

LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER

EXTERNAL CHEMICAL SPILL

Purpose: To provide procedures for management of an external chemical spill that could negatively impact the hospital.

Policy: If a chemical spill should occur outside the facility that has the potential to adversely affect the hospital, the following plan will be implemented as conditions dictate by appropriate administrative personnel

Medical School - Chancellor or his designee
Hospital - Hospital Administrator or his designee

Should the situation have the potential to cause serious injury or death from either toxic or flammable/explosive vapors, a quick and thorough analysis of the situation is essential. Our initial warning and information will probably come from the Shreveport Fire Department or the Shreveport Police Department. The first information we receive will be very limited until the city can call in the Hazardous Spill Division to analyze the situation. During this interval (time and conditions permitting) we should assemble our own team of in-house expertise to evaluate from the institution's standpoint the seriousness of the spill and what our response should be.

IN-HOUSE ASSESSMENT TEAM

Chancellor's Office
Hospital Administrator
Medical Staff
Safety Office
Chairman of Disaster Committee
Director of Physical Plant

Many variables enter into the decision-making process in the assessment of the potential seriousness of a major chemical spill:

1. Chemical spilled (amount, toxicity, flammability, etc.)
2. Humidity
3. Wind direction
4. Temperature
5. City's ability to confine, control, and neutralize the spill

Chemical vapors heavier than air would concentrate first at the first floor and basement levels (elevator shafts, dumb waiters, trash and laundry chutes, etc.).

Some vapors are flammable as well as toxic. Sources of ignition should be extinguished if concentrations are within the flammable or

explosive range. Merely turning a light switch on or off could create a spark resulting in a fire or explosion.

I. Evacuation

If the situation is potentially life-threatening and we have the time, our initial response should be to evacuate. Refer to Evacuation Plan.

A. Priority of Evacuation

1. Ambulatory patients, outpatients, visitors, students, and nonessential personnel
2. Nonambulatory patients not on life support
3. Nonambulatory patients on life support

If we cannot evacuate or only limited evacuation is possible, we must be prepared to remain and address the problem with in-house resources.

II. Hospital Response

A. As many patients as possible should be relocated to K-wing.

1. We can more easily secure this area from the invasion of toxic and/or flammable vapors.
 - a. fewer windows
 - b. fewer elevator shafts
 - c. fewer outside entrances
2. Easier management of patients and personnel if they are centralized
3. Water supply more secure

B. Essential services lost upon relocation:

1. Pharmacy
2. Dietary
3. Laundry
4. Switchboard
5. Clinical Lab

III. Action To Be Taken In-House

A. Shut-down of ventilation system - exhaust and supply

- ### B. All outside doors to be secured - one door designated as emergency entrance and University Police stationed there to control traffic

- C. Seal all possible openings that would allow vapors to enter K-wing
 1. outside doors
 2. windows
 3. roof - laundry chute penetration
 4. building intake and exhaust grills

- D. If vapors are flammable or explosive, in addition to the above
 1. Shut down boilers in Power Plants
 2. All sources of ignition (kitchen, Clinical Lab, etc.) shall be extinguished

IV. Medical School

- A. If possible, all personnel shall be evacuated.
- B. If evacuation is not possible, all personnel will remain in their work areas.
- C. All sources of ignition shall be extinguished when vapors are flammable.
 1. Laboratory processes will be shut down (bunsen burners, equipment, all gas cylinders shut off at the source, etc.).
- D. All roof intake and exhaust grills shall be sealed.
- E. Fume hood sashes shall be shut.
- F. All outside doors shall be secured. One will be designated as emergency entrance by administrative staff and a University Police Officer will be stationed there to control traffic.