



# Chemical Spill

APPENDIX G-1

## OUTLINE

### Emergency Plans for Hazardous Materials Spills, Leaks or Fires

#### Hazard Analysis- Hazardous Materials Spills, Leaks or Fires

- A. Points of Concern
  - B. Weather Factors
  - C. Areas Potentially Affected by the Emergency
  - D. Possible Materials Hazards
  - E. Conclusion
- II Class One (I) Emergency
- A. Action
    - 1. Evacuation
    - 2. Securing spill site
    - 3. Police
    - 4. Office of Environmental Health & Safety
    - 5. Information
  - B. Class Change of the Emergency
- III Class Two (II) Emergency
- A. Description
    - 1. Traffic Problems
    - 2. Not detectable
    - 3. Moving or Up-righting Offending Equipment

B. Action

1. Evacuation
2. Reporting Information
3. Identifying
4. Responsibilities

C. Command Post

IV Class Three (III) Emergency

- A. The Emergency
- B. Initial Investigation
- C. Campus Police
- D. Department Head- Chemistry & Physics
- E. Office of Physical Plant

V Responsibilities

- A. Director of Environmental Health & Safety
- B. Chief of Police
- C. Director of Physical Plant
- D. Department Head- Chemistry and Physics

VI Command Post

VII Telephone Directory

## **Emergency Plans for Hazardous Materials Spills, Leaks or Fires**

Unlike natural disasters, which are usually preceded by some warning, emergencies caused by hazardous materials spills, gas leaks or fires occur swiftly and with little or no warning.

With above in mind, it is easy to understand the need for a plan(s) that can be put into motion quickly and will assure, to the greatest extent possible, the protection of persons and property within the University community.

Unfortunately, due to the insidious nature of some hazardous materials, weather conditions over which we have no control, and the possibility of large gatherings of persons at any given time on campus, protection of persons and property will be difficult at best, in the event of a major emergency.

Being aware of such possibilities, it is contingent upon University officials to be familiar with the following plan(s) in an effort to do their part to assure the common good.

## **Hazard Analysis for Hazardous Material Spills or Leaks**

1. We have two points of concern on or near the campus, where the likelihood of a spill is possible.
2. Points of concern are as follows:
  - a. Oak Street (Railroad cars), high probability.
  - b. Columbus at Oak (truck), low probability.
3. There are train movements along the railroad tracks on the east side of the campus. The trains average 100-125 cars carrying a wide variety of toxic and explosive materials. There are many tank trucks (and others), moving along Oak Street.
4. Even though the main railroad tracks and city streets are generally well maintained, the probability of spill is a major concern due to the sheer weight of vehicular traffic.
5. Conclusion: Southeastern Louisiana University should prepare an emergency/contingency plan for action in the event of a hazardous material spill or leak.

## **Class One Emergency**

In the event of chemical spill, gas leak or fire in the laboratory, classroom or other building areas, the instructor, scientist, engineer or supervisor shall make a determination as to whether or not the emergency can be abated locally.

If the best judgment of the person in charge of the situation indicates a need for help, the following actions should be taken. (Remember, if one thinks the emergency is too much for him to handle, it probably is.)

1. Consider the need for evacuation— the room/lab, the floor or the building. If indeed the building must be evacuated, activate the fire alarm.
2. Shut the door or isolate the offending area.
3. Call University Police (2222) and advise them of the problem. The police will provide security and help in the orderly evacuation of persons from the building and/or maintain crowd and traffic control.
4. Call Director of Environmental Health & Safety and report the emergency. Office of Environmental Health & Safety would be greatly interested to know the following:
  - a. Who is calling?
  - b. The exact location of the emergency.
  - c. What has caused the emergency and an estimate of amount of material involved.
  - d. What, if anything, has been done to abate the emergency?

Upon receiving the above information, Director of Environmental Health & Safety will attempt to alleviate the situation or offer suggestions and advise on further action needed.

5. The person reporting the emergency should communicate with the highest interested official, i.e., dean, director, or department head. One or the other or both should meet Environmental Health & Safety Director at or near the emergency site and give them any additional information they think would be useful. A word of caution; no more than two persons should attempt to advise safety personnel. The fewer persons they have to deal with, the faster they can act and more effective they will be.

While not likely, a class one emergency could become a class two or three. Such determination will be made at the emergency site under the best advice of those individuals involved in the abatement process.

Footnote: If fire is involved in the emergency, the University Police will automatically make a call to the fire department.

## **Class Two Emergency**

A class two emergency deals with a potential problem such as: an overturned trailer/tank truck or railroad car that has not visually indicated a leak. This situation can be dangerous due to a number of factors such as:

1. Could cause a severe traffic problem.
2. A leak could be in progress not visible to the eye.
3. Moving, up-righting or shifting the vehicle could cause friction or fractures sufficient to lead to fire/explosion and/or emission of toxic fumes, gases or mists.

Upon notification of a class two emergency, University Police should reroute traffic away from the emergency site, make a determination as to possible evacuation of buildings or areas (to be passed on to the President/Vice Presidents for final approval, or if time does not permit, above should be contacted and informed as to action taken.)

If the determination is made to evacuate, it is imperative to do so in a most orderly fashion, thereby reducing the panic or near panic to the least degree possible.

Assuming the class two emergency was not caused by University personnel or equipment, those responsible for the emergency should be contacted immediately and given a detailed report of the situation and advised of their responsibility for abating and cleaning up the emergency.

All numbers, placard colors and identifying symbols affixed to the truck/trailer or railroad car should be noted and the information turned over to the Director of Environmental Health & Safety. University personnel shall not attempt to abate the emergency (except in extreme cases where common sense and judgement demand it.)

When emergency crews arrive at the site, all responsibilities for abatement and cleanup will be assumed by them.

If a command post (CP) has been established, the emergency crew leader can become part of the CP. It is quite possible a class two emergency could become a class three emergency, in which case the following section would be invoked.

### Class Three Emergency

It is entirely possible a large scale emergency on campus would be the responsibility of others, likely occurring from overturned railroad tank cars, tank or trailer trucks.

In the event of a spill, the manufacturer/distributor of the material and transporter (carrier), should be contacted immediately and held responsible for the emergency and the cleanup.

#### Initial Investigation:

It is possible an overturned railroad car or tank truck would be observed by SLU police or an individual(s) interested enough to make such observations and report same to police department or President's office.

Once the incident is reported, a police officer should be dispatched to the emergency site. He should approach it with extreme caution. Evidence of vapors or clouds, fire tank rupture should be reported. Hopefully, all of above could be done from afar.

If binoculars are available, the officer should indeed use them to register above information and pay particular attention to placards, color and wording and any numbers written on the vehicle itself.

Once this information is gathered, it should be relayed back to police headquarters, who in turn would contact the President's office and the Vice President of Administration.

University Police should start contact with those enforcement agencies construed to be needed; establish and man a command post; secure a safe zone around the emergency area; provide alternate routes; control incoming emergency vehicles; assist in any evacuation process to include clearing of buildings and moving evacuees along an established evacuation route.

The Director of Environmental Health & Safety will make contact with the Department Head of Chemistry and Physics, who will provide professional advice and council for the emergency effort along with Director of Physical Plant and others thought necessary to assist in the emergency effort.

The Department Head of Chemistry and Physics or his designee shall make a professional assessment of the situation in matters concerning complex chemical problems and provide advice to others involved in the emergency.

Office of Physical Plant shall coordinate activities with incoming public utility personnel; arrange for transportation of evacuees if needed; obtain appropriate equipment for abatement of emergency (if caused by the University), and supply technical data relative to campus buildings or utility layouts.



Because of the diversity of individuals and agencies needed to abate a large scale hazardous materials emergency, it is unlikely anyone individual can effectively control the entire effort.

It is therefore, imperative each individual and/or agency cooperate to the fullest, one with another, for the common good!

## **Director of Environmental Health & Safety**

In the event a hazardous material emergency is first reported to Environmental Health & Safety, the Director will immediately contact the Vice President of Administration and advise him of the emergency along with any other information available. Immediately thereafter, the Director will:

- Contact University Police and the Department Head of Chemistry and Physics passing on the preliminary information received.
- Commence to gather and/or develop data thought relevant to the emergency and supply same to above.
- Proceed to the emergency site or command post and make an evaluation of the serious of the emergency and advise the President/Vice President of Administration of same.
- Will act as a liaison between the emergency, police and the President/Vice President. Director will remain at the command post and process all pertinent information to be passed on to interested parties.
- Contact those concerned responsible for the emergency and give them all available information relative to it.
- Be available until the emergency has been brought to a final conclusion.

## **Chief of Police**

In the event a hazardous material emergency is first reported to the University Police Department, the Chief of Police will immediately contact Environmental Health & Safety and advise the office of the emergency, and pass along any other information available. Immediately thereafter, the Chief or his designee will:

- Contact those agencies— regulatory or enforcement— that would be interested in such a mishap.
- Set up alternate traffic routes around the emergency/impending emergency site; shall control incoming emergency vehicles; establish a command post; cause buildings in jeopardy to be evacuated and have evacuees moved along an evacuation route. Security around the emergency site, command post and any other communications center shall be the responsibility of the Chief of Police.
- Keep in close contact with the Director of Environmental Health & Safety in an effort to keep updated on the progress of the emergency.
- Be available until the emergency has been brought to a final conclusion.

NOTE: The University Police's prime responsibility is to protect Southeastern Louisiana University personnel and property, not to stop a leak, fight a fire, or right an overturned truck or railroad car.

## **Director of Physical Plant**

In the event of a hazardous materials emergency, the Director of Environmental Health & Safety shall contact the Director of Physical Plant and supply him with all available information concerning the emergency. Upon his evaluation, the Director will:

- Or will not contact the various utility services and request of them appropriate action deemed necessary to protect life and property.
- Provide transportation for those persons (faculty, staff or students) who are without or cannot get to their vehicles in an effort to leave the affected or threatened area.
- Furnish responsible parties with appropriate maps, diagrams or other information on grounds, buildings and other facilities as needed.

In the event the University is responsible for the emergency, the Director will:

- Supply through contractors or otherwise, equipment and materials necessary to help abate the problem.
- Be the liaison between the University and Vice President of Administration regarding finance to support the effort.
- Be available until the emergency has been brought to a final conclusion.

## **Department Head of Chemistry & Physics**

In the event of hazardous materials emergency, the Environmental Health & Safety Office shall contact the Department Head of Chemistry and Physics. Upon notification and being supplied all pertinent information available, the Head or his designee will:

- Make a professional assessment of the situation and supply technical advice and assistance to official interested parties.
- Be available until the emergency has been brought to a final conclusion.

## **COMMAND POST**

Emergencies unfortunately do not always happen in places of convenience. It is therefore, contingent upon us to be prepared to establish a command post under various conditions, perhaps not in a building.

A command post (CP) could be simply a patrol car with appropriate communications equipment, or several vehicles from different agencies parked side by side, e.g., University Police, City Fire Department, City Police. The latter would certainly give the CP broad communication ability that is highly desirable.

The CP, depending upon what caused the emergency, should be strategically located. If one was faced with the possibility of a poison cloud, logically the CP should be positioned away from the direction of prevailing winds.

A rule of thumb is 2,000 - 3,000 feet from the emergency; however, keep in mind, 20,000 gallon metal tanks have been blown as far as 1,700 feet on occasion covering men and equipment with flaming liquid, well beyond 2,000 feet.

If possible, the CP should be positioned to allow a clear view of the emergency site, at least by binoculars.

The area around the CP should be roped off to the general public; traffic in an out should be kept at a minimum.

## TELEPHONE DIRECTORY

549-2222	University Police
549-2157	Environmental Health and Safety Department
549-3333	Physical Plant Services
549-2159	Department of Chemistry & Physics