly scheduled basis, such as annually.

EPCRA Questions and Answers

A facility owner/operator uses chlorine to bleach flour at his/her facility. Would this facility owner/operator be exempt from reporting the chlorine used to bleach flour under SARA Title III Section 311/312?

SARA Title III Section 311(e)(i) exempts any food, food additive, drug, or..cosmetic regulated by the Food and Drug Administration (FDA).

EPA considers a substance to be regulated by the FDA as long as the substance is used in a manner which is consistent with the FDA regulations.

FDA regulations (27 CFR 132.200) affect the bleaching of flour with chlorine.

Chlorine, therefore, is exempt from reporting under SARA Title III Sections 311/312 when its use at a facility is consistent with this FDA regulation (i.e., the bleaching of flour).

The definition of "facility" under SARA Title III Section 329 states that "for purposes of Section 304, the term includes motor vehicles, rolling stock, and aircraft". The term "rolling stock" is not defined further.

For purposes of SARA Title III Section 304, what items are covered by the term "rolling stock".?

The term "rolling stock" is a generic term that is used in the railroad industry to denote anything on rail wheels.

The term includes locomotives, freight cars, flat cars, and other vehicles that use steel wheels on railroad tracks.

The term is not specifically defined in either Department of Transportation regulations or interpretations.

For purposes of SARA Title III Section 304 reporting, EPA interprets "rolling stock" to be the same items that fall within the scope of the generic term as commonly understood by the railroad industry.

A public warehouse is used by several unrelated companies to store extremely hazardous substances (EHSs).

For purposes of emergency planning notification, who is responsible, under SARA Title III Section 302, for notifying the State Emergency Response Commission if a threshold planning quantity (TPQ) of an EHS is present at the warehouse?

The emergency planning regulation (40 CFR 355.30(b)) states the "The owner/operator of a facility subject to this section shall provide notification to the Commission that it is a facility subject to the emergency planning requirements of this Part."

Thus, the owner/operator of the warehouse should make the notification if an EHS is present in an amount equal to or in excess of its TPQ.

In the event of noncompliance, both the owner and operator may be held liable.

(Note: The ownership / operatorship of the chemicals is not an issue here, but rather the ownership / operatorship of the facility at which the chemicals are present.)

The companies who rent space in the warehouse may be considered operators if they participate in the operation of the facility to any extent.

For example, a company that rents space in the warehouse and physically enters the facility, stores the material in the storage space, and then leaves the facility would be considered an operator.

The companies may also be considered operators (whether they physically enter the warehouse facility or not) if they control the rented space to the extent that they can exclude others from the space.

It is also the responsibility of the owner or operator of the facility to provide the name of a facility emergency coordinator to the local emergency planning committee. (40 CFR 355.30(b))

In the event of noncompliance with this regulation, all of the owners and operators of the facility are liable.

Has Your LEPC:

- Established a Permanent Address for Facilities, the SERC, and EPA to Mail Required Forms and Information;
- Established a 24-hour Manned Emergency Phone Number (i.e., Sheriff's Office, 911, Fire Department) for Facilities to Make Release Notifications -- an Answering Machine Is Not Sufficient;
- Notified the SERC of Any Changes to the LEPC Structure, Especially a Change in the Chair or Address;
- Provided EPCRA Training to Local Emergency Responders, Specifically Local Fire Departments Who Often Can Provide Information to Facilities During Fire Inspections, and Police Departments Who Respond to Haz-mat Incidents.