

## Chapter 4 General Emergency Information

### 4.0 GENERAL EMERGENCY INFORMATION

#### 4.1 Where to Find Specific Information

This section provides general information about the IBT's emergency response programs.

- For emergency information relating to chemical spills and exposures, see Section 6.0.
- For emergency information relating to biological spills and exposures, see Section 7.0.
- For emergency information relating to exposure to bloodborne pathogens, see the *Bloodborne Pathogens Program*.

The Houston Fire Department High Rise Plan requires that the individual who discovers the fire make the phone call to 911. Please see the Crisis Management Plan for a complete description of the Fire Evacuation Plan. It is the responsibility of every IBT Building Occupant to be familiar with the plan and their responsibilities during an emergency.

For emergencies other than fires, the general emergency notification phone number for the IBT is 713-677-7464. This is the Security Desk in the first floor Lobby. This number is answered 24 hours a day. Inform the Security Officer on Duty of your emergency and the type of assistance you need.

#### 4.2 IBT Crisis Management Plan

The IBT Crisis Management Plan formalizes responses for several types of emergencies, which may occur at the Institute. In emergency situations, the role of the Security Officer is to evaluate the emergency from their command post in the lobby, communicate the situation to appropriate response personnel by implementation of the emergency plan, and provide site security if required. The Safety Office will advise and assist with hazardous-material spill control and cleanup. When the ability to respond adequately to an emergency is beyond the capability of IBT personnel, Security will call the local fire department or local hazardous materials response team. The Safety Office or other members of the Crisis Management Team may direct Security to make this call.

#### 4.3 Building Emergency and Evacuation Plans

Crisis Management Team Members, Physical Plant and / or City of Houston Emergency Response personnel (Fire, Police, Hazard Materials Response, etc.) are authorized to initiate evacuation of buildings.

Please see the Crisis Management Plan for a complete description of the General Evacuation Plan.

#### 4.4 Power Failure

In the event of a power failure in the IBT building, an evacuation will be ordered. Evacuation is required because the ventilation system will cease to function. Although an emergency generator will maintain emergency lighting, elevator service, air supply to critical locations, laboratory air conditioning and chemical fume hoods will not operate.

Expect a delay between power outage and generator start-up; there will be a period of darkness before the emergency lights are turned on. Be prepared by keeping flashlights in the work area.

Once there is adequate emergency lighting, cap any open chemical containers and close gas cylinders, perform an orderly shutdown of equipment and processes, and close the chemical fume hood sash. If refrigerators, freezers, or cold rooms contain heat-sensitive materials, consider using dry ice to keep these materials cold. Leave immediately when the area has been secured and can be left unattended. Contact Security and / or the Safety Office if there is a possibility of an uncontrolled reaction in a process that cannot be shut down.

Do not depend on safety showers or eyewashes. This safety equipment relies on a booster pump that will not be operational. Emergency telephones and manual pullbox stations should continue to operate properly.

#### 4.5 Incident (Accident) Reporting

Laboratory incidents that shall be reported to the Safety Office (SO) include: major spills, fires, or injuries. Laboratory incidents shall be investigated. The Safety Office requires that an *Incident Report* be completed by the person(s) involved in the incident. The person's supervisor is expected to sign the completed form and state what steps will be taken to prevent future such incidents from occurring. The form is then submitted to SO for subsequent review by the Chemical and Biological Safety Committee. The supervisor shall be responsible for ensuring that corrective action to prevent repeat incidents is undertaken.

The SO may also prepare an investigation report. Investigations are made and reports written not only to satisfy certain laws but also to learn the cause of the problem and what changes in procedures, equipment, or training should be made to avoid other accidents.

#### 4.6 IBT Safety Office Assistance

The IBT Safety Office will respond to chemical and biological spills. However, if the spilled material is not volatile and there is no immediate fire or toxic hazard, cleanup may be done by laboratory employees (under direction of the principal investigator or SO). Chemical spill supplies are available on each of the laboratory floors (floors 4 – 8). These supplies are located in a white box on the wall near the four (4) elevators on the west side of the building. If supplies are used out of this box, please inform the Safety Office so they may be restocked. In situations involving a fire or toxic hazard, SO will advise on evacuation or other precautions to protect persons or property in the immediate area.

## 4.7 Personal Injury

The IBT has a minor medical emergency response team which can be activated by contacting Security at x 7464. The team is trained in minor first aid, CPR and the use of an automatic defibrillator.

### 4.7.1 Burn from Fire

If your clothing catches fire, decide very quickly how to put out the fire and minimize burns. The following methods are in order of preference:

1. Get under a safety shower or other water source if one is immediately at hand.
2. If a safety shower is not immediately available, stop, drop, and roll to extinguish the fire, holding your hands over your face to shield your face and eyes.
3. Roll up in a fire blanket if one is nearby. If a fire blanket is used, remove it immediately after the flames are extinguished to prevent further injury from heat buildup.

Assess the condition of the skin's burn area. If skin is not broken, run water over the burn area to remove heat. If skin is broken, apply a dry, sterile dressing over the wound. Seek medical attention as soon as possible.

### 4.7.2 Inhalation

A person exposed to smoke or fumes shall be removed to uncontaminated air. Any victim overcome by smoke or fumes shall be treated for shock (see Section 4.7.3). Give cardiopulmonary resuscitation (CPR) if necessary and if trained personnel are available. If a person needs to be rescued from a contaminated area, evaluate the possibility of harm to the rescuer before anyone enters or remains in the contaminated area without proper protective equipment. Obtain a copy of the MSDS for the chemical and send it with the victim to the medical treatment facility. If a person is suspected of inhaling cyanides, administer amyl nitrite.

### 4.7.3 Shock

Shock is likely to develop in any serious illness or injury. Shock is a condition in which the circulatory system fails to deliver blood to all parts of the body. When the body's organs do not receive adequate blood supply, they fail to function properly.

The following signals are indicators that the victim is suffering from shock.

- Restlessness or irritability (often the first sign that the body is experiencing a significant problem)
- Altered consciousness
- Pale, cool, moist skin
- Rapid breathing
- Rapid pulse

In caring for shock, have the victim lie down. Help the victim rest as comfortably as possible to minimize pain and thereby slow the progression of shock. Control any external bleeding. Help the victim maintain a normal body temperature and avoid chilling. There is an emergency survival blanket located in the front section of the oxygen tank container located on the following floors: 3<sup>rd</sup>, 5<sup>th</sup>, 7<sup>th</sup>, 11<sup>th</sup>, and in the mail room in the first floor lobby. Elevate the victim's legs about 12 inches unless you suspect broken bones or possible head, neck, or back injuries. If in doubt, leave the patient lying flat. Do **NOT** give the victim anything to eat or drink although (s)he may complain of thirst. Obtain medical assistance promptly since shock cannot be managed by first aid alone.

#### 4.7.4 Ingestion

If a person ingests a toxic chemical, determine, if possible, what was ingested and notify the emergency medical personnel. Contact the Poison Control Hotline at (800) 942-5969 for emergency response information for the specific compound.

Inform the hotline personnel of the first aid treatment shown on the container label or the MSDS. The MSDS should accompany the victim to the medical treatment facility.

#### 4.7.5 Puncture or Cut

When treating a victim with a puncture wound or cut, wear personal protective equipment (e.g., gloves) to minimize exposure to human blood, body fluids, or other chemical or biological contamination. Apply a pressure pad or clean cloth firmly to the wound. Raise the wounded area above the level of the heart to slow the bleeding. For severe bleeding or spurting, very firmly press the pressure pad directly on the wound and apply pressure at the applicable body pressure point above the wound to stop the flow of blood. In a severe injury, keep the victim warm, calm, and oriented to prevent shock.

#### 4.7.6 Needlesticks

Needlesticks or other accidents involving skin punctures by a chemical or biological agent shall be reported to the supervisor immediately. Appropriate medical testing, treatment, and follow-up may be indicated and shall be provided as appropriate. When a needlestick occurs, do not wait to report the incident and obtain medical attention. See the *Bloodborne Pathogens Program* for more information on needlestick exposures to human blood and other potentially infectious human materials.

#### 4.7.7 Dermal Contact

If a chemical spills on a person, the first goal is to remove the chemical from the person's skin as soon as possible, without spreading it onto yourself. For

chemicals that can cause burns, the stronger the chemical and the longer the contact, the worse the burn. The chemical continues to burn as long as it remains on the skin. For all chemicals except hydrofluoric (HF) acid, flush the skin under a continuous source of water for at least 15 minutes. If a large area of the skin was exposure, use the emergency drench showers located in the

hallways. HF burns should only be flushed with water for at most five minutes. Flushing after HF exposure shall be followed immediately with treatment as discussed below.

Remove contaminated clothing while the person is under the shower stream, taking care not to spread contamination from the clothing onto more of the person's skin. If the clothing must be pulled over the head or down along the legs to be removed, cut it away with first aid kit scissors instead. Many safety showers are equipped with curtains to give privacy to the victim. Don't let modesty keep you from removing contaminated clothing that remains against skin.

Do not treat the burn. Do not puncture any blisters that may develop. Allow trained medical personnel to administer treatment after flushing is complete.

In the special case of hydrofluoric (HF) acid exposure, you will be expected to provide treatment. That explains why flushing with water is curtailed. There should be minimal delay between exposure and treatment. Once the spill area has been thoroughly flushed, apply calcium gluconate antidote gel immediately. This application cannot wait for emergency personnel to respond. The gel must be administered quickly to prevent severe damage to bone and tissue or potential fatality. Any lab working with HF shall maintain a stock of gel.

#### 4.7.8 Eye Contact

Should a chemical enter a person's eye(s), wash the eye(s) with water for at least 15 minutes. After washing, seek medical treatment. Keep the affected eye (if only one has been contaminated) lower than the unaffected eye to prevent the spread of contamination. For HF splashes in the eye, flush with water for five minutes and then irrigate with a 1% solution of calcium gluconate gel.

Be aware that particulates and liquids can become trapped in the conjunctiva where they may continue to cause damage. The entire interior of the eye must be flushed as well as the exposed cornea. Irrigator loops are available that can ensure flushing under the eyelids. A "buddy" in the lab is vital to the injured person to help find the eyewash, call for help, keep the eyes open under the water stream, and prevent the person from rubbing the eye(s) and aggravating the damage.

### 4.8 Workers Compensation

The Texas A&M University System Workers' Compensation Insurance Program was created by the 52nd Legislature of the State of Texas to provide reasonable and necessary medical coverage and disability payments to employees who sustain injuries or occupational disease while in the course and scope of their employment.

The program statutory authority is embodied in Chapter 502 of the Texas Labor Code. Funding for this self-insured program is provided through an assessment against the total payroll of each member of the System. All costs associated with the program, including benefits to employees and administrative expenses, are paid from these funds.

Direct administration of the Workers' Compensation Insurance Program is provided by the Director of Risk Management and Safety who, along with the Assistant Director for Workers' Compensation Insurance coordinates the program throughout the System, establishes uniform System-wide procedures and records, and acts as the liaison with other State of Texas agencies, including the Texas Workers' Compensation Commission.

**Note:** It is essential that any employee who sustains an on the job injury or illness must inform their supervisor immediately.