REGION 6 Preparedness, Response, and Prevention Update

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Tragedy in East Texas – Space Shuttle Columbia Loss

Background

At approximately 0800 CST on Saturday, February 1, 2003, the Space Shuttle Columbia broke apart in flight, spreading potentially toxic debris over the States of Texas and Louisiana.
Shortly thereafter, the President issued an emergency declaration for the States of Texas and Louisiana.

From the onset, this was a multi-agency response and recovery operation. Within hours, federal and state agencies deployed teams to the disaster area to assist local fire, law enforcement, and emergency management authorities.

More than 60 federal, state, local and volunteer agencies, and private groups responded with personnel, supplies, and equipment the first day.

The search effort was massive. Initially, 33 Texas counties and 6 Louisiana parishes reported shuttle debris. Ultimately, people in 169 Texas counties, 52 Louisiana parishes, 34 other States and five foreign countries would call to report potential shuttle-related debris.

The search for shuttle debris ranged from the coast of California to the mouth of the Mississippi in Louisiana. Reports came in from California to the Carolinas, as well as the Gulf of Mexico, the Bahamas, Mexico, and Jamaica.

The search employed over 22,000 workers from more than 130 governmental bodies, volunteer agencies, private groups, and contractors. Searchers would use everything from satellite imagery, a NASA ER-2 and a DC-3 to a submarine, both multi-beam and side-scan sonar in the hunt for critical parts.

The primary area in Texas and Louisiana – along the projected flight path of the shuttle – for the air, water, and ground search is roughly the size of the State of Delaware and Rhode Island combined. Much of the terrain is heavily forested with dense underbrush.

Even the main target of the water search – Toledo Bend Reservoir – consists of submerged forest with numerous abandoned buildings and other structures, including railroad tracks and trains. Geographically, the shuttle disaster is the biggest searched of its kind in history.

Due to the numerous agencies taking leads in the areas of importance, a unified command was the leadership style employed for the disaster team. The operation focused on five main areas for operational objectives:

- Ensure Public Safety
- Recover the Crew
- Retrieve Evidence to Support the Investigation
- Compensate Costs Incurred by Local Jurisdictions
- Develop Transition Strategy

Ensure Public Safety

The primary goal of all disaster employees was to ensure public safety. For example, NASA identified potential hazardous materials on the shuttle.

These items included pyrotechnic devices, such as landing gear thruster and release cartridges and hinge cutter assemblies.

They also consisted of pressurized tanks containing inert gases or non-pressurized tanks filled with toxic substances, such as hydrogen, nitrogen tetroxide, and mono-methyl hydrazine. Once discovered, EPA secured and removed hazardous materials and did appropriate cleanup measures.

The Space Shuttle Columbia had numerous items onboard that were potential hazardous materials if they remained intact after the break up of the orbiter and fell to earth.

This was a major concern for both the general public and the members of the response team as they searched the enormous debris field in Texas and Louisiana for shuttle materials.

In Texas, the EPA worked closely with NASA to determined the kinds and amounts of hazardous materials that were present on the Columbia. Of particular concern were fuel tanks, chemical tanks with associated valves and tubing, and pyrotechnic devices from the orbiter.

EPA worked with National Guard Civil Support Teams, state, and local authorities to work with them and clear school campuses and public access areas of all shuttle debris as soon as possible.

EPA also tested air and water samples taken along the flight path for shuttle contaminants. EPA found no evidence of hazardous materials in the atmosphere or drinking water supplies.

Several schools in East Texas reported shuttle debris on campus after the shuttle disaster and were closed by local officials. By February 4, all schools reopened.

Within days after reopening, authorities had removed all shuttle debris from every school campus.

In the field, EPA worked with the Texas Commission for Environmental Quality to test for, collect, and cleanup hazardous materials found during the ground search. In Louisiana, the State Police are trained for hazardous materials responses.

EPA assistance was not requested by Louisiana with the exception of consultation on where to send water samples from the Toledo Bend Reservoir for testing for the specific hazardous materials on the shuttle.

To date, EPA had recovered 39 % of the total weight of shuttle material, 76 % of hazardous tanks, and 20 % of the hazardous pyrotechnics. A total of 82,567 shuttle items have been received at the Kennedy Space Center. Of the total, 48,501 items were recovered and cataloged by EPA.

Recover Crew Remains

Several teams began searching for crew remains from dawn to dusk on February 3. The teams consisted of over 500 persons, including FBI, NASA, Marshals Service, National Guard, Urban Search and Rescue, and DPS officers.

The FBI concentrated its search for crew remains in a 13-square mile area in San Augustine and Sabine counties around Bronson and Hemphill. The FBI successfully concluded its crew remains mission on February 13. The focus of the operation then shifted to the recovery of shuttle debris.

Retrieve Evidence

Local fire, police, and volunteers, DPS officers and Louisiana State Police, EPA, USFS and TFS, and National Guard Units began clearing shuttle debris in high traffic areas of Texas and Louisiana on February 4.

A one-page set of guidelines, prepared by Texas, NASA and EPA, significantly improved the cleanup process.

The guidelines enabled local, state, and federal personnel to collect, document, tag and transport non-hazardous debris without prior EPA or NASA clearance.

Under NASA's direction, the TFS assumed responsibility for search activities in the field, which involved extensive air and ground searches in a 10-mile by 240-mile corridor along the projected shuttle flight path.

The ground search employed up to 597 twenty-person hand crews, 20 Incident Management Teams, and Upper Management for a total of 17,304 people to search by the time the search was concluded on April 30.

The total area searched was 703,688 acres, stretching from Sabine county to Parker and Hood counties. EPA, NASA, USFS, and persons from other agencies also participated in the ground search of the 4-mile wide center of the corridor.

SPACE SHUTTLE COLUMBIA AND HER CREW

The following information was taken from a news release from www.nasa.gov and TCEQ.

Commander: Rick D. Husband

Rick Husband, 45, a colonel in the U.S. Air Force, was a test pilot and veteran of one spaceflight. He served as commander for STS-107.

Husband received a bachelor of science in mechanical engineering from Texas Tech University in 1980 and a master of science in mechanical engineering from California State University-Fresno in 1990. As commander, Husband was responsible for the overall conduct of the mission.

During the mission, he maneuvered Columbia as part of several experiments in the shuttle's payload bay that focused on the Earth and the Sun.

Selected by NASA in December 1994, Husband served as the pilot of STS-96 in 1999 - a 10-day mission during which the crew performed the first docking with the International Space Station. Prior to STS-107, Husband logged more than 235 hours in space.

What drove Husband to become an astronaut, ".....watching the Moon landings and everything, it was just so incredibly adventurous and exciting to me that I just thought, 'There's no doubt in my mind that that's what I want to do when I grow up.'"

After being selected to join the astronaut program, Husband said, "And so, it was the achievement of a lifelong dream and a goal. And, it's very humbling, I'd say, and exciting at the same time to be able to actually go and do the kind of thing that I'd wanted to do and the thing that I had looked forward to doing for such a long time."

Pilot: William C. McCool

William C. McCool, 41, a commander in the U.S. Navy, was a former test pilot. He served as pilot for STS-107.

He received a bachelor of science in applied science from the U.S. Naval Academy in 1983, a master of science in computer science from the University of Maryland in 1985, and a master of science in aeronautical engineering from the U.S. Naval Postgraduate School in 1992.

He was also responsible for maneuvering Columbia as part of several experiments mounted in the shuttle's payload bay. Selected by NASA in April 1996, McCool was making his first spaceflight.

When asked what led him to become an astronaut, McCool said “As a child, [my father] was a big advocate of building model airplanes, so, I had this natural inclination for flying. And I think it’s just something that, subconsciously, just led me into an aviation career.

And as my career progressed, things just worked out in my benefit to lead me into the astronaut program. So, I think parental influence is probably the biggest motivator behind everything that’s led me to become an astronaut.”

On day eight the crew was woken up with the song “Imagine” by John Lennon; after hearing this McCool stated, “From our orbital vantage point, we observe an Earth without borders, full of peace, beauty and magnificance, and we pray that humanity as a whole can imagine a borderless world as we see it, and strive to live as one in peace.”

Payload Commander: Michael P. Anderson

Michael P. Anderson, 43, a lieutenant colonel in the U.S. Air Force, was a former instructor pilot and tactical officer, and a veteran of one spaceflight. He served as Payload Commander and Mission Specialist 3 for STS-107. As payload commander he was responsible for the success (management) of the science mission aboard STS-107.

Anderson received a bachelor of science in physics/astronomy from University of Washington in 1981 and a master of science in physics from Creighton University in 1990. Selected by NASA in December 1994, Anderson flew on STS-89 in 1998 - the eighth Shuttle-Mir docking mission. Prior to STS-107, Anderson logged over 211 hours in space.

The reasons that Anderson wanted to be an astronaut; “...at that time, we were going to the Moon and doing some really fantastic things with the space program, and, to me that was just the best combination of the two.

‘You know, here you have these men that are scientists, engineers, and they’re also flying these wonderful airplanes and these great spaceships, and they’re going places. And to me, that just seemed like the perfect mix and the perfect job.

‘So, very early on, I just thought being an astronaut would be a fantastic thing to do.”

Mission Specialist 1: David M. Brown

David M. Brown, 46, a captain in the U.S. Navy, was a naval aviator and flight surgeon. He served as Mission Specialist 1 for STS-107.

Brown received a bachelor of science in biology from the College of William and Mary in 1978 and a doctorate in medicine from Eastern Virginia Medical School in 1982. Selected by NASA in April 1996, Brown was making his first spaceflight.

Brown was interested in being a astronaut but he wasn’t sure that it was a possibility. “I was a little bit late for Mercury, but I remember Gemini and Apollo quite well in the Sixties, and then Skylab and early shuttle. But I absolutely couldn’t identify with the people who were astronauts. I thought they were movie stars.

‘And I just thought I was kind of a normal kid. And so I couldn’t see a path how a normal kid could ever get to be one of those people that I just couldn’t identify with.

‘And so, while I would’ve said, ‘Hey, this is like the coolest thing you could possibly do,’ it really wasn’t something that I ever thought that I would end up doing.” In stating his feelings about the space program Brown said, “Whatever I can contribute to science, to improve science, I think is really great.

Mission Specialist 2: Kalpana Chawla

Kalpana Chawla, 41, was an aerospace engineer and an FAA Certified Flight Instructor. Chawla served as Flight Engineer and Mission Specialist 2 for STS-107.

She received a bachelor of science in aeronautical engineering from Punjab Engineering College, India, in 1982, a master of science in aerospace engineering from the University of Texas-Arlington in 1984, and a doctorate in aerospace engineering from the University of Colorado-Boulder in 1988.

As a member of the Red Team, Chawla, with CDR Rick Husband, was responsible for maneuvering Columbia as part of several experiments in the shuttle's payload bay.

Selected by NASA in December 1994, Chawla was the prime robotic arm operator on STS-87 in 1997, the fourth U.S. Microgravity Payload flight.

STS-87 focused on how the weightless environment of space affects various physical processes. Prior to STS-107, Chawla logged more than 376 hours in space.

When asked what inspires her in a pre-flight interview, Chawla answered, “I think inspiration and tied with it is motivation. For me, definately, it comes every day from people in all walks of life. It’s easy for me to be motivated and inspired by seeing somebody who just goes all out to do something.”

Mission Specialist 4: Laurel Blair Salton Clark

Laurel Clark, 41, a commander (captain-select) in the U.S. Navy and a naval flight surgeon, was Mission Specialist 4 on STS-107. Clark received a bachelor of science in zoology from the University of Wisconsin-Madison in 1983 and a doctorate in medicine from the same school in 1987.

Selected by NASA in April 1996, Clark was making her first spaceflight.

Clark gradually began to consider becoming an astronaut, “I was interested in the Moon landings just about the same as everyone else from my generation. We’re incredibly lucky to be able to be working where we are up above the Earth and being able to see our planet from that vantage point.”

Payload Specialist 1: Ilan Ramon

Ilan Ramon, 48, a colonel in the Israeli Air Force, was a fighter pilot who was the only payload specialist on STS-107. Ramon received a bachelor of science in electronics and computer engineering from the University of Tel Aviv, Israel, in 1987.

Ramon was selected as a Payload Specialist by the Israeli Air Force in 1997 and approved by NASA in 1998. He reported for training at the NASA Johnson Space Center in Houston in July 1998 and was making his first spaceflight.

While orbiting, Ramon was quoted as saying, “The world looks so marvelous from up here, so peaceful, so wonderful and so fragile. The atmosphere is so thin and fragile, I think all of us have to keep it clean and good. It saves our life and gives our life.”

COLUMBIA SHUTTLE RECOVERY PROJECT

Tragedy struck our nation on February 1, 2003 as the Columbia Shuttle broke up over Texas on it’s return to Kennedy Space Center in Florida. Immediately, the local responders were called to action in response to citizen calls reporting found debris and concerns over hazardous chemicals.

That evening state responders arrived to aid the local responders with federal aide not far behind. Recovery sites were opened in the East Texas areas of Corsicana, Lufkin, Nacogdoches, Palestine, Jasper/Hemphill, Naval Air Station Ft. Worth, and Barksdale AFB, Louisiana.

In addition to handling the public and environmental concerns related to the shuttle wreckage; the local communities also had to deal with a large influx of media and recovery personnel.

We interviewed some of the LEPC chairs, city managers, county managers, fire chiefs, sheriff's office, police chiefs, emergency managers, and judges from the affected areas.

This article will focus on specific shuttle recovery efforts in regards to community preparedness, the role that the community played during the response, the level of communication during the initial phase of the response, and the interaction between the local, state, and federal agencies.

The main search corridor is 2400 square miles and to date over 700,000 acres have been searched; 1.4 million acres have been cleared by helicopter, ground teams have completed 78% of their assigned areas, and the underwater search operations have been finished.

More than 70,000 items have been recovered accounting for approximately 40% of the shuttle by weight.

The recovery site camps housed more than 14,000 people and more than 100 federal, state, and local agencies and volunteer agencies worked together for the common cause.

In addition to collecting the shuttle debris, the responders tested local water supplies that debris may have possibly fallen into.

Another concern for searchers were the pyrotechnic debris that may have been laying undetonated on the ground.

Despite the amount of debris scattered over such a large area, the miraculous fact is that no person was hurt by falling debris. The collected evidence was sent to Kennedy Space Center and placed on a grid layout.

In most of the communities, all of the local agencies participated in responding to the event and there was an outpouring of volunteers from in and out of state.

At the initialization of the effort; the emergency operations plans were activated and the emergency operation centers were opened, both paid and volunteer fire departments worked with DPS troopers to search for debris.

The Sheriff's office provided security for the found debris, public safety and media relations.

Decontamination areas were set up at the local hospitals by emergency management. The fire department Phone companies came in and dropped both regular and DSL lines.

In one area, a separate dispatcher was set up to deal solely with shuttle calls. The local agencies even helped to arrange for and coordinate the hotel rooms for the out of town guests and also aided in setting up water and electricity for the recovery sites.

NASA Administrator Sean O'Keefe said, "The response to the Columbia tragedy has been simply overwhelming. Private citizens, local, state and federal agencies have worked so hard to help us get to this point.

NASA cannot thank the communities and our government partners enough for what they have done to aid the accident investigation.

We have retrieved a large percentage of Columbia, and that will go a long way toward helping solve the puzzle of what happened February 1st.

All the participants will forever be a part of the NASA family, and we will try to honor them by returning to flight safely, and as soon as possible."

Interaction between the local, state, and federal agencies flowed together well after the initial period of organizing the command structure.

The many agencies came together in the effort to function as one unit with the single purpose of aiding NASA in recovering the Columbia. As the response continued, the interagency relationships continued to strengthen and the bond between the individual relationships turned into friendships.

The Red Cross and Salvation Army both came in during the initial hours of the event to care for the responders, making sure that they had food and adequate hydration.

The lessons learned by the local communities were:

- Emergency plans can always use improvements, and changes need to be made on a regular basis to keep the plan current with the needs of the community; this increases efficiency and reduces waste of resources and manpower.

- Assessment of your resources is very important; continue to discover and catalogue your community's capabilities and resources----know who and what you have available to you. Many of the emergency managers noted that there are lots of resources that could be utilized in the future.

- Preparedness is important for everything, after 9-11 the updates made to the phone banks and emergency plans really made the operation move smoothly, especially in the initial stages of the response. So the prior hazard mitigation planning was invaluable, especially with the decontamination efforts.

- Training more people on the Incident Command System would aid the responders in the team effort.

- Train and practice; there is no substitute for training!!!! Community drills can improve awareness for the public and test their emergency plans and response capabilities.

- The local agencies should train with federal agencies as well as state agencies; this will develop interagency relationships in addition to strengthening their preparedness.

- Exchanging ideas and plans with other communities generates better plans with fresh insight from other responders.

- Patience is important; don't rush into the response without specific tasking and prior instruction. Maintain your structure; this is especially important when doing interagency work that will require reimbursement from the other agencies.

- If work is done that is outside of the tasking that you've been given, getting reimbursement may be difficult. Also, by maintaining your structure, you have pride in your particular organization.

- Despite the response, regular community business must continue and the public will still have their daily needs. This will need to be incorporated into the emergency plan.

- Media training is extremely important; a community can suffer permanent damage to it's reputation due to a negative media viewpoint. Have a media debriefing daily; this keeps the media and public informed and more comfortable about what is going on in the community and with the response.

- Create a media room to assist them in their job and keep them in an area that is safe for them and the responders. Many are now better prepared for future media relations.

- Rural areas need to be as prepared as the big cities; they aren't immune to disasters.

- Be prepared to deal with unsolicited volunteers and supplies.

COMMUNICATION: THE BIG TALK!!

Most of the individuals that we spoke with emphasized the extreme importance of

communicating.

Not only must you communicate often but do so in a clear, explicit manner so that everyone understands what their task is and how to accomplish the task.

The first communication that the communities received was through the media, as the response progressed NASA had to make the determination of what information the responders needed to do their job in an effective and safe manner.

The media releases aided public awareness on how to deal with found debris and who to contact to remove the items.

Each morning at 9am there was a state conference call for the sites and surrounding counties; this kept everyone up to date on what was occurring at the other sites and informed of what was expected of their area.

One emergency manager advises that anytime there is a disaster, immediately find out when the state conference call is being held and participate. Once the agencies were informed, they're better able to serve the public and keep them aware of progress of the event.

Despite the tragedy of the Columbia Space Shuttle, many positive points have resulted from it. Emergency plans have been fine tuned, the communities benefitted from having been educated on the space program, relationships have been formed, and disaster awareness has been raised.

Due to the development of a relationship with NASA personnel, one emergency manager has exchanged plan ideas with them and furthered his communities' response plan. NASA physicians communicated with the local hospitals on patient care, decontamination, and health and safety.

Most of communication barriers that were experienced were in the initial phase of the response as organization was being structured and tended to be on the local level between the county and city level.

As the response continued, information was given freely and the groups worked together seamlessly, each person understanding what their task was and how to perform it.

Overall, the communities are pleased with the their ability to respond, the function of their emergency plan and their participation in the effort.

**To report debris, call NASA at 1-866-446-6603

LEPCs and Risk Management Plans: Encouraging Hazard Reduction

NOTE: The following information is a brief overview of an article written prepared by the National Institute for Chemical Studies - prepared for the U.S. EPA/CEPPO. To review the complete 36 page study it is available for downloading in PDF format by going to http://www.nicsinfo.org/LEPCStudyFinalReport.pdf.

Under an agreement with the US EPA, NICS (National Institute for Chemical Studies) conducted a study (released June 2002) to assess how approximately 32 LEPCs (local emergency planning committees) are using risk management plans (RMP) to improve community safety.

The intent of the study is develop useful information that can be used by other LEPCs, by State Emergency Response Commissions (SERCs), and by the EPA to more fully take advantage of the RMP program to help improve community safety.

Background:

The EPA required companies, starting in 1999, to tell the public about worst-case possibilities if toxic or flammable chemicals escape from their property.

LEPCs (Local Emergency Planning Committees) were established under EPCRA as a forum to help provide local governments and the public with information about possible chemical hazards in their communities. Under EPCRA, LEPCs have two primary responsibilities:

- To annually review, test, and update emergency plans for their planning district. The plan must include the identity and location of hazardous materials, procedures for immediate response to a chemical accident, ways to notify the public about actions they must take, names of coordinators at chemical plants, and schedules and arrangements for testing the plan through emergency drills.

- LEPCs also collect emergency release and hazardous chemical inventory information submitted by local facilities (Tier 2 information) and make this information available to the public upon request.

The Risk Management Program (40 CFR Part 68) was designed to help prevent accidental releases of substances to the air that may cause immediate serious harm to the public health, the environment, and to mitigate the effects of fo releases that do occur.

The main elements of the facility of compliance with the RMP regulations are:

- A hazard assessment, including a five-year accident history involving the regulated substances and descriptions of the worst-case and alternate-case accident scenarios for the those substances.

- A management system to oversee implementation of the RMP elements.

- A prevention program to analyze the hazards that are present and describe the systems and practices for managing the risk of a chemical accident.

- An emergency response program which is coordinated with the local LEPC.

- A Risk Management Plan (RMP) that describes these activities.

Role of LEPCs in RMP and Hazardous Reduction:

Although LEPCs are not mandated or required to take action under the Risk Management Program, they serve as a central point around which emergency management agencies, responders, industry and the community may work together to find solutions to hazardous material risk management issues.

With this understanding LEPCs may play an active role in RMP - related activities including risk communication, public education, industry outreach, mitigation, and emergency planning.

Because LEPCs have the responsibility for increasing hazardous materials safety in various ways, this allows LEPCs to enhance and refine information provided under RMP to improve community safety.

The following examples of how LEPCs are involved in the Risk Management Plan are not a comprehensive analysis of the LEPC activity across the United States and NICS recognizes that there are other examples of LEPC efforts in hazard reduction that are not examined in the study.

Examples of how some LEPCs are involved in implementing the RMP requirements:

- Staying informed of RMP requirements: Nearly all of the LEPCs reported that they had made efforts early on to develop an understanding of who was required to file RMPs and what filing requirements existed. This also allowed them to help identify facilities required to file RMPs.

- Assisting facilities in preparing RMPs: Some LEPCs state they served as a information clearinghouse for facilities required to file RMPs and provided technical guidance to smaller facilities. Ex. Fayette County (GA) LEPC and Jefferson County (KY) reported hiring consultants to train facilities in complying with RMP requirements. Springfield (MA) LEPC - reported preparing the RMP for the city wastewater treatment plant.

- Assisting in public disclosure of RMPs: LEPCs reported this is their greatest involvement in the Risk Management Program. LEPCs stated they believe this represented an extension of their public outreach responsibilities under EPCRA. Example: Kanawha Putnam LEPC hosted/sponsored the public rollout of their facility RMPs at a regular LEPC meeting or at a special community event.

- Working with facilities to meet RMP filing requirements: In a few instances LEPCs noted that they are working with the new facilities in the district to comply with the requirements for filing RMPs.

- Maintaining copies of RMPs at the LEPC office: Some facilities reported maintaining copies of RMP or the executive summaries of the RMPs at the LEPC office. Many reported that they did not maintain copies of the plans but could obtain them from the facility.

Examples Of How LEPCs Have Used RMP and Similar Information to Encourage Hazard Reduction:

Actions taken pursuant to RMP:

- Providing a forum through the LEPC by which industries present their RMP plans to each other and exchange information on safety programs (York County, PA ; LEPC).

- Using RMP information on chlorine hazards in the community to obtain funding for a chlorine safety training program for local industries and utilities (Fayette County, GA; LEPC).

- Revising community emergency plans using the RMP program design guidelines focusing on the greatest chemical risks identified by the RMPs: chlorine, ammonia, propane, LPG (Honolulu, HI; LEPC).

- Developing protective action training programs and establishing and upgrading community warning systems (Union County, AR; LEPC).

Actions taken pursuant to EPCRA:

- Conducting inspections of SARA Title III facilities and including a focus on hazard reduction and pollution prevention opportunities (Springfield, MA; LEPC)

- Reviewing and critiquing recent accidents and training exercises to identify lessons learned for future prevention (East Baton Rouge, LA; LEPC)

- Sponsoring industry roundtables and committees as a regular forum to address mutual safety and hazard reduction concerns (Centre County, PA)

- Partnering with local industry groups to disseminate information on safety and hazard reduction through regular LEPC meetings and special seminars (Monroe County, PA; LEPC)

Examples of Hazard Reductions Achieved through RMP and SARA Title III:

- Honolulu, HI - Wastewater treatment plant changed from chlorine treatment to ultraviolet and chlorine solution treatment.

- Wahtenaw, MI - EHS inspection by the county and LEPC at a local manufacturing facility resulted in reduction of bulk storage of toluene diisocynate from bulk rail storage to “just in time” delivery.

- Deer Park, TX - Facility reported eliminating 90 tons of ammonia by replacing its refrigeration system, thereby reducing the WCS (worst case scenario) zone from 8.1 to 1.3 miles.

While there have been opportunities for LEPCs to encourage hazard reduction, LEPCs have identified obstacles or challenges that enable or limit them from making a meaningful contribution to reduce hazard reductions.

The following are a few of the concerns brought to light by LEPCs:

- Lack of Mandate Under EPCRA 112(r) - 112(r) authority appears to be unclear regarding the role of LEPCs, but there is no perceived mandate in either the RMP statute or rule for LEPC involvement in hazard reduction. This lack of clarity proved to limit the ability of LEPCs to gain industry cooperation to jointly pursue hazard reduction.

- Lack of Resources to Devote to Hazard Reduction - Nearly all the LEPCs stated that the greatest obstacle to actively engaging in encouraging hazard reduction is the lack of staff and financial resources.

- Lack of Technical Expertise -The lack of technical backgrounds was seen as limiting LEPC credibility with plant personnel and management.

- Public Apathy - Many LEPCs noted that public apathy toward chemical risks in their communities made it difficult for the LEPC to generate support for hazard reduction.

- Most Significant Hazards Not Addressed by RMP - Many LEPCs stated the Risk Management Plan program does not address the risk from transportation of hazardous materials which is seen by many LEPCs as the most significant hazmat risk faced by their communities.

Conclusion:

In conclusion, nearly all the LEPCs contacted recognized the value and importance of the Risk Management Program. Many LEPCs see a potential role for their organizations in encouraging hazard reduction using RMP or similar information.

They see their role in hazard reduction resulting more from carrying out their EPCRA responsibilities than from RMP. However, LEPCs contacted in this study reported that they have had minimal involvement in implementing the RMP program since the initial submission plan in June, 1999.

Finally, most LEPCs noted that any LEPC involvement in the RMP program, particularly in hazard reduction will require that EPA address the obstacles noted in this report that may limit or hinder their involvement.

Recommendations:

Based on the findings of this study, the National Institute for Chemical Studies believes there are significant opportunities to strengthen the role of Local Emergency Planning Committees in reducing chemical hazards.

The following recommendations are offered for consideration by EPA/CEPPO:

- EPA should publicize the best practices of LEPCs in hazard reduction that are highlighted in this report.

- EPA should clarify its expectations of the role of LEPCs in the implementation of the Risk Management Plan program and in hazard reduction. They could offer/develop guidance for LEPCs and SERCs.

- EPA should re-examine and re-evaluate the support structure for LEPCs and its priority within EPA/CEPPO.

- EPA should seek to improve its understanding of characteristics of active LEPCs and use this information to focus its efforts on LEPCs that are not currently active.

Rural ICS and Extended Hazmat Incidents

Frederick J. (Fred) Cowie, Ph.D.

In a previous article ("Hometown ICS vs. California Wildfire ICS") we looked at the need for a scaled - down, modified ICS for rural areas; since a responder in a rural jurisdiction might go an entire career without responding to a major, extended, and extensive incident.

Single story fires, highway accidents, burglaries and robberies, heart attacks and strokes, and food poisonings at picnics are the stuff of normal response workdays. But, once in a great while somewhere in your state, a rural jurisdiction will be, as my old redheaded boss used to say, "overwhelmed by events.

OBE was the acronym, "overwhelmed by events." What will be addressed in this article is the OBE factor and how to address it from the local, rural, hometown level. We will look at this event statistically and from three points of view - three perspectives: local, state and federal.

Local might mean a town, county or Indian reservation. The type of local jurisdiction is not important.

What is important is the lack of resources to manage the major event. The state will be your state, even if in the case of the Indian reservation, it is not a higher jurisdiction and a major player; the federal level will be the usual suspects - your regional EPA, DOT, FEMA or your agency of choice.

What are the odds an event will happen in a given jurisdiction: local, state or federal region? Simple fire jurisdictions, given the need for SCBAs and other PPE, are the normal local lead hazmat agency.

Let's say for narrative purposes that a state has 250 separately incorporated local fire jurisdictions (given six states in the region - if less states do the math).

Thus, the odds of a major hazmat event are 250 times more likely to happen within the state jurisdiction than a local one, and 1500 times more likely to happen in a given federal region than a local one and six more times likely than a state jurisdiction.

Therefore, when a local says "It's not going to happen here!" that responder is statistically in good shape.

The state or federal manager, however, says "What about when the big one happens?'' Why, because she/he has seen 250 to 1500 more major ones than the local has. This should give us a clue as to how to help solve the OBE problem at the local level.

Now that we have some idea of the odds of an event happening in a given jurisdiction; the next thing we have to do is to ask when there is a major event, “Whose problem is it?”

Well, to paraphrase a president, it all depends on what the definition of a problem is. Usually the local jurisdiction sees it as its problem but that is because they define problem incorrectly.

The jurisdiction’s role is to insure public safety. Public safety is their problem and their responsibility. Keep the “citizens” safe: responder citizens, industry citizens, citizen citizens. In other words, keep the local responders, the local workers in the industry that caused the hazmat event, and the local citizens safe and out of harm’s way.

It is not the jurisdiction’s responsibility or duty to “fix” the problem and bring things back to *status quo ante* event. That responsibility belongs to the “responsible party,” as it were.

In some major jurisdictions where large departments field large hazmat contingencies; some “fixing” and some “aggressive actions” may be taken to bring events under control, but even then the “responsible party” is the one who has to make things whole again.

So, it is never the responsibility of the local rural response agencies to make things whole again, to fix things, to be all things to all people. The role of the local rural response agency is public safety. Get everybody away and don’t let anyone near.

Once everyone is safe, out of harm’s way, and there is a perimeter at a safe distance, then and only then is the event *per se* addressed. Thus, we have first seen that the odds are that no major even will happen in any given local rural jurisdiction. Second, if it does happen, the local agencies’ jobs are public safety, not to fix the problem and make things whole again.

Given that, let us address the issues of aggressive/offensive event management and then recovery or bringing things back to business as usual. Third, therefore, in our list of things to consider is the role of aggressive/offensive response.

OSHA’s regulations require that the folks who perform aggressive/offensive response be appropriately and adequately trained, equipped, experienced and have a whole range of safety precautions, including medical monitoring. These are by nature beyond the scope of small, rural, volunteer departments.

Even if a rural jurisdiction had such response capabilities, there would not be enough major hazmat events to justify the financial and personnel outlays. Although, if there were, responders would get bored because of the lack of action befitting their training and go get jobs in industrial areas where the real hazmat action is.

We have seen this time and time again with highly trained tactical team, hazmat team and advance life support team members who move to urban areas so they can use their skills regularly. If there is to be a tactical, aggressive, offensive response, it cannot be at the local rural VFD level.

That would leave state, federal and industry levels, which might fill the void**.** Regardless of whose responsibility it may be to fix things, it is not that of the local responders. Who then?

Fourth, in our considerations is the concept of "responsible party". Rarely, if ever (oh, those pesky odds again), could a local jurisdiction be the "responsible party" under federal regulations. The odds are that it will be either the transporter, the carrier, the shipper, or the manufacturer.

Both of these have insurers (they have to) who will eventually have to pay, in full or in part, for the response and cleanup. As for response, they may not end up paying for regular duty time and regular supplies but could be held responsible for overtime and extraordinary supplies.

Therefore, in the great majority of cases, those responsible to fix the problem and pay for the fix are known. Be it railroad, a trucking company, a tank farm/refinery, a pipeline or a huge discount center we know that the local responders are not responsible and the responsible party is.

The "local friendly hazard provider" is the one responsible for the fixing of the problem. They have placed the citizens at risk with the release so they have to make things right.

It is the local jurisdiction's responsibility (under the public safety mandate) to make sure, via the fire department, public works department, public health department, city or county attorney's office and other regulatory agencies to make sure that things are fixed right.

If need be, they can call in state or federal regulators to help ensure adequate cleanup. The local role is to force, if necessary, proper response and reclamation with regard to both short term and long term public safety.

Not to do it themselves, but to make sure for the sake of the safety of the public that it is done. If no responsible party or potential responsible party is around, then the locals must pressure the federal and state public health people to make things right.

They can oversee and enforce but not do it themselves. To summarize we can say:

- the odds are that no major event will happen in any given local rural jurisdiction,

- the odds are 250 times larger that it will happen in any given state jurisdiction and 1500 times larger that it will happen in the relevant federal region;

- the role of the local rural jurisdiction is public safety, keeping citizens out of harms way, not to fix the problem and clean it up.

Aggressive/offensive response must be done by OSHA - regulated hazmat teams with medical monitoring, which are not found in rural jurisdictions; and, finally, under federal regulations the “responsible party,” be it a shipper or carrier, must make things right, and the responsible party’s insurer will bill be involved in paying for it, and if not them, then it falls to the state or the feds.

With all of that said, we can now look at what a local rural jurisdiction needs to do to prepare for that rare, extended, major hazmat event. What I propose below as a planning strategy is based upon the above realities.

This will be local rural planning based on local considerations, not on federal or state perspectives or on concepts derived from planners working with large, well-paid, in-place, permanent response infrastructures.

It is simple and it is effective, but it takes time, determination and perseverance.

Local Optimum Response Level:

Rural response agencies normally have an optimum level of response, that being the OSHA Level II Operations response level. This is a heightened defensive level.

All local personnel should have OSHA Level I Awareness training, and all fire personnel should be at Operations; while some law, EMS and public works personnel may also need Operations.

Local Hazards and Risks:

All known major hazards and their attending risks have what I call “local friendly hazard providers.” These are the coops, railroads, pipelines, tank farms, propane distributors, trucking companies, etc.

While much training is often done regarding response to specific hazards (flammable liquids, different gases, etc.), much more interface needs to be done with the local hazard provider.

What the local response community needs to know is: the local company’s response plan; the name and contact information of the company’s response and cleanup contractors; and the name and contact information of the company’s insurer.

All three of these groups (company personnel, contractors and insurers) should be invited regularly to meetings, conferences and training. It would help if the company's contractors or hazmat personnel could do some training for the local responders and build relationships.
I have used railroad, refinery and pipeline trainers regularly and it has done wonders for local response.

Tiered Response Planning:

Once it is confirmed that the local response is OSHA Level II Operations at most and you know through regular interface the level of response for each of the local friendly hazard providers (responsible parties), then you can plan for tiered response.

Local response (responders' and local companies' response) is Tier I. Normal mutual aid from other rural (Operations Level II) departments would also be Tier I. Tier II for local response agencies would be help from the state hazmat teams or regional hazmat teams from nearby cities.

Tier II for industry might be their regional hazmat teams. Many refineries, railroads and pipelines have such tiered response plans.

Tier III would be federal help (FEMA, EPA, military, etc.) for response agencies and help from other company regions or from headquarters for national corporations.

Just because there are no local hazmat teams or major cleanup contractors does not mean that these contingencies can be ignored during planning.

Each local agency should be familiar at least with the EPA's response capabilities and their assigned EPA On-Scene-Coordinator (OSC) at the very least.

Now, finally, we come to the item from the previous article (on rural ICS) which prompted this article – planning for expanded ICS functions at extended incidents.

Expanded ICS at Extended Events:

The finance, logistics and planning functions at the overwhelmingly vast majority of incidents are handled readily by the Incident Commander and the responding agencies. Regular budgets and mutual aid with maybe a little overtime take care of business as usual.

However, everyone knows about the biggies. Heck sake, we in Montana had the Alberton chlorine release, the Freemen and the Unabomber all on CNN at the same time for weeks. Sometimes it's OBE, overwhelmed by events.

Thus big time ICS finance, logistics and planning functions need to be planned for. I find this can be done easily using the following strategy.

- Explain well these functions at ICS training so they are understood.

- Hold training sessions and refreshers on these functions at state conferences and conventions. Invite key local personnel who might fill these slots such as purchasing agents (logistics), finance officers (finance) and local planners (planning).

  A few of these people from larger jurisdictions could act as ICS mutual aid to small rural jurisdictions.

- Put together state-level and/or federal-level teams which can supplement the locals and act as periodic relief when needed at large events. These teams could even put on the above noted training.

- Rotate locals (those who want to learn these functions well) through state- sponsored catastrophic event exercises so they can practice.

This completes our two-article look at rural, modified ICS.

This system can be used for all events - hazmat and technological floods, fires, hurricanes, tornadoes and earthquakes.

All events demand management and ICS is the best around.

Even without OSHA's mandate for scene management, ICS would be a good idea.

Rural needs differ from urban needs, rural realities demand modified ICS. Modified ICS is like initial attack.

Extended events call for extended ICS.

However, we must not forget they are sequential and rural responders might end their careers having used just modified ICS.

Changing Course
Tom Phipott

Every armed force has played a key role in our nation's response to the terrorism of Sept. 11, but no service stands to be changed more by that day, over time, than the U.S. Coast Guard.

Its commandant, Adm. James M. Loy, discusses those changes with Tom Philpott. Loy's comments have been edited for space.

What did the events of Sept. 11 do to the Coast Guard?

They had a dramatic impact, but they also showed the value of having in the nations's arsenal a multimission maritime service. Our ships, boats, helicopters, airplanes, and people are all multimission. All that my field commanders had to do was say, "Take a left and go to port security."

Folks in the midst of counternarcotics work, fisheries enforcement, (or) alien-immigration work refocused on what the nation needed. I was on the phone at 10 minutes after nine that morning with Secretary [of Transportation Norman Y.]

Mineta getting permission to exercise his domestic call-up authority. Over the next few days, we activated a third of our Selected Reserve.

The immediate issue for the Coast Guard was controlling the movement of what we call "high-interest" vessels so our ports couldn't be turned into targets.

The reracking of mission priorities is now very clear. Fifty percent to sixty percent of our operating expense now is maritime security; on Sept. 10, it was less than five percent.

Since Sept. 11, we have attempted to figure out both the value and vulnerability of our maritime sector. Today I am one-hundred percent convinced that among [potential] targets, ports and waterways are the most valuable and most vulnerable.

Why?

Our ports are responsible for up to $870 billion of our gross domestic product each year. Ninety-five percent of U.S. trade moves through our ports and waterways.

Besides that we have 95,000 miles of coastline, a 3.5 million square mile exclusive economic zone with oil wells, ocean minerals, [and] the bounty of the seas.

All of that is part of the nation's wealth. Responsibility for that lies fundamentally with us [as well as] with other federal agencies.

Do you have intelligence that terrorists plan to strike maritime interests?

Without divulging specifics, which are classified, there is no doubt in my mind that al-Qaida cells, and Osama Bin Laden personally, have had notions of maritime capability in their portfolio of nasty things to offer this country.

And, of course, they did attack the USS Cole in 2000.

The force-protection implications of that ---- for Navy, Coast Guard, and commercial assets worldwide ---- [are] very real.

How do you strengthen maritime security?

We have forged a five-goal scenario. The first is to maintain public confidence that the maritime sector is secure. The remaining four goals are more specific.

One is to control the movement of high-interest vessels like oil tankers, LPG (liquified petroleum gas) carriers, chemical and hazardous material carriers. Also cruise ships with their thousands of passengers.

And rogue vessels that, like jetliners, might be turned into weapons and aimed at an LNG (liquefied national gas) terminal or an aircraft carrier or an abutment of the Golden Gate Bridge.

Can you control all those vessels?

Not one hundred percent. There are not enough resources in the Coast Guard today. We have to use risk-based decision making to take the probable targets and weapons off the table. That's what's behind programs like sea marshals, which came out of San Francisco early on.

Coast Guard personnel meet ships at the sea buoy and validate everything on board - that people who are supposed to be in control are in control, that the crew matches the manifest. Ships now must give us 96 hours' notice, rather than 24, before arrival.

How far out do they board?

That depends on the geography of the port. In San Francisco, it's about fourteen miles west of the entrance to the bay.

Pilot boats carrying commercial pilots now also bring out Coast Guard petty officers to inspect. For some shorter runs, we actually will escort or establish a moving security zone around the vessel with Coast Guard utility and patrol boats.

Another goal is presence. It is enormously important to be much more visible to the American public and maritime world. There's value in that for both deterrence and response capability.

A fourth goal is to inventory critical infrastructure in ports and waterways and protect them. In this we relied on our instincts in search and rescue: "Send it all, then release what you don' t need."

We surged on Sept. 11 and now have settled back to what we call the "new normalcy," a higher security profile that must be sustained.

Our final goal is to reach out to anyone who can contribute to maritime security. That includes trade associations, port authority people, harbor pilots, and the chamber of shipping. The failure on Sept. 11 was one of awareness.

Over a decade of post-Cold War activity, we allowed our awareness of what goes on around us to dry up a little.

We have to put energy into that. It's about intelligence, keeping your eyes and ears open for things out of pattern.

If you're a fisherman on the Grand Banks and see something out of the ordinary, be conscientious enough as a citizen to pick up the radio and report it to the Coast Guard. If you're a pilot boat on your way out to a ship and you see something out of character, report that.

What new legal authorities do you need?

We already have authority to press on various regulatory issues.

We pushed through the notice-of-arrival regulation in three days, a record for D.C. Some others I'll mention are thoughts rather than actual plans. Fore example, we might want to mandate vessel and port facility security plans, which we would review and exercise.

Some facility security plans are in place, but most vessels focus on ship safety and environmental protection. We might add a security chapter.

Do you envision every LNG ship, for example, having armed personnel to protect the vessel?

Absolutely. And to the degree piracy is an issue in some corners of the world, we could have international standards. Eighty percent to eighty-five percent of ships and cargo we have to be concerned about [are] foreign-flag.

We have the same kind of security concerns for passenger ships and their terminals as we do for airports, with baggage checkers and the like. We could federalize some dimension of that work.

From an agency perspective, the most crucial goal is sharing information and fusing databases to have a fuller picture of what's happening. When a ship leaves Lisbon [Portugal] for Charleston [S.C.], it involves a vessel, its people, and its cargo.

The vessel piece we probably have more information on than anybody else. We might know, for example, that its previous port of call was Barranquilla, Colombia, a hot spot for the drug trade, and a red flag would go up.

If we were in a mature fused-database environment, however, we might also have INS (Immigration and Naturalization Service) or State Department information that the second mate and the third engineer have drug records.

From the U.S. Customs Service, we might learn they are suspicious of a container placed on the vessel at Barranquilla.

So now my guys, looking at the ten vessels coming to Charleston that day, would see three or four red flags instead of just the one and zoom in on that vessel as one to scrub good before we let it in.

How close are you to that data merge point?

As we speak, our Intelligence Coordination Center in Suitland, Md., is maturing its capability with terrific contributions from INS and the visa locker at [the State Department]. The container cargo piece is the "hole" in our maritime awareness. Sixteen thousand containers arrive daily, on average. Less than two percent do we actually open.

But it's a customs challenge. I want to be the first to support what they would need. It ought to be teed up as one of the most significant issues Gov. [Tom] Ridge (director of homeland security) is worried about.

Since Sept. 11, Ridge and some members of Congress have discussed merging the Cost Guard with other agencies responsible for border safety.

What's your reaction?

Retired Sens. Gary Hart and Warren Rudman, as the chairs of the [blue ribbon] commission, recommended that the Coast Guard, Customs, FEMA, U.S. Border Patrol, and INS be gathered together in a homeland security department.

Three things I say about that:

One, there are probably forty different agencies, including the FBI, you could associate with homeland security. Why those five? It's something to be thought through carefully.

Most important, Governor Ridge needs to be given time to sort out how he is going to get his arms around this [homeland security] monster.

Form should follow function. Let's get the functionality right first and then allow organizational implications to follow. Third, in the middle of a crisis is probably the worst time to reorganize.

What did Sept. 11 do to your other missions?

We took a lot of energy out of missions enormously importantly for the country, including those with national security implications.

We have backed away from our very significant contributions to the drug war at the worst time. It's quite clear that profits from illicit drug trade are a funding engine for international terrorism.

The same is true for illegal alien migration. We have got to be smarter than that.

So the Coast Guard needs to grow?

I've offered to Secretary Mineta a three-year game plan to build back to the size we were in 1993. From '94 to '98, we "streamlined."

I don't mean that in a positive way. We took more than four thousand people and four million dollars out of the annual capability of this organization. Now is the time to replace that. Homeland security is the mission du jour, and I don't challenge that.

But we must go back to those other national security missions as quickly as we can.

How would you resize the Coast Guard and its budget?

We're [about] 36,000 personnel today. The three-year plan would build us up to a little more than 40,000.

That's not only reasonable, but also it's mandatory to support what we're doing and need to do in the maritime sector. We're a $5.2 billion organization today.

Raising that by another half to three-quarters of a billion dollars a year is not out of the question.

How have you redeployed assets since Sept. 11?

We've doubled, tripled operating hours of coastal assets including buoy tenders, patrol boats, and utility boats.

We've relocated many from stations, as we enter the winter boating season, to augment assets in ports and harbors.

We activated our six port security units-mostly reserve manned-and deployed them to important ports like New York, Boston, San Diego, and Puget Sound (Wash.).

Other reservists are augmenting in a pre-orchestrated manner, joining teams and group offices, adding to their competency, man-hours, and capability.

All those added harbor patrols do not come free. Until we can backfill the active duty assets-literally recruit new sailors and get them there-we will have to have a lengthy reserve augmentation to hold on to this higher security profile.

You visited the ruins of the World Trade Center. Can you share you impressions and what that might have done to your resolve?

I've worn this uniform for more than forty years. I've been to Vietnam. I've gone through many crises for the nation.

It does not take much to kindle my resolve.

But I can tell you I have never been moved more personally, with perhaps the exception of the birth of my children, [than by] what I witnessed in south Manhattan.

I have a picture of it here, on my wall, which I see every time I go out my door. I want it there for the balance of this challenge to remind me hour by hour, minute by minute, what has been done to our nation.

This article was reprinted from The Retired Officer Magazine courtesy of Tom Philpott.

New CAMEO Version ... CAMEOfm IS NOW AVAILABLE!

CAMEO is a suite of software programs you can use to plan for and respond to chemical emergencies.

It was developed for chemical emergency planners and responders by the CAMEO team.

This team includes the U.S. EPA's Chemical Emergency Preparedness and Prevention Office (CEPPO) and NOAA.

CAMEO includes a set of databases, or modules, a toxic gas dispersion model called ALOHA, and an electronic mapping program called MARPLOT.

CAMEOfm, ALOHA, and MARPLOT can be downloaded from the EPA website - www.epa.gov/ceppo.

What's New?

Changes:

- NEW DATABASE PROGRAM:

  This version runs in FileMaker while the previous versions were developed in HyperCard on the Macintosh and in FoxPro for Windows.

  The new version is identical on both Macintosh and Widows computers.

  It is similar to previous versions of CAMEO for Windows.

- SEARCHING:

  CAMEOfm includes a single search module that you use for all searches.

  You can run either a basic or advance search.

- CROSS-PLATFORM LOOK AND FEEL:

  CAMEOfm now looks and acts almost identical for both Windows and Macintosh.

Additions:

- Chemical Reactivity Prediction:

  In CAMEOfm you can predict potential reactivity between two or more chemicals if they are mixed together.

  This is the same functionality that is available in the chemical reactivity worksheet.

What's Been Left Out?

- SITE PLAN VIEWER:

  This component has been left out of the new version, but you can use any graphics program to create site plans, save them in any standard graphic file format, and then include them with your facility records in CAMEOfm.

- CENSUS DATA:

  Census data has been removed since you can use LandView when needing to analyze demographic data.

- TRI:

  TRI can be utilized in LandView or online at the Toxics Release Inventory: Community Right-to-Know Home Page.

- PASSWORD PROTECTION:

  CAMEOfm no longer requires the use of passwords; however, you can create passwords with your copy of CAMEO if you like.

- MARPLOT:

  Has been upgraded to ver 3.3.

ALOHA has not been changed.

You can download users manuals for CAMEOfm, ALOHA, and MARPLOT from the EPA website - www.epa.gov/ceppo

Jim Makris - Director of EPA CEPP Office Announces His Retirement!

Jim Makris joined the EPA in 1985. He is the Director of the CEPP Office in the office of Solid Waste and Emergency Response of the EPA .

He is a graduate of the University of New Hampshire, where he studied business, and George Washington University, where he earned a law degree. Mr. Makris has spent much of his professional life in emergency management.

He has held management positions in the Office of Emergency Preparedness, the Department of Housing and Urban Development, the Federal Disaster Assistance Administration, and FEMA. Mr. Makris oversees the development and implementation of all chemical accident preparedness and prevention programs.

He has lead an effort to reduce the likelihood and severity of chemical accidents as well as reduce environmental risks in general.

Mr. Makris has also played a pivotal role in the augmentation of the CAA, Section 112(r), which includes provisions for industrial facilities to develop plans for managing the chemical risks associated with their operations and to implement those plans.

He is credited for establishing and implementing a program to investigate significant chemical accidents. Mr. Makris holds several emergency response related leadership positions within the EPA.

He is the EPA's Emergency Coordinator and Chairman of the National Incident Coordination Team (NICT) - a multi-office team that coordinates the EPA activities during national and international environmental incidents.

He has served 10 years as the Chair of the NRT - a organization of 15 federal agencies responsible for coordinating federal planning, preparedness, and response actions.

Internationally, Mr. Makris coordinates all joint prevention and preparedness efforts with Mexico and Canada as well as co-chairs the U.S./Mexico and U.S./Canada Joint Response Teams.

Additionally, he has been instrumental in ensuring coordinated, non-duplicative efforts worldwide in the area of chemical emergency prevention and preparedness through his constant and concerted efforts with the European Community and International organizations such as the Organizatin for Economic Cooperation and Development (OECD), the United Nations Environmental Program (UNEP), and the UN Economic Commission for Europe (UNECE).

2002 EPA Partnership Award Winners

One of the highlights during the closing luncheon of the 2001 EPA CEPP Conference in Baltimore, MD was the presentation of the EPA Partnership Award to individuals and organizations.

EPA Region III has been presenting these awards to those who demonstrate creativity and innovation in chemical emergency preparedness and preventions. The following were a few of several that received awards.

Iberville Community Awareness & Emergency Response Committee and Iberville Parish LEPC

The Iberville (Louisiana) CAER and LEPC organizations have effectively worked together for more than 14 years.

This "winning combination" has produced several significant projects including introducing 600 kindergarten students a year to Safety Town and publishing an emergency preparedness handbook which is distributed to every household and businesses in the Parish.

Community warning and notification has also been improved through an innovative system.

S.H. "Jackie" Jackson of Iberville Emergency Preparedness in Louisiana partnered with local industry to develop E-Notify --a computerized emergency notification system.

Within one minute of a reported incident, the state-of -the-art system allows OEP/911 to activate outdoor warning sirens, cable TV override, computerized telephone ringdown systems, and AM radio stations.

Michael A. Gonzalez

When responding to a chemical spill, quick and decisive action should not be impaired for any reason - including geography. Mike Gonzalez addressed the need to create the "Bi-National Sister City Program", which allows the movement of U.S. equipment and personnel across the Mexican border in the event of an emergency.

The program has lead to better communication between U.S. and Mexican officials, lessening the impact of bureaucracy that impeded response efforts in the past.

Pocket Plan Available On Internet

Bill White, Kanawha County (West Virginia) Emergency Services Director, has placed his “Pocket Plan” program on the Internet; it can be downloaded from wwyw.kancocomm.com/emergency/pocketplan.zip.

(The zipped file is 37MB so you will need sufficient disk space to download the entire program.)

The program is Windows 95, 98, and 2000 compatible.

Bill presented his Pocket Plan concept at the EPA Region III Conference in 1999.

Many who attended Bill‘‘s workshop requested a copy, and Bill has been working to fine-tune the program and find the best way to make it available to all those interested.

Kanawha County is divided into 32 fire districts based on the fire departments’ response plan that can be customized to meet the needs and provide information for each of the 32 fire districts when they respond to an incident.

Bill can be reached at Firetrbill@aol.com.

School Safety Checklists Available

A popular workshop at the 2001 Conference was the School Safety Program put on by Steve Harris of the Georgia Emergency Management Agency.

In 1999, Georgia passed legislation directing the Georgia Emergency Management Agency to provide training and technical assistance on the issue of school safety to the education, emergency management, and public safety communities of Georgia.

As the School Safety Project Manager, Steve provides training in the areas of emergency operations, planning, crisis response, bomb threat management, visual weapons screening, and site-based threat assessments.

Warning from the Hazmat Community

I would like to give the group, and especially responders, a heads up on abandoned propane cylinders.

I our area, and I assume this is going on nationwide, 20 lb propane cylinders like the kind used on home bbq's are being used in the manufacture of methamphetamine.

These cylinders are being used to steal and transport anhydrous ammonia.

These cylinders and especially the brass fittings were never made to handle anhydrous ammonia.

The anhydrous ammonia will react with the brass valve and turn it a blue after just one use.

The smart (?) Meth manufactures know to only use the cylinders a couple of times and then they abandon them for us to find.

We have found cylinders with product still in them.

If the cylinder has been used too often the cylinders valve can fail catastrophically without warning. This can be a real problem if you don't have on proper PPE.

This is such a problem in our area that we don't approach an abandoned cylinder without level B and SCBA.

As always, treat an abandoned container with the caution it deserves.

Dave Graves, Defense Threat Reduction Agency
ATTN: CSEM (WMD Emergency Management Branch), Consequence Management Advisory Team (CMAT)
Alexandria, VA 22310-3398
703-325-7079/7146(STU) dgraves@cnttr.dtra.mil

Hazardous Materials Education: Carbon County, Pennsylvania LEPC

Purpose:

The Carbon County, Pennsylvania, Local Emergency Planning Committee has developed educational programs to involve area school students in hazardous material issues.

LEPC members have a philosophy that if the children in the community are continually learning about chemical accident prevention and emergency preparedness, their parents will become involved as well.

Led by a local television anchor who is a member of the LEPC, the committee has worked with the local school system to develop programs to educate students and teacher on how to shelter in place and other emergency procedures.

Framing the Message:

The LEPC realized that it was important to explain to teachers and students why chemical release emergencies differ from natural hazard emergencies, such as tornados and floods, and why safety procedures may differ.

Equally important was ensuring that students knew the proper safety procedures to follow for evacuation and shelter-in place in the event of a chemical accident.

Knowing it was also important to educate students as to why shelter-in-place is advantageous in some situations, during a classroom session, LEPC members blew large soap bubbles over the students to show how the quickly the wind can spread chemicals and why evacuation may not always be an option.

Students also learned that evacuation and shelter-in-place are not interchangeable safety measures and when emergency management officials determine appropriate action for the incident, they should follow those directions implicitly.

Next, families learned what they would need to do in their home if they got the message to shelter-in place to keep contaminated air from entering doors and windows and how to protect themselves during a chemical release.

The LEPC and 11 area companies sponsored a logo contest that culminated in a calendar using the art work of students.

The calendar contained emergency contact telephone numbers, LEPC information and detailed instructions on what steps to take should an accident occur.

Students from throughout the county were asked to draw pictures describing what people should do if a chemical accident occurred.

Twelve winners were chosen and their artwork was featured in the calender.

Community residents received a free calendar and the calendar was shared with other Pennsylvania LEPCs.

Funding:

Each of the 11 companies paid $100 fee to place an advertisement in the calender.

The LEPC also used some of the funds garnered from annual fees paid by companies that must comply with the state right-to-know law

(Note: The county requires facilities to pay annual fees that range from $35-75 per chemical for filing Tier II reports and $100 from each facility for which EPCRA requires an emergency response plan).

Safe Storage and Handling of Swimming Pool Chemicals
EPA 550-F-01-003 March 2001

Problem:

Pool chemicals may become a hazard when they become wetted by a small quantity of water or when they are improperly mixed, such as with other chemicals or reactive materials.

Although the potential hazards of swimming pool water treatment and maintenance chemicals, also referred to as “pool chemicals,” have been recognized for some time, news media reports over the last five years still show a significant number of fires, toxic vapor releases, and personnel injuries in which pool chemicals were a factor (See Table 1).

A number of the pool chemicals, especially those exhibiting oxidation properties, can potentially be highly reactive and capable of generating high temperatures, as well as releasing toxic vapors if improperly handled or stored.

Reactivity may be triggered by water wetting the chemical, or by the inadvertent mixing of a pool chemical with an incompatible material.

Some pool chemicals are self-reactive over time, even without moisture addition or mixing with other materials.

The products of this decomposition may include chlorine gas which may cause the corrosion of piping and other metal equipment in poorly ventilated areas. These chemicals are packaged in “breathable” containers to avoid pressure buildup while in storage.

A partial listing of pool chemicals includes chlorinated isocyanurates, lithium hypochlorite, sodium bicarbonate, potassium monopersulfate, hydrogen peroxide, sodium hypochlorite, calcium hypochlorite, and certain ammonium, brominated, copper and silver compounds, and muriatic acid.

Pool chemicals involved in fire or toxic vapor release are likely to include those that add chlorine or a chlorine ion to the pool water for bacterial control.

Chemicals that release chlorine are among the group of chemicals that are classified as *oxidizer*s. These pool oxidizer chemicals include calcium hypochlorite, sodium hypochlorite, and chlorinated isocyanurates. Other pool chemicals are used to control the growth of algae or fungus, to adjust the acidity or alkalinity (pH control), and to clarify pool water.

Large, nonresidential pools may use chlorine stored as a liquid under pressure in metal containers. The Chlorine Institute, Inc. and the Occupational Safety and Health Administration (OSHA) provide guidance on the operation of pressurized chlorine systems (see Information Resources section of this *Alert*).

Hazard Triggers:

The purpose of this *Alert* is to provide guidance associated with normal operating conditions and routine tasks for storage and handling of pool chemicals. It does not address the precautions to be taken by first responders in case of a fire, a large spill, or the release of toxic vapors.

Wetting:

Under normal circumstances, pool chemicals are intended to be added to large quantities of water. If, instead, a limited volume (amount) of water is added to a chemical, an unwanted reaction may occur, resulting in an increase in temperature and the release of toxic gas.

Even a small amount of water splashed on the chemical may in some cases trigger a strong reaction. The main exception to this rule concerning water addition is when very large quantities of water are needed for fire fighting, as discussed below.

Although the chemicals are usually packaged in plastic bags that are stored in sturdy cartons or drums, accidents have occurred when water leaked into damaged or open containers.

Possible sources of water entry have been traced to:

- Rain water from a roof leak or from an open or broken window;
- Wet floor when the stored chemicals were not elevated off the floor;
- Leakage from fire suppression sprinkler system; or
- Hose-down water generated during area cleanup.

There are other sources of water that may come in contact with pool chemical packages, including high humidity in summer weather. However, the effects of humidity are more likely to be slow-acting, with the rate of temperature buildup and chlorine gas release being less severe.

Chlorine is corrosive to metals such as steel and copper. Instances have been reported where exposed water piping has become corroded causing leaks, and also where metal storage shelves have corroded and collapsed, leading to chemical spillage.

Improper Mixing:

The most common pool chemicals are inherently incompatible with each other. Intentional or accidental mixing of incompatible chemicals is likely to lead to a chemical reaction that may generate temperatures high enough to ignite nearby combustible materials.

Mixing can also lead to the release of highly toxic and corrosive chlorine gas. Reactions have also been traced to the mixing of old (partially decomposed) and new chemicals of the same type.

The mixing of pool chemicals with completely unrelated materials such as swept material from the floor, oily rags, and other miscellaneous materials have been known to cause strong reactions with the potential for a resulting fire. Improper chemical mixing incidents have occurred when:

- Tools and equipment used to handle one chemical were used with a different chemical before being cleaned;

- Spilled substances (e.g., from damaged containers or from sloppy handling) and other miscellaneous substances on floors were swept up together and mixed; and

- Containers, residues, or wastes are disposed resulting in inadvertent mixing in disposal containers or at waste disposal sites.

Liquid chemicals, such as sodium hypochlorite (bleach), if spilled, can leak into other containers or seep into cracks in the floor. Liquids, because of their properties, can create hazards not associated with solid or granular products and must be carefully handled.

Hazard Control: Facility management is responsible for knowing and understanding the hazards associated with these chemicals and ensuring that pool chemicals are safely stored and handled.

Hazardous substances are capable of being safely handled day-after-day through a management system that ensures that good, written procedures are prepared, posted, and followed by trained employees.

Also, the facility needs to be properly designed and maintained. Finally, facility management should very carefully plan for emergencies and work with first responders to mitigate incidents that occur. Recommendations for addressing the major hazards associated with pool chemicals are described below.

Keep Pool Chemicals Dry.

Facility management should design and maintain designated areas for pool chemical storage so that water does not come in contact with containers or packaging. Any evidence of potential water entry from the following possible sources should receive prompt corrective attention:.

- Roof, windows, and doors;
- Wall and floor joints;
- Water pipes or hoses and sprinkler systems; and
- Drains.

You should look for ways to prevent water contact with stored pool chemicals such as:

- Close containers properly;
- Cover opened or damaged packaging;
- Store chemicals away from doors and windows;
- Ensure that there are no roof leaks, open or broken windows, or leaks from water pipes, hoses, or the sprinkler system;
- Ensure that floors are sloped to keep water drained away;
- Store chemicals on shelves or pallets to keep containers off the floor;
- Use waterproof covers on packaging;
- Exercise particular caution to prevent water contact with stored chemicals any time water is used for cleanup of floor areas near stored packages; and
- Ensure that water will not back up from faulty or clogged floor drains.

Avoid Chemical Mixing.

You should conduct a review of chemical storage arrangements and chemical handling tasks to identify situations where chemicals could be intentionally or accidentally mixed:

- Separate incompatible substances; avoid storing containers of liquids above containers of other incompatible substances;

- Do not mix old chemicals with fresh chemical, even if they are the same type;

- Consider separate, designated tools for each chemical. Handle only one chemical at a time and make sure that tools used with one substance are not used with another unless all residues are removed;

- Use separate, designated containers for cleanup of spilled materials to avoid inadvertent mixing of spilled substances. Consult your local hazardous waste disposal facility for more detailed information on proper waste disposal; and

- Make chemical storage area housekeeping a priority. Don't allow rags, trash, debris, or other materials to clutter hazardous material storage area. Keep combustible and flammable substances away.

For storage and handling of large quantities, see the American Chemistry Council (formerly the Chemical Manufacturers Association) *Guidelines in the Safe Transportation, Handling, and Storage of Dry Chlorinated Pool Chemicals -2001* listed under the Recommended Reading section of this *Aler*t, for guidance on stack height and separation of different chemical types and separation of oxidizers from combustibles.

Fire Prevention.

Facility management should prevent a chemical reaction ignition by avoiding wetting or mixing chemicals as described above. Avoid having combustible or flammable materials near the chemicals, particularly gasoline, oil, paint solvents, oily rags, etc.

Do not allow ignition sources, such as gasoline, diesel, or gas powered equipment such as lawn mowers, motors, or welding machines, in the storage area. Also, do not allow smoking in the storage area. Review bulk storage, including packaging and storage locations, relative to potential for accidental contact with water, including sprinkler systems, rainwater, etc.

Emergency Response and Fire Fighting.

Facility management should work with local first responders (fire departments, emergency medical teams) and the LEPC on emergency response and fire fighting. LEPC contact information can be found at the website listed in the Other Useful Websites section.

The Recommended Reading section provides sources of information on fire prevention and fire fighting associated with pool chemicals. Note also that once started, fires involving pool chemicals are difficult to attack. Keep in mind that:

- Do not use dry chemical or halon-type fire extinguishers where chlorine gas may be

evolving. These agents react negatively with chlorine.

- In extinguishing a fire, only large volumes (copious flow) of water should be applied and then only by persons trained in chemical fire response. Caution must also be exercised to protect against wildlife damage due to contaminated water runoff.

- Large quantities of water should be applied to the burning combustibles to remove heat and for fire intensity control.

- Once started, the reaction of wetted or mixed chlorinated pool chemicals may continue generating heat, unless the material is cooled below its heat of reaction temperature or until all chlorine is used.

Protective Measures

Pool chemicals can cause injury if they directly contact a person's skin, eyes, or respiratory or digestive system. The chemical will immediately react when wetted by perspiration, tears, mucus, and saliva in the nose, throat, and respiratory and digestive systems.

Such injuries may occur from direct chemical contact with the skin or if chemical dust in the air contacts eyes, is inhaled, or settles on food that is consumed.

Protect Employees from Exposure.

Consult the chemical manufacturer's safety instructions as well as the Material Safety Data Sheets (MSDSs) for guidance on the appropriate personal protective equipment (PPE) necessary to protect your employees.

Also, share MSDSs with local emergency medical responders and practitioners. The following protective measures address conditions that may arise during normal operations or the execution of routine tasks. If, however, additional information is needed for fire, spill, or release intervention, we suggest that you contact the LEPC (see Other Useful Websites).

See that PPE is kept clean, in proper operating condition, and available for use when needed and that the following practices are observed: Use basic PPE including, as a minimum, chemical goggles and liquid impervious gloves, and boots for any chemical handling activities.

For frequent or extended chemical handling activities, add a face shield and liquid impervious apron or coveralls to the basic PPE.

As a minimum, use a National Institute for Occupational Health and Safety (NIOSH) approved air-purifying respirator, when airborne chemical dust or mist may be present. 29 CFR 1910.134 Respiratory Protection covers the OSHA requirements for respiratory protection.

For additional information on proper selection and use of PPE, consult the OSHA regulatory standards. In addition:

- Consider development of work practices to minimize dust generation and accidental contact with pool chemicals;
- Provide a means of ready access to water (e.g., safety showers, eye wash stations, etc.) for removal of chemicals that may accidentally contact employees;
- Consider appropriate first aid and coordinate with local first responders and medical professionals for treatment of accidental exposure until professional medical treatment can be provided;
- Avoid accidental ingestion by storing and consuming foods and beverages away from chemical storage and handling locations, and ensure that employees wash before eating, drinking, etc.; and post the numbers for the local emergency responders, and medical practitioners that are familiar with the appropriate treatment for the chemical present.

Table 1 Recent Incidents Involving Swimming Pool Water Treatment Chemicals

Month / Yr	City / State	Brief Description of Incident Effect
February 2000	Elizabethtown, Tennessee	Fire and smoke from a storage facility that contained chemicals including swimming pool water treatment chemicals. The fire was in an area isolated from the pool chemicals, however particular precautions were taken to prevent the pool chemicals from becoming involved. Local school closed early to relieve traffic congestion; local residents advised to remain indoors. No injuries reported.
October 1999	Avon, Indiana	Fumes released from container of a strong acid that was being used to clean a high school swimming pool. School evacuated. No injuries reported.

August 1999	Burlington, New Jersey	A pallet containing 400 lbs of calcium hypochlorite spilled at a warehouse. The spill was caused by the corrosion of steel shelving on which the material was stored. The spilled material mixed with other incompatible materials, resulting in fire and release of products of combustion and decomposition including chlorine gas. Five warehouse workers were hospitalized from the toxic gas exposure. Twenty- four others were treated and released.

August 1999	Bergen County, New Jersey	Granular chlorinating material, similar to that used for swimming pool water treatment, spilled while moving a container in a warehouse. Released vapors sent 28 government workers to area hospitals.
July 1999	Richmond, VA	Chemical exploded as it was prepared for release into apartment complex pool. One employee injured.
June 1999	Cleveland, Ohio	Toxic fumes released at local community center swimming pool, when pool water chemicals including muriatic acid were inadvertently mixed. Two fire fighters and two others injured and area evacuated.
February 1999	Fort Worth, Texas	Fire, smoke and vapors released from large warehouse containing pool chemicals and other materials. The cause of the fire was not reported. Warehouse destroyed. No injuries reported; residents told to remain indoors.
December 1998	Auburn, New Hampshire	Small explosion and vapors were released when about a cup of swimming pool chemical was improperly disposed of at a regional waste treatment station. Four minor injuries. Waste treatment station shut down.
July 1998	Dayton, Ohio	Toxic cloud was generated when muriatic acid was inadvertently mixed with a chlorinator product at local community center swimming pool. Nine people sent to the hospital.
June 1997	Watervleit, New York	Water leaking from sprinkler system wetted water reactive pool chemicals, starting fire at pool chemical storage, repackaging and distribution building. Smoke and chlorine gas released into building and area. Nearby residents evacuated as a precautionary measure.
July 1996	Chatsworth, California	Fire and toxic vapor release at a swimming pool supply facility was attributed to improper mixing of muriatic acid and sodium hypochlorite (bleach). Three people were injured and an eight-block area was closed to traffic.

Tier II Submit Factsheet
EPA 550-F-01-004 April, 2001

What is Tier II Submit?

Tier II Submit is the free personal computer software being developed by EPA and NOAA for use by facilities in submitting Tier II reports in states where this software meets state reporting requirements.

Tier II reports required under the Emergency Planning and Community Right to Know Act (EPCRA) provide information to state and local officials and the public with specific information on certain chemicals that are present at facilities during the previous calendar year.

Tier II Submit will:

- contain all of the data elements required by federal EPA regulations, optional data elements which are commonly required by states, and also blank data fields to accommodate additional data elements required by individual states
- help facilities avoid common reporting errors by verifying that all required data elements are completed
- allow facilities to correct errors prior to submission
- work on most PCs, yet have the capacity to enter multiple facilities for a company and enter numerous chemicals for each
- have the ability to copy a report from the previous year
- work seamlessly with CAMEO
- replace Tier II for Windows, currently distributed by EPA.

Have states been consulted about this new software?

The National Governor's Association (NGA) hosted an Electronic Tier II Reporting System Forum on January 31, 2001 to assist EPA in addressing issues related to electronic reporting.

Participants included representatives from Massachusetts, Michigan, Wisconsin, Iowa, Missouri, Oklahoma, Arizona and Washington.

Discussion explored the feasibility of both web-based and PC- ased systems.

All agreed that any new system should be highly compatible with CAMEO and other popular databases.

What about states that already have an electronic submission system in place?

Tier II submit is not a mandatory reporting tool. Rather, each state will continue to specify the reporting format requires for reporting.

EPA will provide/link to information on the CEPPO website about individual state reporting requirements.

However, Tier II submit can be used by states to complement their systems.

When will Tier II Submit be available?

EPA and NOAA are working to make the software available December, 2001, so facilities can use it to submit reports due on March 1, 2002.

States will want to know about progress along the way so they can adjust their reporting packages.

EPA will use its List Serve and the CEPPO website (www.epa.gov/ceppo) to keep everyone informed.

Dissemination of LEPC Information

Since the events of September 11, all of us have had to consider and reconsider where community right-to-know provisions fit into the new heightened awareness toward terrorism.

EPA Region 6, and I am sure all of our States, have received numerous phone calls from LEPCs around Region 6 asking what are their obligations under SARA Title III (EPCRA) for disseminating information collected (Tier II forms, MSDSs, community emergency plans).

We can easily understand the concerns expressed by LEPC members with recent events still so fresh, and the continuous warnings of increased vigilance among all of us.

First, let's review what the EPCRA statute and regulations have to say on the matter.

SARA Title III (EPCRA)
Section 301
(c) Establishment of local emergency planning committees

... The local emergency planning committee shall establish procedures for receiving and processing requests from the public for information under section 11044 of this title, including tier II information under section 312 of this title.

Such procedures shall include the designation of an official to serve as coordinator for information.

Section 311
(c) Availability of MSDS on request
... (2) To public

A local emergency planning committee, upon request by any person, shall make available a material safety data sheet to the person in accordance with section 324 of this title.

If the local emergency planning committee does not have the requested material safety data sheet, the committee shall request the sheet from the facility owner or operator and then make the sheet available to the person in accordance with section 324 of this title.

Section 312

(3) Availability to public

(A) In general

Any person may request a State emergency response commission or local emergency planning committee for tier II information relating to the preceding calendar year with respect to a facility.

Any such request shall be in writing and shall be with respect to a specific facility.

(B) Automatic provision of information to public

Any tier II information which a State emergency response commission or local emergency planning committee has in its possession shall be made available to a person making a request under this paragraph in accordance with section 11044 of this title.

If the State emergency response commission or local emergency planning committee does not have the tier II information in its possession, upon a request for tier II information the State emergency response commission or local emergency planning committee shall, pursuant to paragraph (1), request the facility owner or operator for tier II information with respect to a hazardous chemical which a facility has stored in an amount in excess of 10,000 pounds present at the facility at any time during the preceding calendar year and make such information available in accordance with section 324 of this title to the person making the request.

(C) Discretionary provision of information to public

In the case of tier II information which is not in the possession of a State emergency response commission or local emergency planning committee and which is with respect to a hazardous chemical which a facility has stored in an amount less than 10,000 pounds present at the facility at any time during the preceding calendar year, a request from a person must include the general need for the information.

The State emergency response commission or local emergency planning committee may, pursuant to paragraph (1), request the facility owner or operator for the tier II information on behalf of the person making the request.

Upon receipt of any information requested on behalf of such person, the State emergency response commission or local emergency planning committee shall make the information available in accordance with section 324 of this title to the person.

(D) Response in 45 days

A State emergency response commission or local emergency planning committee shall respond to a request for tier II information under this paragraph no later than 45 days after the date of receipt of the request.

Sec. 324. Public availability of plans, data sheets, forms, and followup notices
(a) Availability to public

Each emergency response plan, material safety data sheet, list described in section 321(a)(2) of this title, inventory form, toxic chemical release form, and followup emergency notice shall be made available to the general public, consistent with section 312 of this title, during normal working hours at the location or locations designated by the Administrator, Governor, State emergency response commission, or local emergency planning committee, as appropriate.

Upon request by an owner or operator of a facility subject to the requirements of section 312 of this title, the State emergency response commission and the appropriate local emergency planning committee shall withhold from disclosure under this section the location of any specific chemical required by section 312(d)(2) of this title to be contained in an inventory form as tier II information.

(b) Notice of public availability

Each local emergency planning committee shall annually publish a notice in local newspapers that the emergency response plan, material safety data sheets, and inventory forms have been submitted under this section.

The notice shall state that followup emergency notices may subsequently be issued. Such notice shall announce that members of the public who wish to review any such plan, sheet, form, or followup notice may do so at the location designated under subsection (a) of this section.

EPA Region 6 recommends the following to each LEPC within our Region:

- First, review your current LEPC and practices and policies on dissemination of information to the public.

- Check with your State LEPC Coordinator for advice on how the State Open Records Act applies to your information collection and dissemination.

- Understand that the basic tenets of community right-to-know has not changed. We still believe that legitimate needs for chemical information by the public should be honored and provided.

- Each jurisdiction must determine what procedures are right for their particular situation. However, after surveying many LEPCs, three particular practices consistently appeared, and thus make solid recommendations.

  - As the law requires in most instances, establish that requests for information be in writing.

  - Establish that the individual requesting the information provide proof of identification before receiving the information, possibly in person at the repository.

  - Provide request information to local law enforcement authorities, as appropriate.

- Many LEPCs require the requestor to come to the repository of information; they do not provide the information through the mail or internet. That is a decision that must be made by each LEPC, again depending on how your State Open Records Act affects your practices.

We also suggest that those LEPCs that have a website review what information they have residing on that site, and determine if any changes should be made, in light of increasing security concerns.

Please remember that we in the Regional Office, as well as your State Coordinators want to help you any way that we can.

Do not hesitate to call your State Coordinator for guidance or questions.