

CHEMTREC®'s role in hazardous materials emergency response*

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Abstract

There is an increasing expectation on the part of the public for the chemical industry to do more to minimize the risks posed by the manufacture, transportation, use, and disposal of chemicals. In addition, many jurisdictions feel unprepared or unequipped to effectively handle an incident involving hazardous materials, and therefore, rely on industry resources for assistance in the event an incident occurs. The chemical industry is constantly striving to meet the needs of the public and emergency responders and has developed several programs to address these concerns. The chemical industry's primary resource to provide these services is the Chemical Transportation Emergency Center (CHEMTREC®) located at CMA headquarters in Washington, DC.

1. Introduction

Most emergency response personnel are probably familiar with CHEMTREC®'s role and capabilities in a hazardous materials emergency, however, they may not be aware of the additional resources available through the CHEMTREC® Center. These include an emergency response mutual aid network, a medical emergency assistance network, a non-emergency information service and emergency response training.

2. CHEMTREC®

CHEMTREC® is a public service established by the Chemical Manufacturers Association (CMA) and its members in 1971 in response to the growing need for information and assistance on the part of emergency responders and

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carriers of hazardous materials. The Center was developed as both a resource for obtaining immediate emergency response information and as a means for first responders to obtain prompt technical assistance from chemical industry "experts" during emergencies.

CHEMTREC® has been in operation 24-hours-a-day, seven-days-a-week since September 1971. The Center can be reached through its toll-free emergency telephone number, 1-800-424-9300, from anywhere within the United States, Puerto Rico, the Virgin Islands and Canada. Callers outside the United States and ships at sea can contact the Center using CHEMTREC®'s international and maritime number, 1-202-483-7616 (collect calls are accepted).

The CHEMTREC® emergency telephone number is displayed on a variety of containers carrying hazardous materials, including rail cars and tank trucks, so that in the event of a chemical emergency, first responders and others at the scene can immediately contact CHEMTREC® for assistance.

The Center is staffed around the clock by trained personnel. CHEMTREC® can directly contact major manufacturers of hazardous materials and thousands of other shippers of hazardous materials whose products may be involved in an accident, and carriers who may be transporting these materials. CHEMTREC® also has the capability to teleconference on-scene emergency responders with representatives of the shipper or manufacturer, medical professionals and other technical resources to obtain expert advice and assistance.

The Center uses a two-step approach in dealing with hazardous materials emergencies: First, upon notification of an incident, information is obtained from the caller that includes the:

- nature of the emergency (i.e., spill, leak, fire, or exposure)
- caller's name and call back number
- caller's organization
- location of the incident
- name of the shipper, carrier and consignee
- container type and the amount of material released
- railcar or truck number

Based on this and any additional information the caller is able to supply, immediate emergency response information is provided. This information is generally provided from a product-specific Material Safety Data Sheet (MSDS) provided to CHEMTREC® by the manufacturer.

In those instances where limited information is available, CHEMTREC® can still render assistance using other resources, such as its network of carrier contacts and its extensive reference library.

Second, a call is made to the 24-hour emergency contact designated by the shipper or manufacturer, relaying the details of the incident. The shipper is expected to contact the incident scene to provide additional technical advice and assistance. When necessary, the Center's communicators can initiate a conference call with poison control center specialists, or company physicians and medical professionals for treatment protocols for incidents that involve exposure to industrial chemicals.

CHEMTREC® maintains a reference library of over 1,000,000 MSDSs available to emergency responders. This information can be accessed within seconds and faxed immediately to response personnel at the scene of an emergency. In this way, emergency responders at the scene can have access, via fax, to CHEMTREC®'s data base of MSDSs.

Approximately 70 percent of the emergency incidents handled by CHEMTREC® annually are received from highway, rail, marine and air carriers of hazardous materials. The remaining 30 percent are received from the fire service, law enforcement agencies, medical professionals, and the general public. Approximately 25 percent of the calls received by the Center each year involve transportation and non-transportation related chemical emergencies and other incidents. The remainder of the calls involve requests for a variety of information including non-emergency chemical information, information on the CHEMTREC® registration program, telephone numbers for chemical companies, as well as a variety of miscellaneous non-emergency inquiries.

3. Hazardous materials regulations

The U.S. Department of Transportation's (DOT) regulations contained in Title 49 of the Code of Federal Regulations generally require that "a person who offers a hazardous material for transportation must provide a 24-hour emergency response telephone number ... for use in the event of an emergency involving the hazardous material".

In light of the requirements set forth in the DOT regulations, CMA instituted a formal registration program for companies who use CHEMTREC®'s toll-free 24-hour emergency telephone number on their hazardous materials shipping papers as a method of compliance with DOT Hazardous Materials Regulations. Any shipper of hazardous materials, including companies that are not members of CMA, can register with the Center.

A company that registers with CHEMTREC® is required to submit MSDSs for the hazardous materials it ships, and to provide company contacts that can be reached 24 hours a day in the event of a hazardous materials emergency. This ensures that the Center has specific product information on file *before* an incident occurs, as well as 24-hour contact with the shippers and/or manufacturers of the hazardous materials being transported. Additionally, when a registered company is notified by CHEMTREC® that a shipment is involved in a hazardous materials incident, the company is expected to contact the responders at the scene to provide follow-up advice and assistance.

4. Emergency response mutual aid network

In addition to CHEMTREC®, CMA operates an industry-wide emergency response mutual aid network. Chemical shippers that join the network have

access to timely emergency response and technical assistance at the scene of chemical transportation incidents. The primary objective of the program is to provide a chemical industry presence on the scene as soon as possible.

This mutual aid network is comprised of emergency response teams from participating chemical companies as well as teams provided by commercial, for-hire contractors under contract to CMA. Chemical companies that meet the requirements for membership, including those that may have limited emergency response resources, may join the program. Membership provides a chemical company with access to a nationwide network of response teams available to respond to an emergency involving its products 24-hours-a-day, on request through CHEMTREC®. These teams cannot be activated by emergency responders; they must be requested by chemical companies that are members of the network.

The network is activated when a member company is notified through CHEMTREC® that a chemical distribution incident involving one of its products has occurred and expert assistance may be needed at the scene. If the shipper, who is a member of the network, is unable to respond in a timely manner because of distance or other circumstances, CHEMTREC® links the shipper with the response team closest to the scene able to provide assistance. This could be either another chemical company's response team or a private contractor's response team. This team responds to the incident scene on behalf of the shipper and renders assistance until the shipper's personnel arrive and relieve them.

CHEMTREC® also serves as the communications link for several product-specific industry mutual aid programs such as chlorine, phosphorus, hydrogen fluoride, hydrogen cyanide, vinyl chloride, sulfur dioxide, hydrogen peroxide, compressed gases and swimming pool chemicals.

5. Non-emergency information

CHEMTREC® expanded its public service function and added a toll-free non-emergency telephone number to provide the public, chemical users and the emergency services with access to health, safety and environmental information about chemicals and chemical products. The toll-free number can be reached from anywhere in North America by dialing 1-800-262-8200 Monday through Friday from 9:00 a.m. to 6:00 p.m. eastern time.

When an inquiry about a chemical is received by the Center, the operator first determines whether or not the situation is an emergency. If it is an emergency involving a spill, leak, fire or exposure, it is immediately transferred to CHEMTREC®'s emergency lines. For non-emergency requests for information, the operator either answers the caller's question, or provides the number of someone who can answer it by accessing a database that contains contacts for over 2,500 chemical manufacturers, government agencies, allied trade associations, over 1,000,000 chemical and trade name products and numerous other references.

6. Lending library/emergency response training programs

Another major area in which CMA addresses the needs of the emergency response community is through its Emergency Response Training (ERT) initiatives. CMA maintains a Lending Library of audiovisual training programs that provide guidance for personnel responding to hazardous materials emergencies. The services of the library are available at no cost to anyone in the United States who wishes to borrow these materials.

These programs, several of which have been developed by a group of emergency response experts from CMA member companies, provide first responders with specific technical information and advice to assist them in the safe and timely mitigation of incidents involving a wide variety of hazardous materials. Currently, there are over 50 programs available through the library. These programs cover such topics as recognizing and identifying the presence of hazardous materials, and responding to incidents involving specific commodities such as chlorine, ammonia, liquefied petroleum gas (LPG), sulfuric acid, hydrogen peroxide, and phosphorus. Some of the programs address a broader group of materials such as compressed gases, oxidizers, poisons, pesticides, and swimming pool chemicals. Others address incident command and decision-making. Three of the programs are available in Spanish.

The majority of the people that borrow these programs are members of the emergency services such as fire fighters, police, and emergency medical services personnel. However, the chemical industry, carriers, educational institutions, government agencies, and private emergency response firms also use the services of the library. A number of the training programs in the library were produced by CMA for first responders. These include "First On Scene", "Teamwork", and "The Emergency Response Guidebook – A Tool for Safety".

CMA also developed a five-program series concerning emergency response for specific hazard classes. Programs in this series address the handling of incidents involving oxidizers, poisons, flammable solids, corrosives and flammable liquids. These programs are more technical in nature and are intended to provide training for members of hazardous materials response teams.

CMA also regularly conducts "hands-on" training workshops for emergency responders and makes the services of CHEMTREC® available for emergency response drills. The chemical industry's goal is to provide emergency responders with access to prompt expert technical information and assistance for incidents involving hazardous materials.

7. Responsible Care®

CHEMTREC® is an important component of CMA's Responsible Care® initiative through which member companies make a commitment to continually improve the industry's performance in response to public concerns about the impact of chemicals on health, safety and the environment. This includes

increased emphasis on the safe distribution of chemicals, emergency preparedness and accident prevention and providing emergency advice and assistance in the event an incident involving chemicals occurs.

Through the services provided by CHEMTREC® and its related programs, the chemical industry is providing an important service to those who respond to hazardous materials emergencies. The program also provides assistance to the general public in obtaining non-emergency information. The chemical industry will continue to support the development of initiatives designed to meet the needs of the emergency response community and protect the health and safety of the public.

For non-emergency information, general information or to find out more about CHEMTREC® or any of CMA's other services, call CMA at 1-800-262-8200.