EMERGENCY ACTION PLAN FORMS

OVERVIEW FORMS PACKET (See PRC.1.7.0.1 in the OVERVIEW Manual) Published as part of AXA XL Risk Consulting

SUGGESTED ARCTIC FREEZE CHECKLIST WITH COLD WEATHER PRECAUTIONS

| 2. | Restore any cutback of heat to buildings or processes. Provide additional heat for normally cold areas. Make certain there is an adequate supply of fuel for the heating systems. | | |
|-----|--|-----------------------------|--------------|
| 3. | · | | |
| | Make certain there is an adequate supply of fuel for the heating systems | | |
| 4. | wake certain there is an adequate supply of identify the fleating systems. | | |
| | Expedite the completion of any postponed repairs to the heating system. | | |
| 5. | Forgo any planned heating plant or boiler inspections until the danger of the severe cold has passed. | | |
| 6. | Keep someone on the premises who will continually monitor all areas of the premises for signs of impending trouble, and provide that person with an up-to-date list of emergency numbers to call should trouble be detected. | | |
| 7. | Add heat tracing to process and protective system piping that might freeze. | | |
| 8. | Check insulation on piping and structures to be certain it will protect them against the extreme cold temperatures. | | |
| 9. | Where processes are shut down, drain piping and tanks to prevent freezing damage. | | |
| 10. | Recheck the Cold Weather Precautions listed on this form. | | |
| dd | other items unique to your facility. COLD WEATHER PRECAUTIONS | | |
| | Plans should be made to remove snow from flat roofs or other structures which might collapse. All doors, windows, skylights, ventilators, and other openings should be weather-tight so they will not adm | it cold air that could cau: | se sprinkler |
| | All doors, windows, skylights, ventilators, and other openings should be weather-tight so they will not adm systems to freeze. | it cold air that could cau | se sprinkler |
| 3. | Heating Systems | | |
| | To determine that the entire system is in proper operating condition, it should be examined and deficiencie flues should be clean. Obstructions should be removed from all pipes, radiators, and unit heaters. Controls tested for proper operation. | | |
| | 2. Where possible, an adequate reserve supply of fuel should be on hand at all times. Safe alternate energy | | • |
| | Temperatures about 40°F (5°C) must be maintained at all times in buildings equipped with wet pipe sprink action, and deluge valve closets; and in all pump houses. | ler systems; in all dry pi | oe, pre- |
| | 4. Clearances should be maintained between heating system components and combustible floors, walls, par | titions, platforms and sto | ock. |

COLD WEATHER PRECAUTIONS (continued):

Page -2-

C. Protective Systems

Some of the following maintenance procedures involve valve operation or other impairments to protective systems. Proper procedures should be followed in all such cases (see OVERVIEW Section 1, Impairments To Protective Systems).

- Plans should be made to promptly clear snow from access ways, control valves, hydrants, hose cabinets, smoke and heat vents, explosion relief vents, and other essential equipment to permit effective operations in the event of an emergency.
- 2. Wet pipe sprinkler systems in areas which are inadequately heated should be converted to dry pipe or pre-action systems
- Dry pipe sprinkler systems and preaction or deluge systems dry pilot lines should be inspected carefully to make sure that the piping is
 properly pitched for drainage. Any condensation that collects in low points in the piping should be removed. Excessive priming water should
 also he removed.
- 4. Sprinkler heads in the immediate vicinity of steam pipes, unit heaters, or other heat-producing appliances should be of the correct temperature rating.
- 5. Solutions in all anti-freeze sprinkler systems should be tested and anti-freeze added as necessary.
- Any "shut-in-winter" valves controlling small unheated areas should be closed, tagged with Global Asset Protection Services cold weather shut-off tags, and properly drained. Consideration should be given to converting such systems to either a dry pipe or a pre-action system.
- 7. All wet standpipe systems with piping located in areas subject to freezing should be shut off, drained and tagged.
- 8. Connections to water motor gongs and fire department connections should be properly drained.
- D. Fire Protection Water Tanks
 - Gravity tanks must not leak, since an accumulation of ice on trestles can cause the tank structure to collapse. The expansion joint and riser boxing should be in good condition.
 - 2. The water temperature in the gravity tank should be checked frequently during cold weather and maintained at no less than 42T.
 - 3. The tank heating system should be flushed and put in good working order.
 - 4. The tank roof-hatch cover should fit tightly and be fastened.
- E. Hydrants and Underground Piping
 - 1. Hydrants and fire pump hose headers should be drained. Outlet hose valves must be left half open to prevent damage from freezing.
 - 2. Hose should be properly drained and dried.
 - 3. Packing on post indicator valves should not be leaking.
 - 4. Sections of exposed piping should be drained or otherwise protected against freezing.
 - 5. Valve and meter pits should be dry and frost-proof.
- F. Portable and Wheeled Fire Extinguishers located in cold areas should be suitable for such locations or installed in heated cabinets.
- G. Automotive Fire Apparatus should be properly serviced for cold weather.

EARTHQUAKE BUILDING INVENTORY

| Bldg. Name/No. | | Inventory By | Date | |
|--------------------------------|---|---|---------------------|---------------------|
| ate of Construction | Design Bldg | . Code | Code Adopted | |
| | | (Local, State, Na | at'i) | (Date) |
| | | | | |
| Jidwiligs Available (1714) | | | | |
| Number of Stories | · | leight | Size | Footprint |
| Shape | | | | Тоберинг |
| Provide freehand sketch and | section on back of form. (Note adjacent buildin | ntal and vertical shape — Regular vs in | regular) | |
| Construction | | 3 / | | |
| Structural System | | | | |
| | | (Describe or classify) | | |
| Roof Construction | | (Describe or classify) | | |
| Exterior Walls | | Floors | | |
| | (Construction) | | (Cons | ruction) |
| Connections | (Descrit | e anchors for roof to wall, wall to floors | or foundation) | |
| | (Descri | e and lots for root to wall, wall to libors | or loandation) | |
| Condition | | | | |
| | (Evaluate ger | neral condition of structure - Note promi | nent weakness) | |
| s bldg. on: | Level Ground | Sloping Groun | nd | Adj to earthen Bank |
| s bldg. constructed on: | | Natural Soils | ☐ Fill | Unknowr |
| Nonstructural | | | | |
| Partitions | | Ceilings | | |
| | (Type and Construction) | | (Type and C | construction) |
| Windows | | Fixed or Movable - Wood or Metal Fram | 201 | |
| Light Fixtures | ,, | TOO OF WOOD OF WOOD IN THE TOO | , | |
| | | (Hanging - Am they secure) | | |
| Mechanical Equipment | | (Floor, wall or ceiling mounted - secu | re mount or anchor) | |
| Professional structural and ha | azard analysis needed? (Y/N) | (1 100), Wall of Colling House 2002 | To mount or unonery | |
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EARTHQUAKE PREPAREDNESS

The establishment of an Earthquake Preparedness program must accept the premise that earthquakes occur without warning. There will be no "watch" or "warning" period as issued for other natural hazards such as hurricane, flood, winter storm or arctic freeze. Current technology does not allow for precise time and location forecasting of a damaging earthquake. Efforts for loss mitigation must entail a continuing program consisting of preparations subject to repetitive review, reevaluation and upgrading. Drills and practice must contemplate after the fact response to property damage, physical destruction, interruption of utility services, personal injury and possibly loss of life. AND: you will be left to your own resources for a nominal period of time.

The following checklist notes items which, if appropriately addressed, will enhance the potential for your business to fully recover from the effects of an earthquake.

| | ACTION | IMPLEMENTED | REVIEWED |
|----------|---|------------------------------|---------------------|
| ۱. | Make a seismic hazard appraisal of buildings and structures. If in doubt of the seismic health of the facility consult a structural engineer. | | |
| 2. | Inspect signs, tanks, stacks and chimneys for deterioration and proper support. | | |
| . | Plan upgrade strengthening where necessary for 1. and 2. above. | | |
| | Designate – "safe" shelter or assembly areas. | | |
| | Designate - "safe" evacuation routes from all areas to assembly areas. | | |
| V٥ | e: A minimum of two safe assembly areas and two evacuation routes should be established in o | ase the primary area or rout | e is inaccessible.) |
| 0 | N-STRUCTURAL BUILDING RELATED CONSIDERATIONS: | | |
| | ACTION | IMPLEMENTED | REVIEWED |
| 1. | Make an earthquake hazard/safety appraisal of buildings and operations. (Also identify or develop - Duck, Cover and Hold - locations along evacuation routes.) | | |
| 2. | Brace tall cabinets, shelves, tall machinery and equipment or other top heavy objects which could topple. | | |
| 3. | Brace and adequately support overhead mounted fixtures, drop ceilings, piping, heaters or other overhead devices. | | |
| 4. | Bolt down and restrain flammable fuel fired appliances and provide flexible connectors for fuel supply. | | |
| 5. | Provide frequent isolation valving for piping systems. | | |
| 6. | Provide safe independent alternate energy sources for vital equipment and services. | - | |
| 7. | Provide auxiliary and backup equipment and energy sources for critical services such as communications and lighting. | | |
| 8. | Restrain and adequately support mainframe computers. | | |
| 9. | Safeguard vital records. (Include both physical and machine processing for update, storage and retrieval.) | | |
| 0. | Plan for continuation of Plant Security. | | |
| 1. | Consider that employees may remain on premises for up to 72 hours. Provide reasonable and adequate supplies of necessities. | | |
| 12. | Plan for Customer/Client/Supplier awareness and develop contingency plans for continued business operations. (include plans for alternate office facilities, financial procedures, data processing, communications and transportation.) | | |
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| IX L | SPONSE CONSIDERATIONS: | | |
|-------|--|-------------|----------|
| 1 | ACTION MAKE A PLAN AND REVIEW IT ANNUALLY. | IMPLEMENTED | REVIEWED |
| 54.45 | NOTE: Earthquake aftershocks may occur-expect them -include the probability in your planning. | | |
| 2. | Acquire necessary up-to-date educational and emergency information materials. | | : |
| 3. | Involve all level of personnel in information discussions and repetitive meetings, drills and practice sessions. Allow for the contingency of on-site customers, vendors or visitors. | | |
| 4. | Assign two responsible people in each department, each shift, who can "TAKE CHARGE" of their group immediately. This will reassure all employees that the situation is under control and enhance prompt response actions. | | 1 |
| 5. | Assign specific duties and responsibilities such as accounting for personnel, checking for injuries, building damage assessment, checking for fire and fire hazards, leaking gas or flammable/hazardous liquids, safe equipment shutdown, shutting off fuel lines, disconnecting power, containing hazardous materials and evacuating the premises, as much as practical. | | |
| 6. | Suitable prearrangements will be necessary for the care and handling of injured and handicapped persons. | | Ø |
| 7. | Establish a communications network employing self contained devices such as radio transceivers. Include reporting of conditions from on premises locations and off premises sites as practical to a central on site control point such as the designahed 'safe shelter assembly area." A bulletin board can be used to post situation reports of general interest regarding employee residence, specific landmarks, personal inquiries and general status notices. | | |
| 8. | Establish an emergency transportation pool. Transportation beyond the immediate premises should not be attempted until accessibility is known. An inspection of the company properties will be necessary and mobile material handling equipment may need to be utilized on site. | | |
| 9. | Establish contact with neighbors or other industrial mutual aid agreement participants. | | |
| 10. | Establish contact with civil authorities such as police, fire, medical and emergency agencies to advise them of your situation and request or offer assistance as needed or available. | | |
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SUGGESTED FLOOD CHECKLIST

When preparing for a flood, a detailed checklist should be developed indicating the order in which processes are to be shut down and the facility secured. The length of time needed - expressed in hours or days - to accomplish these tasks should be determined in advance so that appropriate actions can be initiated at the proper time. Then, as each task is completed during either a flood watch or flood watning, check it off and move on to the next one.

| | ACTION | | TIME NEEDED | DONE |
|-----|--|---|-------------|-------------------------------|
| 1. | Shut down processes safely, and drain open tanks of flammable or combusti | ble liquids. | | |
| 2. | Brace unsupported structural members at construction sites. | | | |
| 3. | Up-date important backup records, and move them to a location not vulneral | ole to flooding. | | |
| 4. | Anchor yard items that can be moved by flood waters, such as trailers, lumb materials inside if practical. Barricade critical outdoor equipment with sandbadebris. | | | |
| 5. | Assemble the following supplies and equipment at a central, secure location | | | |
| | Portable pumps and hose M | ops and squeegees | | |
| | Emergency lighting Ta | arpaulins | | |
| | Lumber and nails P | ower and manual tools Shovels and axes | | |
| | Sandbags | | | _ |
| 6. | Ensure that the emergency crew remaining on the premises has the following | g: | | _ 🗆 |
| | Nonperishable food Tv | wo-way radios | | |
| | First aid equipment S | ored drinking water | | |
| | Lighting | | | _ |
| 7. | Fill emergency generator and fire pump fuel tanks | | - | . 🖳 |
| 8. | Inspect all fire protection equipment to be sure it is in service. | | | . 🗆 |
| 9. | Check travel brakes on movable cranes and bridges. Anchor them in accord instructions. | ance with the manufacturer's out-of-service | | |
| 10. | Place sandbags at vulnerable building openings and around critical outdoor such as holes in foundations, doorways, and sills. | equipment. Divert water from critical areas | | |
| 11. | Move important machinery, stock, and reports to higher elevations. By knowlessonably safe areas can be selected. If major equipment cannot be moved grease. | | | |
| 12. | Shut off all flammable and combustible liquids and gases lines at their source and gases from piping broken by floating debris. Support exposed piping pro | | | |
| 13. | Make sure above and below ground tanks are properly anchored to prevent product, and extend vent lines on active tanks above the anticipated maximum. | | | |
| 14. | Lash down portable containers of flammable or combustible liquids. | | | |
| 15. | Shut off electrical power at the main building disconnect when that building is | s in imminent danger of flooding. | | |
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TYPICAL BOMB THREAT CHECKLIST WITH MILITARY ORDNANCE DISPOSAL CONTROL CENTERS

INSTRUCTIONS: LISTEN, DO NOT INTERRUPT THE CALLER! Name of Operator Date Caller's Identity Sex: _ Female __ Approximate Age Years _ Origin of Call Internal (from within Bldg.?) If internal, leave plug in board. Local _Long Distance Booth VOICE BACKGROUND CHARACTERISTICS SPEECH LANGUAGE ACCENT MANNER Loud Fast Excellent Local Calm Office Mach. High Pitch Distinct Fair Foreign Rational Factory Mach. Raspy Stutter Foul Race Coherent Bedlam Intoxicated Slurred Good Not Local Deliberate Animals Soft Slow Poor Caucasian Righteous Quiet Deep Distorted Other Region Angry Mixed Pleasant Nasal Irrational Street Traffic Other Other Incoherent Airplanes Emotional Party Atmos. Laughing Trains Music Other Voices **BOMB FACTS** If caller seems agreeable to KEEP CALLER TALKING further conversation, ask questions like: WHEN WILL IT GO OFF? Certain Hour _____ Time Remaining __ Building _ WHERE IS IT PLANTED? Area WHAT KIND OF BOMB? WHERE ARE YOU NOW? HOW DO YOU KNOW SO MUCH ABOUT THE BOMB? WHAT IS YOUR NAME AND ADDRESS? HOLD ON LINE WHILE YOU NOTIFY SUPERVISOR LISTED BELOW: Did caller appear familiar with plant or building by his description of the bomb location? Write out the message in its entirety and any other comments on reverse side. **ACTION TO TAKE IMMEDIATELY AFTER CALL** Notify following persons in order given: NAME PHONE NO. NAME PHONE NO. NAME PHONE NO. ©2019 by AXA XL Risk Consulting, which grants permission to reproduce this form. Printed in USA PRC.1.7.0.1

Military Ordnance Disposal Control Centers

FIRST U.S. ARMY

Control Center

542nd/549th ORD DET

Fort Meade, MD 20755

Telephone: (301) 677-5182 or 677-5183

Area of Responsibility:

Maine, New Hampshire, Vermont, New York, Massachusetts

Connecticut, New Jersey, Pennsylvania, Delaware Maryland, Ohio, Virginia, West Virginia, Kentucky

Rhode Island, and District of Columbia

THIRD U.S. ARMY

Control Center

547th ORD DET Fort McPherson, GA 30330

Telephone

Duty Hours: (404) 752-3004 or 752-3055

Non Duty Hours: (404) 752-3113

Area of Responsibility:

North Carolina, South Carolina, Georgia, Florida

Alabama, Mississippi and Tennessee

FOURTH U.S. ARMY

Control Center

546th ORD DET

Fort Sam Houston, Texas 78234

Telephone

Duty Hours: (512) 221-4646 or 221-5308 Non Duty Hours: (512) 221-5500 or 221-2907

Area of Responsibility:

Texas, Louisiana, Arkansas, Oklahoma, New Mexico

FIFTH U.S. ARMY

Control Center

543rd ORD DET

Fort Leonard Wood, Missouri 65473

Telephone: (314) 368-3814 or 368-4313

Area of Responsibility:

North Dakota, South Dakota, Wyoming, Colorado

Kansas, Missouri, Iowa, Wisconsin, Michigan, Illinois

Indiana, Minnesota, and Nebraska

SIXTH U.S. ARMY

Control Center

548th ORD DET

Presidio of San Francisco, California 94129

Telephone: (415) 561-4203 or 561-4312

Area of Responsibility:

California, Washington, Oregon, Arizona, Nevada,

Idaho, Montana, Utah

SUGGESTED HURRICANE CHECKLIST

When planning for hurricanes, a detailed checklist should be developed indicating the order in which processes are to be shut down and the facility secured. The length of time needed — expressed in hours or days — to accomplish these tasks should be determined in advance so that appropriate actions can be initiated at the proper time. Then, as each task is completed during either a hurricane watch or hurricane warning, check it off and move on to the next one.

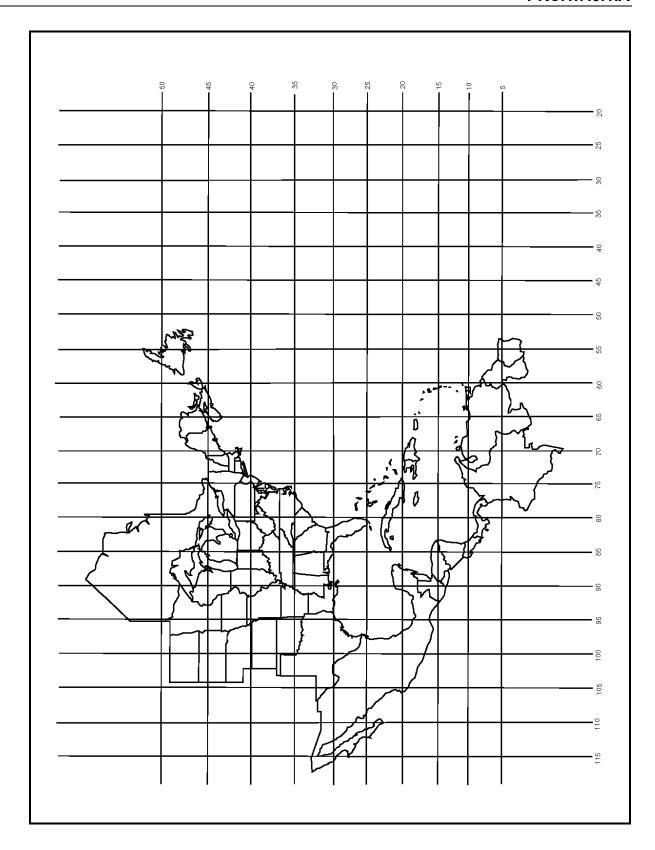
| | ACTION | | TIME NEEDED | DONE |
|-----|--|---|-------------|-------------|
| 1. | Shut down processes safely. | | | |
| 2. | Inspect roof edging strips, gutters, flashing, covering, and drain | s. | | |
| 3. | Inspect sign and stack supports, guy wires, and anchorages. | | | |
| 4. | Check for weak door and window latches or hardware or for ins | secure panel fastenings. Expedite repairs. | | |
| 5. | Protect vulnerable windows from flying debris. | | | |
| 6. | Brace unsupported structural members at construction sites. | | | |
| 7. | Protect important records from wind, debris, and rain. | | | |
| 8. | Up-date important backup records and move them to a location | n not vulnerable to the same incident. | | |
| 9. | Fill aboveground tanks to capacity with product or water to minitanks). | imize wind damage (see Flood Checklist for underground | | |
| 10. | Anchor structures in the yard that can be moved by high winds, stored materials inside where practical. | , such as trailers, lumber, or any loose yard storage. Move | | |
| 11. | Assemble the following supplies and equipment at a central, se | ecure location: | | |
| | Emergency lighting | Caulking compound | | |
| | Lumber and nails | Tarpaulins | | |
| | Tape for windows | Power and manual tools | | |
| | Sandbags | Shovels and axes | | |
| | Roofing paper | Chain saws | | |
| 12. | Ensure that the emergency crew remaining on the premises ha | s the following: | | |
| | Nonperishable food | Two-way radios | | |
| | First aid equipment | Stored drinking water | | |
| | Lighting | | | |
| 13. | Fill emergency generator and fire pump fuel tanks. | | | |
| 14. | Inspect all fire protection equipment to be sure it is in service. | | | |
| 15. | Take extraordinary measures to secure outdoor traveling crane instructions. Besides setting rail clamps, secure with wedges at | | | |
| 16. | Clean out drains and catch basins. | | | |
| 17. | Be sure to prepare the Flood Checklist as well as the Hurricane | e Checklist. | | |
| ٩dc | other items unique to your facility. | | | |
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HURRICANE TRACKING DATA WITH MAP

| STORE NAME | | | | | | CENTRAL PRESSURE (INCHES HG.) | FORWARD SPEED (MPH) | DIRECTION |
|------------|------|----------------------|-----------------------|------------|-----------------------|----------------------------------|------------------------|-----------|
| DATE | TIME | LATITUDE (DEG. N) | LONGITUDE (DEG. W) | MILES FROM | MAXIUMU WIND (MPH) | CENTR (IN | FOR | a |
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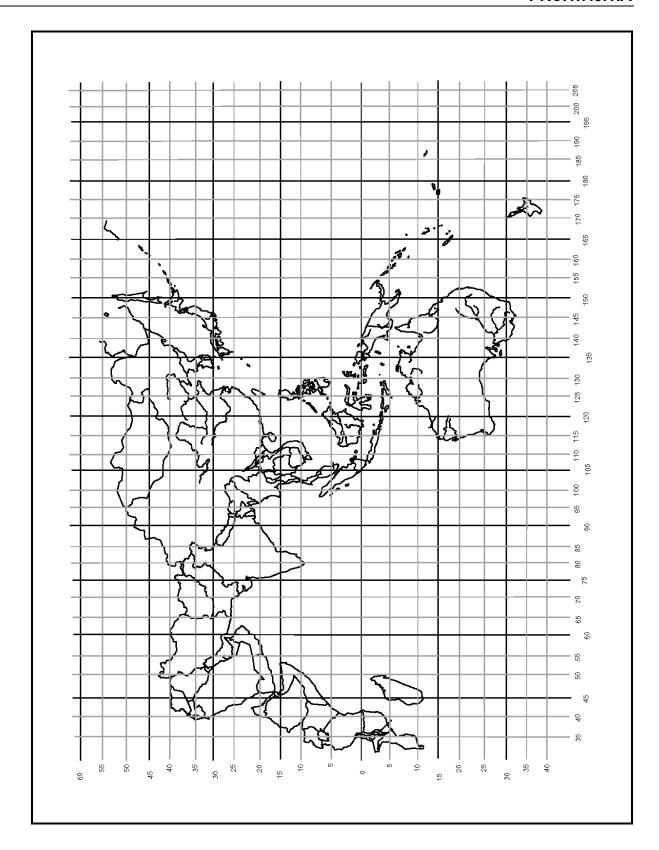


TYPHOON TRACKING DATA WITH MAP

| STORM NAME: DATE TIME LATITUDE (DEG. N) (DEG. W) KILOMETERS FROM | | | | | | CENTRAL PRESSURE (INCHES HG.) | FORWARD SPEED (MPH) | DIRECTION |
|---|--|--|--|--|--|----------------------------------|------------------------|-----------|
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CHEMTREC GUIDELINES FOR RESPONDING TO CHEMICAL OR HAZARDOUS MATERIAL EMERGENCIES

FOR CHEMICAL EMERGENCY

Spill, Leak, Fire, Exposure, or Accident

CALL CHEMTREC — DAY OR NIGHT *800–424–9300

Toll-free in the continental U.S. *Add long distance access number if required

483-7616 in District of Columbia

For calls originating outside the Continental U.S.:

202–483–7616 –Washington, D.C., Collect ALL CALLS ARE RECORDED

USER GUIDANCE

CHEMTREC can usually provide hazard information warnings and guidance when given only the NAME OF THE PRODUCT and the NATURE OF THE PROBLEM. For more detailed information and/or assistance, or if product is unknown, attempt to provide as much of the following additional information as possible:

Name of caller and call back number

Location of problem

Shipper or manufacturer

Container type

Rail car or truck number

Carrier name

Consignee

Local conditions

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CHEMTREC Information

What It Is

CHEMTREC, the Chemical Transportation Emergency Center provides information and/or assistance to those involved in or responding to chemical or hazardous material emergencies. Established in 1971, it is a public service of the Chemical Manufacturers Association (formerly Manufacturing Chemists Association) in Washington, D.C.

CHEMTREC operates in two stages: First, on receipt of information regarding the name of a chemical, it provides immediate advice on the nature of the product and steps to be taken in handling the early stages of a problem. Second, CHEMTREC promptly contacts the shipper of the material involved for more detailed information and appropriate follow-up, including on-scene assistance when feasible.

While the Center's primary mission is to help in transportation incidents, it also provides support in chemical and hazardous materials emergencies in non-transportation situations.

CHEMTREC operates 24 hours a day, seven days a week to receive calls on phone numbers shown on the front panel of this folder. The number is widely circulated in professional literature distributed to emergency service personnel, carriers, the chemical industry, bulletins of government agencies, trade associations and others who may have need. It is not circulated in the public press. The public need is best served through the emergency services.

CHEMTREC is not a reporting center. The Department of Transportation handles this function. CHEMTREC should be called only in those cases where assistance is needed.

CHEMTREC, in its years of operation, unfortunately has received many calls that were not pertinent to emergencies. These calls often interfere with the handling of legitimate emergencies. It is vital that callers understand CHEMTREC is neither intended nor equipped to function as a general information source.

Mode of Operation

Participating companies are requested to include the following on their shipping documents: "For Chemical Emergency — Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC 800-424-9300 day or night."

An emergency reported to CHEMTREC is received by the Communicator on duty. Recording details in writing, or on a video-screen, and by tape recorder, they question the caller to determine as much essential information on the problem as possible. This enables them as a first step, to provide the best available information on the chemical(s) reported to be involved, thereby giving specific indication of hazards, what to do, or what not to do in case of spills, fire or exposure.

Having advised the caller, the Communicator proceeds immediately to notify the shipper by phone or via electronic transmission. The known particulars of the emergency are relayed, and responsibility for further guidance — including dispatching personnel to the scene, or whatever seems warranted — passes to the shipper.

CHEMTREC Communicators are chosen for their ability to remain calm under emergency situations. To preclude unfounded personal speculation regarding a reported emergency, they are under instructions to abide strictly by the information provided for their use by technical experts employed by the industry.

The second stage of assistance becomes more difficult where the shipper is unknown. However, the Communicator has other resources. For example, on problems involving radioactive materials, CHEMTREC can call on the U.S. Department of Energy.

Mutual aid programs exist for some products. Here one producer will service the field emergencies involving another producer's product. Initial referral may be in accordance with the applicable mutual aid plan, rather than directly to the shipper. Arrangements of this sort are established on chlorine through the Chlorine Institute and on pesticides through the National Agricultural Chemicals Association.

The former has CHLOREP, the Chlorine Emergency Plan, in which the nearest producer responds to a problem. NACA has a Pesticide Safety Team Network (PSTN) of some 40 emergency teams distributed throughout the country. In addition, there are mutual assistance programs for other products, including vinyl chloride and hydrogen cyanide. CHEMTREC serves as the communication link for these programs.

CHEMTREC truly serves as the communication point for the entire emergency response system of the private sector and helps support that of the public sector. Many companies in the chemical and other industries have their own well-organized national response capabilities. The chemical industry is constantly working to expand this capability to assist others in planning such capabilities.

Identification of product and shipper is important to minimize time needed to provide necessary information and assistance. Shipping papers are carried by truck drivers and in the engine or caboose of trains. Car and truck numbers and carrier names can be useful in tracing unknown cargoes.

Relationship to Government

While CHEMTREC is in the private sector, its capabilities have been recognized for many years by the Department of Transportation, and a close and continuing relationship is maintained between CHEMTREC and the Department. More recently, formal acknowledgement of this arrangement was signed by DOT and CMA. Through the U.S. Coast Guard's National Response Center, the DOT is notified of significant incidents affecting personnel or the environment. The usual day-to-day incidents are not reported. Working closely together, the capabilities of each system will be enhanced.

Background

CMA is a trade association of chemical manufacturers, large and small, representing more than 90 percent of the production capacity for basic industrial chemicals in the United States and Canada. It has long been active in programs to improve the safety of chemical shipping containers, both package and bulk units, thereby minimizing failures and leakage of contents under extraordinary stress. Such efforts continued unabated.

Nevertheless, despite precautions taken, train derailments, truck upsets and collisions and barge accidents do happen. Such emergencies deserve to be handled as well as possible to minimize harmful effects on life and property.

Emergency services — fire and police — normally are well-prepared to cope with common materials, including certain flammables such as fuel oil and gasoline. Too often they are at a disadvantage when chemicals are involved, especially since "what should be done" and "what should not be done" in the early stages may bear heavily on the seriousness of the incident. They need accurate, clearly understandable information to help them act with proper precautions.

The concept of CHEMTREC was first explored by the Chemical Manufacturers Association in the mid 1960s following some major derailments. Officials of concerned federal departments approached CMA to determine what the industry could do to provide information to emergency services and carriers. After thorough consideration, the CHEMTREC concept was recommended and approved by CMA's Board of Directors in June 1970. The continuous and expanding operations since that time have confirmed the validity of the concept.

Other Associations

CMA and CHEMTREC coordinate their programs with many other trade associations and professional groups. The Bureau of Explosives of the Association of American Railroads is involved in many rail incidents. Members of the American Trucking Associations and National Tank Truck Carriers are also major users of CHEMTREC. Groups representing manufacturers of other hazardous materials work with CHEMTREC in providing information in emergencies. This, and cooperation with emergency services, is essential in maintaining an effective program.

For More Information

Questions regarding CHEMTREC should be sent to: Director, CHEMTREC. c/o CMA, 2501 M Street, N.W., Washington, D.C. 20037. Telephone 202-887-1255.