

OVERVIEW FORMS

SUGGESTED BOILER LOG SHEET

NOTE: This log is suitable only for boilers in heating systems which return 100% of the condensate to the boiler or which circulate hot water. It is not suitable for steam boilers with safety valves set higher than 15 psi (1.03 bar) or water boilers operating at greater than 160 psi (11 bar) or 250°F (121°C).

Boiler Number _____ Person Responsible for Boiler _____ Phone Number _____

Inspector's Name/Agency _____ Phone Number _____

Last Inspection ____ / ____ / ____ Operating Certificate Expires ____ / ____ / ____

Location of Certificate (if not posted) _____

Annual Service ____ / ____ / ____ Service Firm _____ Phone Number _____

The following tests and inspections may be recorded on the chart on the reverse side.

- ☐ **SAFETY OR RELIEF VALVE TEST.** With pressure in the boiler, fully open the valve, using the test lever provided, and let it snap shut. If the valve does not reseat properly, repeat. **If the safety or relief valve cannot be lifted, the boiler must be shut down immediately until the valve can be repaired or replaced.**
- ☐ **LOW WATER FUEL SUPPLY CUTOUT (LWFCO) RAPID DRAIN TEST.** With the burner in operation, rapidly flush the LWFCO chamber using the drain valve provided. The burner **must** shut off when the device is drained. **If the boiler does not have at least one properly functioning LWFCO, it must not be left unattended until repairs are made.**
- ☐ **LWFCO SLOW DRAIN TEST.** With the burner in operation, verify the function of the LWFCO by **slowly** reducing the level of the water in the boiler. Great care must be taken to prevent actually firing the boiler with insufficient water. This test should be performed quarterly for steam boilers and annually for water boilers.
- ☐ **DRAIN WATER GAUGE GLASS.** If necessary, drain and flush the water column and gauge glass.
- ☐ **BURNER CHECK.** Observe the boiler and burner for a long enough period to be certain that the burner operates normally. Test the combustion safeguard system (if possible).
- ☐ **CIRC OR COND PUMP CHECK.** For steam boilers, when testing the LWFCO, verify operation of the condensate pump and/or emergency feeder.
- ☐ **CHECK SYSTEM FOR LEAKS.** The entire system should be examined for leaks of steam and water with particular attention paid to pump and valve packings, automatic air vents, and condensate tank overflow lines. Leaks, in addition to possible water or humidity damage, are wasteful of energy and, over time, will result in scale buildup in the boiler.
- ☐ **WATER CHEMISTRY CHECK.** Test the boiler water as appropriate for your area. Quarterly is normally sufficient. The frequency must be determined by experience.

CALL YOUR SERVICE FIRM OR BOILER INSPECTOR IF YOU NEED ASSISTANCE WITH ANY OF THESE ITEMS

NOTE: This log is recommended for fluorocarbon (Freon, Genetron, etc.) air conditioning systems with hermetic centrifugal compressors. With minor modification, it is suitable for similar equipment separately driven by a motor, turbine or engine.

Unit Number _____ Person Responsible for Unit _____ Phone Number _____

Inspector's Name/Agency _____ Phone Number _____

Startup Service ____/____/____ Winterizing (if applicable) ____/____/____

Service Firm _____ Phone Number _____

[illegible]

On the back, list any additional information, including leakage or abnormal conditions observed, oil or refrigerant added, purged fluid drained, and any tests, repairs or adjustments performed. Record any automatic shutdowns, including their time and cause. "If the unit is not running, enter the refrigerant level in the evaporator and the status of the oil reservoir heater.



SUGGESTED ARCTIC FREEZE CHECKLIST WITH COLD WEATHER PRECAUTIONS

When preparing for an Arctic Freeze, 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 winter watch or storm warning, check it off and move on to the next one.

ACTION	TIME NEEDED	DONE
1. Restore any cutback of heat to buildings or processes.	_____	<input type="checkbox"/>
2. Provide additional heat for normally cold areas.	_____	<input type="checkbox"/>
3. Make certain there is an adequate supply of fuel for the heating systems.	_____	<input type="checkbox"/>
4. Expedite the completion of any postponed repairs to the heating system.	_____	<input type="checkbox"/>
5. Forgo any planned heating plant or boiler inspections until the danger of the severe cold has passed.	_____	<input type="checkbox"/>
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.	_____	<input type="checkbox"/>
7. Add heat tracing to process and protective system piping that might freeze.	_____	<input type="checkbox"/>
8. Check insulation on piping and structures to be certain it will protect them against the extreme cold temperatures.	_____	<input type="checkbox"/>
9. Where processes are shut down, drain piping and tanks to prevent freezing damage.	_____	<input type="checkbox"/>
10. Recheck the <i>Cold Weather</i> Precautions listed on this form.	_____	<input type="checkbox"/>

Add other items unique to your facility.

COLD WEATHER PRECAUTIONS

Unless proper precautions are taken, cold weather can cause problems. Buildings may be loaded beyond their design by accumulations of snow and ice. Fire protection equipment may freeze, leaving a major portion of the facility without protection.

Prior to and during cold weather, the following precautions should be taken.

A. General

- 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 admit cold air that could cause sprinkler systems to freeze.

B. Heating Systems

- To determine that the entire system is in proper operating condition, it should be examined and deficiencies corrected. Burners, boilers, and flues should be clean. Obstructions should be removed from all pipes, radiators, and unit heaters. Controls of heating equipment should be tested for proper operation.
- Where possible, an adequate reserve supply of fuel should be on hand at all times. Safe alternate energy sources should be investigated.
- Temperatures about 40°F (5°C) must be maintained at all times in buildings equipped with wet pipe sprinkler systems; in all dry pipe, pre-action, and deluge valve closets; and in all pump houses.
- Clearances should be maintained between heating system components and combustible floors, walls, partitions, platforms and stock.

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).

1. 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.
3. 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 be 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.
6. Any "shut-in-winter" valves controlling small unheated areas should be closed, tagged with AXA XL Risk Consulting's 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

1. 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 42°F (5.5°C).
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 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.

STRUCTURAL CONSIDERATIONS:

ACTION	IMPLEMENTED	REVIEWED
1. 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.		
3. Plan upgrade strengthening where necessary for 1. and 2. above.		
4. Designate –"safe" shelter or assembly areas.		
5. Designate –"safe" evacuation routes from all areas to assembly areas.		

(Note: A minimum of two safe assembly areas and two evacuation routes should be established in case the primary area or route is inaccessible.)

NON-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.)		
10. Plan for continuation of Plant Security.		
11. 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.)		

RESPONSE CONSIDERATIONS:

ACTION	IMPLEMENTED	REVIEWED
1. MAKE A PLAN AND REVIEW IT ANNUALLY. 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.		
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.		
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 designated '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.		

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 warning*, 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 combustible liquids.	_____	<input type="checkbox"/>
2. Brace unsupported structural members at construction sites.	_____	<input type="checkbox"/>
3. Up-date important backup records, and move them to a location not vulnerable to flooding.	_____	<input type="checkbox"/>
4. Anchor yard items that can be moved by flood waters, such as trailers, lumber, or loose yard storage. Move stored materials inside if practical. Barricade critical outdoor equipment with sandbags to provide protection against floating debris.	_____	<input type="checkbox"/>
5. Assemble the following supplies and equipment at a central, secure location:		<input type="checkbox"/>
_____ Portable pumps and hose	_____ Mops and squeegees	
_____ Emergency lighting	_____ Tarpaulins	
_____ Lumber and nails	_____ Power and manual tools Shovels and axes	
_____ Sandbags		
6. Ensure that the emergency crew remaining on the premises has the following:	_____	<input type="checkbox"/>
_____ Nonperishable food	_____ Two-way radios	
_____ First aid equipment	_____ Stored drinking water	
_____ Lighting		
7. Fill emergency generator and fire pump fuel tanks	_____	<input type="checkbox"/>
8. Inspect all fire protection equipment to be sure it is in service.	_____	<input type="checkbox"/>
9. Check travel brakes on movable cranes and bridges. Anchor them in accordance with the manufacturer's out-of-service instructions.	_____	<input type="checkbox"/>
10. Place sandbags at vulnerable building openings and around critical outdoor equipment. Divert water from critical areas such as holes in foundations, doorways, and sills.	_____	<input type="checkbox"/>
11. Move important machinery, stock, and reports to higher elevations. By knowing the past flooding history of the area, reasonably safe areas can be selected. If major equipment cannot be moved, coat vulnerable metal surfaces with grease.	_____	<input type="checkbox"/>
12. Shut off all flammable and combustible liquids and gases lines at their source to prevent the discharge of such liquids and gases from piping broken by floating debris. Support exposed piping properly.	_____	<input type="checkbox"/>
13. Make sure above and below ground tanks are properly anchored to prevent flotation. Fill empty tanks with water or product, and extend vent lines on active tanks above the anticipated maximum water level.	_____	<input type="checkbox"/>
14. Lash down portable containers of flammable or combustible liquids.	_____	<input type="checkbox"/>
15. Shut off electrical power at the main building disconnect when that building is in imminent danger of flooding.	_____	<input type="checkbox"/>

TYPICAL BOMB THREAT CHECKLIST WITH MILITARY ORDNANCE DISPOSAL CONTROL CENTERS

INSTRUCTIONS: LISTEN, DO NOT INTERRUPT THE CALLER!

Name of Operator _____ Time _____ Date _____

Caller's Identity

Sex: Male _____ Female _____ Approximate Age _____ Years _____

Origin of Call

_____ Local _____ Long Distance _____ Booth _____ Internal (from within Bldg.?) If internal, leave plug in board.

VOICE CHARACTERISTICS	SPEECH	LANGUAGE	ACCENT	MANNER	BACKGROUND NOISES
_____ 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	_____	_____ Other	_____ Irrational	_____ Street Traffic
_____ Other	_____ Other	_____	_____	_____ Incoherent	_____ Airplanes
_____	_____	_____	_____	_____ Emotional	_____ Party Atmos.
_____	_____	_____	_____	_____ Laughing	_____ Trains
_____	_____	_____	_____	_____ Other	_____ Music
_____	_____	_____	_____	_____	_____ Voices

BOMB FACTS

If caller seems agreeable to further conversation, ask questions like:

KEEP CALLER TALKING

WHEN WILL IT GO OFF? Certain Hour _____ Time Remaining _____

WHERE IS IT PLANTED? Building _____ 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. _____

NAME _____

PHONE NO. _____

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

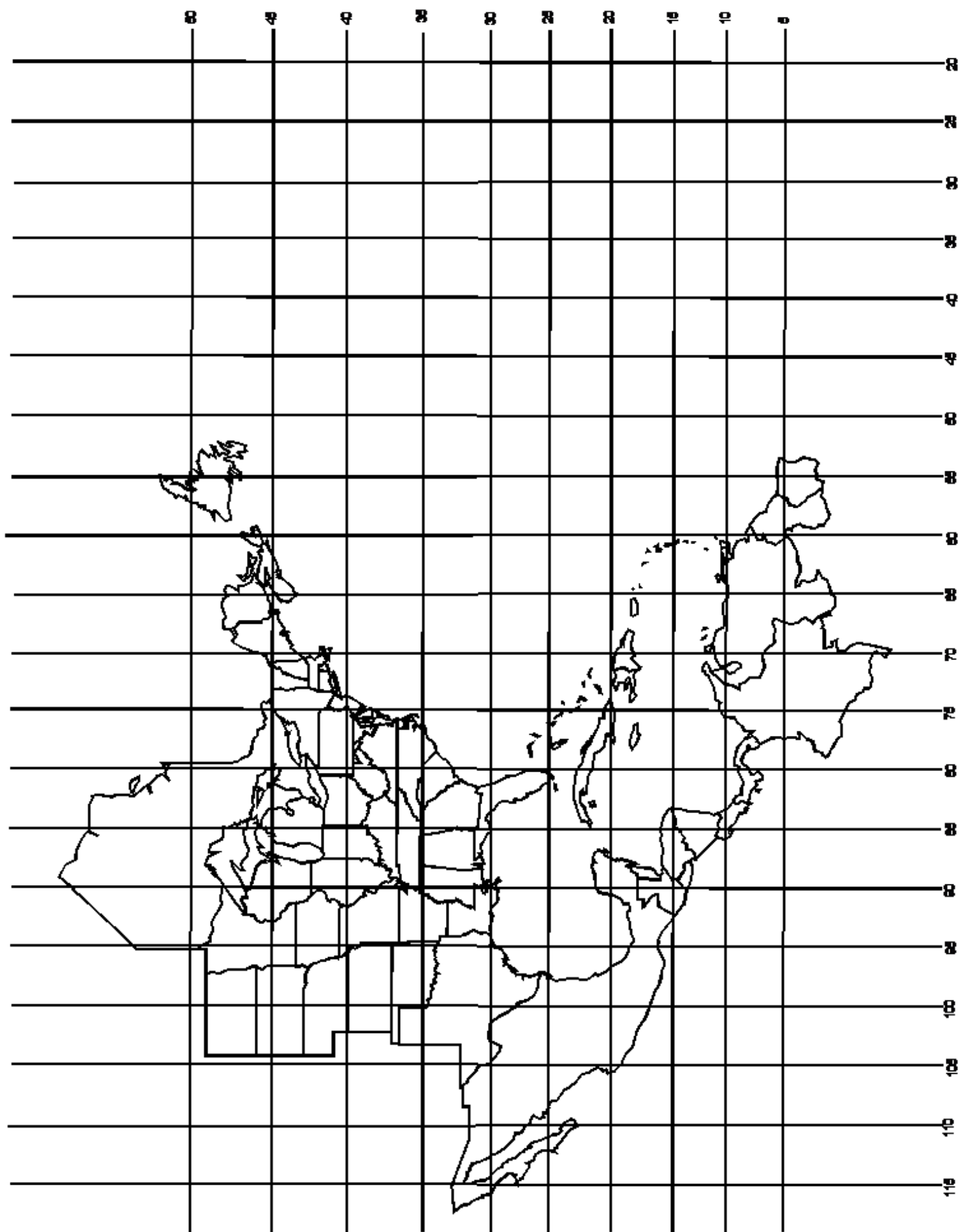
When planning for hurricanes, a detailed checklist should be developed indicating the order in which processes are to be shut down and the facility secured. The length of time needed — expressed in hours or days — to accomplish these tasks should be determined in advance so that appropriate actions can 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.	_____	<input type="checkbox"/>
2. Inspect roof edging strips, gutters, flashing, covering, and drains.	_____	<input type="checkbox"/>
3. Inspect sign and stack supports, guy wires, and anchorages.	_____	<input type="checkbox"/>
4. Check for weak door and window latches or hardware or for insecure panel fastenings. Expedite repairs.	_____	<input type="checkbox"/>
5. Protect vulnerable windows from flying debris.	_____	<input type="checkbox"/>
6. Brace unsupported structural members at construction sites.	_____	<input type="checkbox"/>
7. Protect important records from wind, debris, and rain.	_____	<input type="checkbox"/>
8. Up-date important backup records and move them to a location not vulnerable to the same incident.	_____	<input type="checkbox"/>
9. Fill aboveground tanks to capacity with product or water to minimize wind damage (see Flood Checklist for underground tanks).	_____	<input type="checkbox"/>
10. Anchor structures in the yard that can be moved by high winds, such as trailers, lumber, or any loose yard storage. Move stored materials inside where practical.	_____	<input type="checkbox"/>
11. Assemble the following supplies and equipment at a central, secure location:	_____	<input type="checkbox"/>
_____ 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 has the following:	_____	<input type="checkbox"/>
_____ Nonperishable food	_____ Two-way radios	
_____ First aid equipment	_____ Stored drinking water	
_____ Lighting		
13. Fill emergency generator and fire pump fuel tanks.	_____	<input type="checkbox"/>
14. Inspect all fire protection equipment to be sure it is in service.	_____	<input type="checkbox"/>
15. Take extraordinary measures to secure outdoor traveling cranes and bridges in accordance with manufacturers' instructions. Besides setting rail clamps, secure with wedges and cable anchors.	_____	<input type="checkbox"/>
16. Clean out drains and catch basins.	_____	<input type="checkbox"/>
17. Be sure to prepare the Flood Checklist as well as the Hurricane Checklist.	_____	<input type="checkbox"/>

Add other items unique to your facility.

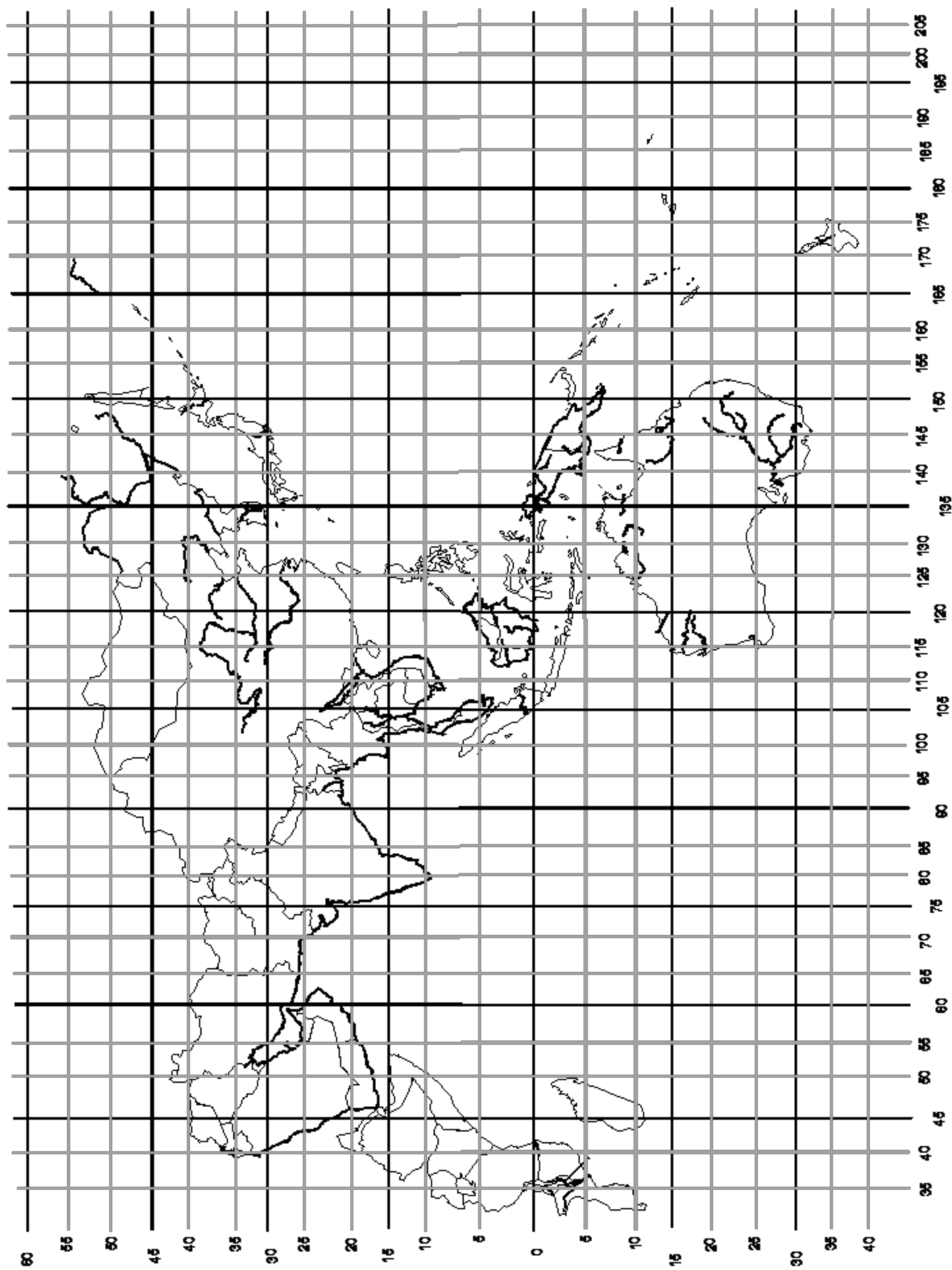
HURRICANE TRACKING DATA WITH MAP

[illegible]



TYPHOON TRACKING DATA WITH MAP

[illegible]



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

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.

[illegible]

REPORT OF FIRE BRIGADE DRILL

DEPARTMENT: _____

SHIFT: _____

TRAINER: _____

FIRE BRIGADE MET ON: _____

FIRE BRIGADE MEMBERS PRESENT:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

FIRE BRIGADE MEMBERS PRESENT:

ANNUAL TRAINING PROGRESS

[illegible]

LOSS PREVENTION AUDIT REPORT

Audit to be made at least once a month.

Facility: _____ Inspector: _____

Location: _____ Date: _____

Identify deficiencies, if any, in the following programs. Make appropriate comments concerning location, specific deficiency, and corrective action taken or required. Major changes in occupancy or construction, as they affect programs, should also be described.

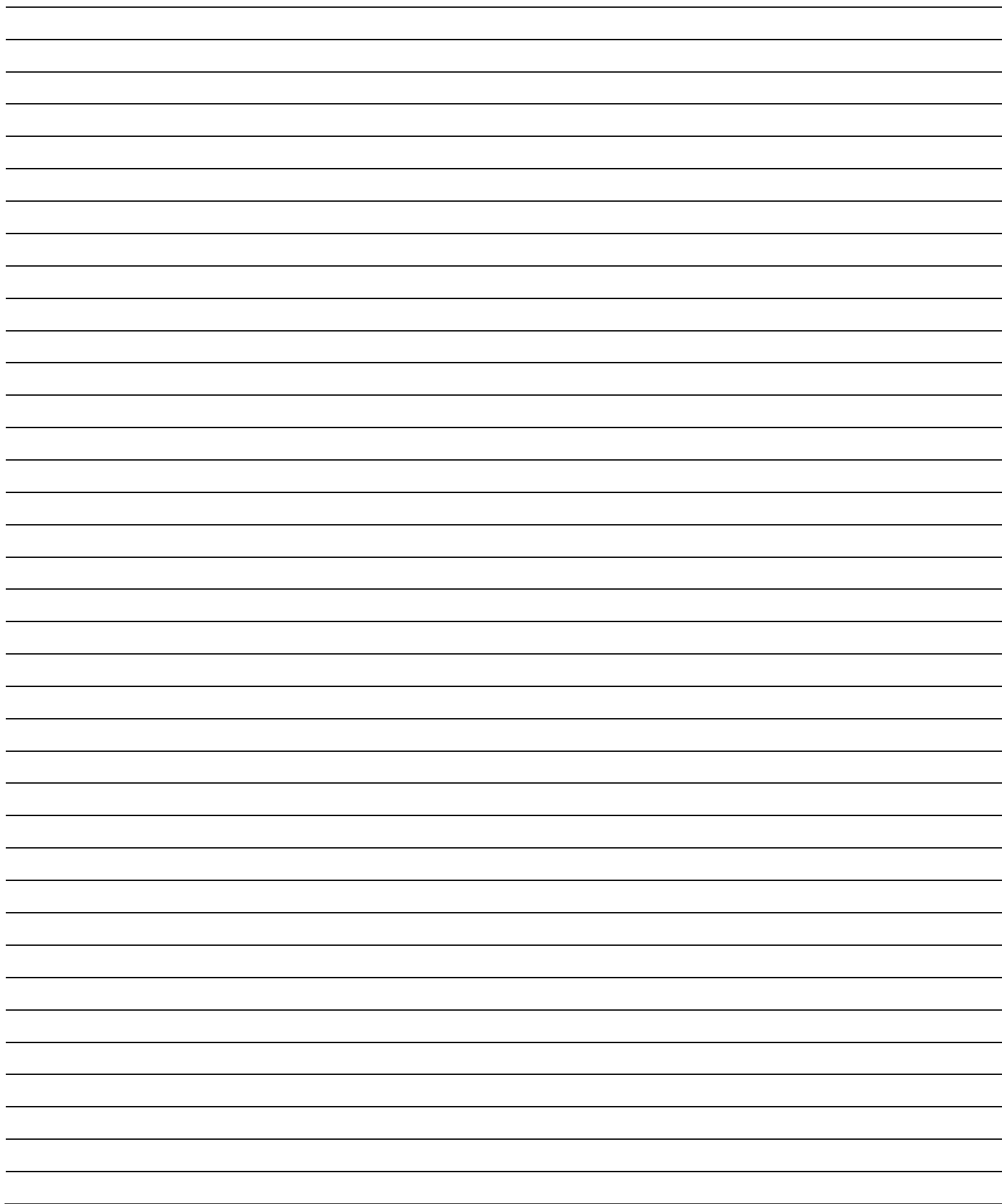
OVERVIEW PROGRAM	Deficiencies		COMMENTS
	None	Noted	
Management of Change	<input type="checkbox"/>	<input type="checkbox"/>	_____
Impairments to Fire Protection Systems	<input type="checkbox"/>	<input type="checkbox"/>	_____
Smoking Regulations	<input type="checkbox"/>	<input type="checkbox"/>	_____
Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	_____
Employee Training	<input type="checkbox"/>	<input type="checkbox"/>	_____
New Construction	<input type="checkbox"/>	<input type="checkbox"/>	_____
Insurance Company Recommendations	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pre-Emergency Planning	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hazardous Materials Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cutting, Welding, and Other Hot Work	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fire Protection and Security Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fire Protection Equipment Inspection	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hazard Identification and Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	_____

ADDITIONAL COMMENTS (identify by program number): _____

Report reviewed by: _____ Position: _____

(signed)

FILE FOR REVIEW BY AXA XL RISK CONSULTING REPRESENTATIVE



FIRE PROTECTION EQUIPMENT INSPECTION REPORT

Facility: _____ Conducted By: _____

Location: _____ Date: _____

The Following Items Should Be Checked At Least Weekly.

Any "No" response should be explained.

WATER SUPPLY, SECTIONAL, AND SPRINKLER SYSTEM CONTROL VALVES

Valve ID	Open	Shut	Sealed	Valve ID	Open	Shut	Sealed	Valve ID	Open	Shut	Sealed	Valve ID	Open	Shut	Sealed

PUBLIC WATER

Public water supply in service? ☐ Yes ☐ No _____ Pressure: _____ psi

Fire department connection accessible, caps in place, couplings free to rotate? ☐ Yes ☐ No _____

FIRE PUMPS

Pump ID	Type	Set For Auto.?		Operated Today?		Checklist Completed?		Comments
		Yes	No	Yes	No	Yes	No	

WATER SUPPLY TANKS

Tank ID	Tank Full?		Heater Working?		Water Temp.	Comments
	Yes	No	Yes	No		

AUTOMOTIVE FIRE APPARATUS

Each fully in service? ☐ Yes ☐ No _____

Checklist completed? ☐ Yes ☐ No _____

SPECIAL EXTINGUISHING SYSTEMS

System ID	Type	In Service?		Date Last Serviced	Date Last Tested	Comments
		Yes	No			

The Following Items Should Be Inspected At Least Monthly.

Any "No" response should be explained.

WET PIPE, DRY PIPE, DELUGE, AND PRE-ACTION SPRINKLER SYSTEMS

System ID	Alarm Tested?		Water Pressure			Heat Adequate?		Air/ Supv. Press.	Comments
			Static	Flow	Differential	Yes	No		
	Yes	No							

FIRE EXTINGUISHERS, INSIDE HOSE CONNECTIONS, AND STANDPIPES

Each unit in service? ☐ Yes ☐ No _____

Checklist completed? ☐ Yes ☐ No _____

HYDRANTS, HOSE HOUSES, AND MONITOR NOZZLES

Monitor Nozzle/ Hydrant ID	Accessible?		Drained?		Equipment				Comments
					Adequate?		Cond. OK?		
	Yes	No	Yes	No	Yes	No	Yes	No	

FIRE DOORS

Fire doors and shutters in good condition? ☐ Yes ☐ No _____

Automatic closing devices operable? ☐ Yes ☐ No _____

SMOKE AND HEAT, AND EXPLOSION-RELIEF VENTS

Vents operable? ☐ Yes ☐ No _____

Areas around vents unobstructed? ☐ Yes ☐ No _____

PROTECTIVE SIGNALING SYSTEMS

All systems been tested satisfactorily? ☐ Yes ☐ No _____

OTHER PROTECTION DEFICIENCIES FOUND DURING THE COURSE OF EACH INSPECTION SHOULD BE REPORTED BELOW:

	Yes	No	If "Yes," note location.
Stock within 36 in. of sprinkler heads?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sprinkler heads or piping bent?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sprinkler heads painted?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sprinkler heads or piping corroded?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sprinkler heads loaded with debris?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Items hanging from, or supported by sprinkler heads?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sprinkler heads obstructed by partitions?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Signs of internal sprinkler piping obstruction?	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fire doors blocked by materials?	<input type="checkbox"/>	<input type="checkbox"/>	_____

ADDITIONAL COMMENTS AND RECOMMENDATIONS

Report reviewed by: _____ Position: _____
(signed)

Has prompt action been initiated? ☐ Yes ☐ No _____

SUGGESTED CHECKLIST FOR FIRE PUMP INSTALLATIONS

Facility: _____ Conducted By: _____

Location: _____ Date: _____

Pump Identification: _____ Type of Driver: _____

Make of Pump: _____ Location of Pump: _____

Rated Flow: _____ Rated Pressure: _____ Rated Speed: _____

When checking each fire pump, the following should be determined. A "No" answer indicates a deficiency which should be corrected.

1. For All Pump Installations

YES NO

- [illegible]

2. For Internal Combustion Engine-Driven Fire Pump

- | | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

	YES	NO
c. Did the cooling water waste properly?	<input type="checkbox"/>	<input type="checkbox"/>
d. Did the pump start on each set of batteries?	<input type="checkbox"/>	<input type="checkbox"/>
e. Is lubricating oil level correct?	<input type="checkbox"/>	<input type="checkbox"/>
f. Is engine coolant level correct?	<input type="checkbox"/>	<input type="checkbox"/>
g. Is liquid at proper level in all batteries?	<input type="checkbox"/>	<input type="checkbox"/>
h. Are battery hydrometer readings within acceptable limits?	<input type="checkbox"/>	<input type="checkbox"/>
i. Is each battery pilot light on?	<input type="checkbox"/>	<input type="checkbox"/>
j. Is battery charger functioning properly?	<input type="checkbox"/>	<input type="checkbox"/>
k. Is fuel tank full?	<input type="checkbox"/>	<input type="checkbox"/>
l. Is fuel line valve open and sealed?	<input type="checkbox"/>	<input type="checkbox"/>
m. Did low oil pressure alarm test satisfactorily?	<input type="checkbox"/>	<input type="checkbox"/>
n. Did high engine temperature alarm test satisfactorily?	<input type="checkbox"/>	<input type="checkbox"/>
o. Did interruption of AC power to the controller cause engine to start or initiate a remote supervisory signal?	<input type="checkbox"/>	<input type="checkbox"/>
p. Did the overspeed-shut-down-device-position switch work properly?	<input type="checkbox"/>	<input type="checkbox"/>
q. Is interruption-of-battery-power alarm working properly?	<input type="checkbox"/>	<input type="checkbox"/>
r. Is controller locked, and are keys accessible to authorized personnel?	<input type="checkbox"/>	<input type="checkbox"/>
s. Was engine run for 30 minutes?	<input type="checkbox"/>	<input type="checkbox"/>
t. Did engine achieve and maintain proper operating temperature?	<input type="checkbox"/>	<input type="checkbox"/>
3. For Electric Motor-Driven Fire Pump	<input type="checkbox"/>	<input type="checkbox"/>
a. Was pump run for 7 minutes?	<input type="checkbox"/>	<input type="checkbox"/>
b. Did motor achieve and maintain proper operating temperature?	<input type="checkbox"/>	<input type="checkbox"/>
c. Is the circuit breaker in the closed position?	<input type="checkbox"/>	<input type="checkbox"/>
d. Is the "power available" light on?	<input type="checkbox"/>	<input type="checkbox"/>
4. For Steam-Driven Fire Pump	<input type="checkbox"/>	<input type="checkbox"/>
a. Is proper supply of lubricants on hand and is lubrication system operable?	<input type="checkbox"/>	<input type="checkbox"/>
b. Is the steam chest or casing at operating temperature?	<input type="checkbox"/>	<input type="checkbox"/>
c. Are steam traps operating, or was condensate manually drained?	<input type="checkbox"/>	<input type="checkbox"/>
d. Is sufficient steam pressure maintained at all times?	<input type="checkbox"/>	<input type="checkbox"/>
e. Was a "slip test" made?	<input type="checkbox"/>	<input type="checkbox"/>
f. Was the pump run for 5 minutes?	<input type="checkbox"/>	<input type="checkbox"/>
g. While operating at rated speed, was the vibration within acceptable limits?	<input type="checkbox"/>	<input type="checkbox"/>

Deficiencies or other comments: _____

SUGGESTED AUTOMOTIVE FIRE APPARATUS CHECKLIST

Facility: _____ Inspector: _____

Location: _____ Date: _____

Make of Apparatus: _____ Type of Apparatus: _____

When checking automotive fire apparatus, the following should be determined. A "No" answer indicates a deficiency which should be corrected.

	YES	NO
1. Are the terminals on the batteries clean and the cable clamps tightly connected?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is each battery clean and securely mounted?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is battery liquid at proper level?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is each battery hydrometer reading within acceptable limits?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the trickle or automatic charger operating?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the crank case oil level correct?	<input type="checkbox"/>	<input type="checkbox"/>
7. Is the coolant level in the radiator correct?	<input type="checkbox"/>	<input type="checkbox"/>
8. Were the brakes pressure-tested by operating the foot pedal?	<input type="checkbox"/>	<input type="checkbox"/>
9. Were the air brakes bled to remove condensate?	<input type="checkbox"/>	<input type="checkbox"/>
10. Was the apparatus started and driven for 10 minutes and then allowed to idle for an additional 20 minutes at not less than 1000 rpm?	<input type="checkbox"/>	<input type="checkbox"/>
11. Is the engine speed (rpm) maintained when the ignition switch is either in the A or B position?	<input type="checkbox"/>	<input type="checkbox"/>
12. Is fuel tank full?	<input type="checkbox"/>	<input type="checkbox"/>
13. Is booster tank water level full?	<input type="checkbox"/>	<input type="checkbox"/>
14. Is foam tank full?	<input type="checkbox"/>	<input type="checkbox"/>
15. Are tools, appliances, and portable equipment in proper location and in working condition?	<input type="checkbox"/>	<input type="checkbox"/>
16. Are lights, sirens, and horns operable?	<input type="checkbox"/>	<input type="checkbox"/>
17. Is engine clean, and free of an accumulation of oil and moisture around its wiring or electrical equipment?	<input type="checkbox"/>	<input type="checkbox"/>
18. Is the underside of the apparatus clean?	<input type="checkbox"/>	<input type="checkbox"/>
19. Is each tire properly inflated and free of cuts, breaks, and foreign objects?	<input type="checkbox"/>	<input type="checkbox"/>
20. Are special extinguishing systems such as dry chemical, carbon dioxide, and Halon in working order?	<input type="checkbox"/>	<input type="checkbox"/>
21. Did pump suction and discharge valves operate freely?	<input type="checkbox"/>	<input type="checkbox"/>
22. Are pump caps and couplings free to turn?	<input type="checkbox"/>	<input type="checkbox"/>
23. Are the hydraulic systems of aerials, ladders, elevated platforms, and articulating booms in proper operating condition?	<input type="checkbox"/>	<input type="checkbox"/>
24. Has regular preventive maintenance been performed on the engine, chassis, pump, and other mechanical and electrical equipment?	<input type="checkbox"/>	<input type="checkbox"/>

[illegible]

SUGGESTED FIRE EXTINGUISHER AND INSIDE HOSE CONNECTION REPORT FORM

Facility: _____ Inspector: _____

Location: _____ Date: _____

Fire Extinguishers

[illegible]

[illegible]

☐ YES ☐ NO, Explain.

[illegible]