THE CHEMICAL TRANSPORTATION EMERGENCY SYSTEM OF THE USA

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Today I would like to tell you about the Chemical Emergency Response System in the United States, to explain how it is put together, how it operates and what makes it work. Then in the remaining time, answer any questions you may have concerning this system.

In 1970, with the encouragement of the United States Department of Transportation, the Chemical Manufacturers Association (CMA) created CHEMTREC, the Chemical Transportation Emergency Center. Funded solely by CMA, CHEMTREC, through its single telephone number, provides information and assistance to those responding to chemical emergencies.

CHEMTREC operates on a two-step basis. First, the caller identifies the product involved and the communicator provides information on how to handle the problem. Second, the communicator contacts the shipper or other source of expertise for additional telephone advice and/or assistance.

The initial call to CHEMTREC is usually made by a fireman, a policeman, a truck driver, or a member of a train crew. The CHEMTREC communicator makes a detailed record of the incident, including the callers name and a call back phone number. When the essential information has been received, the communicator relays prerecorded emergency response information to the caller. CHEMTREC's files include physical characteristics of the

material, data on the general nature of the products and information on how to handle, spill, leak, fire or exposure.

Once the communicator has given this information to the caller, he immediately contacts the company who's material is involved. This is done either directly by telephone, or through a teleprinting link-up that transmits a "hard copy" of the report. This "hard-copy" system has advantages because it eliminates problems of improper spelling, mixed up phone numbers and delays that can occur with telephone transmission. The "hard copy" is sent to dedicated telephone numbers at the company sites.

By making this call, the communicator turns the problem over to the shipper. Under certain circumstances, this call may go to a mutual aid team, such as those operated by the Chlorine Institute or the National Agricultural Chemical Association. In these incidents, the team nearest the accident scene may be called for assistance.

There are also mutual assistance groups that handle specific products, such as Hydrogen Cyanide, Vinyl Chloride, Hydrogen Fluoride, Phosphorus or Liquidfied Petroleum Gas (LPG) products. CHEMTREC will call the U. S. Department of Energy and State Radiological Emergency Response Groups for assistance with incidents involving radioactive material. They also contact the U. S. Department of Defense for military shipment incidents.

The Transportation Act of 1974 required the Department of Transportation to establish a single telephone contact for reporting spills or leaks of hazardous substances. In 1980, CHEMTREC, because of excellent past performance, was designated to be that single contact.

When a call is received from CHEMTREC by a chemical manufacturer, the Emergency Response system of that manufacturer goes into action. Each company's E/R system is designed to meet their needs. Some systems are very elaborate, others very simple. As an example, the call may come into a central plant security dispatch center. Here dedicated equipment and designated people are available to respond. The equipment is mobile and contains safety equipment, specialized tools and miscellaneous related items. When on site, this equipment is used by the company's trained Emergency Response Team. These company emergency response teams and the mutual aid teams are sent to the incident site to assist the public safety people on the scene. They are not there to be the people-in-charge.

The concern about pollution of water and air has changed the method of handling spills. We no longer use water to flush spills down the drain. All spills are confined and picked up for disposal.

Incidents can and do occur at places that are very remote and during adverse weather conditions. At these times, the emergency response teams are required to use all means possible to reach the incident and minimize the effects on the general public. An incident may happen in a populated area, on a highway, on board ship, barge, and in rail yards.

Training of public safety people to handle a chemical emergency incident is very important. It is my belief that this training should be designed for the needs of the trainees. What does the job require that person to know and do? I feel there are three levels of training necessary: one for first responder; second, the decision maker; third, for the special team. All police and fire fighters should receive the first responder training, which is how to safely approach an incident, how to identify what's involved and how to communicate accurately what's happening.

In the United States, we have begun the first responder training; I say only begun, because of personnel turnover it must bè repeated every year. The Chemical Manufacturers Association and the American Association of Railroads produced and promoted this training program. They have since turned it over to an U. S. Agency for further presentations and updating. In addition, there are chemical companies, railroads and individuals who have also developed training programs.

Advanced training programs for the decision makers or special teams are also available. The one I'm most familiar with is offered by Texas A&M University. It is recommended by CMA and it is an excellent program.

In 1980, the U. S. Department of Transportation published an Emergency Response Guidebook. A new 1984 addition is now available. This guidebook is an attempt to provide a single quick reference to the first responder so that once it has been determined what material is involved, certain immediate actions can be started. If evacuation is required, the first responder can secure the area and begin to evaluate any people present.

The DOT Guidebook lists all materials on the U. S. list of hazardous materials or hazardous substances. The materials listed have been assigned a four digit identification number. The identification number is preceded by either the letters UN or the letters NA.

The UN prefix is for those materials assigned number by the United Nations list of dangerous goods. The NA prefix is for materials regulated in the U.S.

Next, each material is assigned a guide number. This guide number refers to a prepared sheet that lists the potential hazards of the material and the emergency action to be taken to assure public safety in the event of spill, leak, fire or exposure.

As I mentioned before, this guidebook has been revised - the 1984 edition is now available. This is an excellent reference to have in the hands of every person who is likely, as part of their job, to become involved in an chemical emergency. The statements are simple one-liners and can be easily translated into other languages. This guidebook is the result of a good cooperative effort of chemical industry and the Department of Transportation.

The chemical emergency response system in the United States is working and beginning to work even better because certain essential elements are in place.

First, we have the regulations that govern transportation of hazardous materials. These regulations establish a competent authority, list minimum packaging requirements and outline the labeling and placarding requirements so that a material and its hazards may be adequately identified. This assures a material is handled safely during normal transportation or in an emergency.

These regulations require that hazardous materials be identified on all shipping papers. The identification number, including the UN or NA prefix shall appear on all shipping papers and the required placards have the four digit identification number on them.

The United Nations recommendations are a very good starting point for establishing this type of regulations in your own country.

Second, we are improving the enforcement of the regulations by encouraging the enforcement at the lowest level possible, where adequate training and supervsion can be provided. This is generally at the state level. However, we do have federal audits of hazardous material shippers. This has led to:

Third, improved compliance by the shippers. Compliance is encouraged by making non-compliance unattactive through the use of citations and fines. Repeat offenders become the target for stricter enforcement.

Fourth, making available aid and assistance to state and local governments. This may be in the form of grants for training, training programs and printed literature. Example, the E/R Guidebook.

We in the United States have been fortunate during the past ten to fifteen years that there has developed a feeling of trust and cooperation between the chemical industry and the Department of Transportation. This has made it possible for us to develop CHEMTREC, The Department of Transportation Emergency Response Guidebook, the Chemical Manufacturers Association, Association of American Railroads training programs, the CMA Emergency Response Workshops and the Texas A&M Training Programs. Any one of these programs is available to you to copy or learn from.

There are very good programs and aids in other countries. Many are available for the asking or may be purchased. I would suggest you do not try to reinvent the wheel. Use what others have learned. Adapt ideas to meet your own needs.

Thank you for this opportunity to be with you and I will now try to answer any questions you might have.