

# GENERIC GUIDE FOR LABORATORY EMERGENCY PREPAREDNESS

Please be aware that the unpredictable nature of hurricanes does not always lend itself to an orderly progression as outlined in the Alert Phases listed below. Due to this uncertainty, alert levels may be skipped. Therefore the suggested actions to be taken at the time of a specific alert may require you to complete tasks listed for previous alert levels.

## Supplies

- Before going through the checklist make sure you have the following supplies on hand to complete the job.
- Break resistant plastic containers with screw type closures. These are secondary protective containers and must be large enough so breakable primary containers can be placed inside and secured. They are used to protect against the release of harmful materials into the environment. These include water reactive, radioactive, and bio hazardous materials.
- Large garbage bags and smaller sealable bags. These will be used to cover electrical equipment and data from possible water damage.
- Labels, to place on all containers and bags for identification.
- Markers, to write on the labels.
- Tape, to secure container screw top lid and tie off garbage bags.
- Assure that the proper chemical spill supplies are readily available for the types of materials you have in your lab. These materials should be readily available and stored in a designated location, at least 2 feet above floor level.

## **Phase I - Alert (Code Green)**

Initial notification of a potential threat to the University. The alert phase does not proceed forward until the threat becomes imminent and a likely time of occurrence has been established.

- Assure that the following signs are posted on the outside of the entrance doors, with current information.
  - Names and office phone numbers of the principle investigator / lab manager, alternate, EH&S, Emergency Services.
  - Laboratory Hazard Identification Chart.
  - Appropriate signage, if the laboratory contains (Radioactive Materials, Lasers, Carcinogens, Bio hazards, Reproductive hazards, etc.).
- Remove all items from window ledges.

- Assure that all containers housing chemical, radio-active, and bio hazardous, liquids, are securely capped, properly labeled and securely stored above floor level.
- Check all hazardous waste storage areas (chemical, bio hazardous, radiological) to assure all containers are properly labeled and securely capped.
- Assure that all compressed gas cylinders are properly secured and stored in an up-right position.
- Assure that compressed gas cylinders, not in use, have their valve caps tightly secured.
- Remove chemicals, not in immediate use, from laboratory benches and shelves and store in the appropriate chemical storage area.
- Assure that incompatible chemicals are stored separately from one another.
- Chemical spill supplies are available and stored in a dry readily available location (at least 2 feet above the floor). *These will be very important in the post occurrence phase.*
- If your experimental rig is going to take more than 24 hours to safely shut down and secure, start the process now.

### **Phase II - Critical Alert (Code Blue)**

Starts when the occurrence is expected within the next 48 hours.

- Assure that all windows are properly closed and secured.
- Disconnect and secure all electrical equipment, not in present use, from water exposure.
- Assure aisle spaces are unobstructed.
- Leave all floors and counter space clear of equipment, papers, chemicals, etc.
- Place all containers of water reactive, radioactive, or bio hazardous wastes inside plastic break resistant containers (secondary container).
- Fill out and attach a label, identifying contents, on secondary containers.
- Place all documents, records; computer disks CDs, etc., in plastic leak proof containers and store in a secure area away from windows and above floor level (if on first floor).
- Laboratories working with animals must make arrangements for protective care.
- If your experimental rig is going to take more than 12 hours to safely shut down and secure, start the process now

### **Phase III - Watch (Code Yellow)**

Starts when the occurrence is likely to occur within 36 hours or is of such magnitude that an instantaneous Code Yellow Alert is issued.

- Immediately end all experiments in progress and stop all use of chemicals, radiological, bio hazardous agents. Safely shut down and secure your experimental rig.
- Unplug and cover all non-critical electrical equipment.
- Protect equipment in areas with windows from hazards associated with broken glass, rain and wind.
- Cover each piece of electrical equipment with large plastic bags or suitable plastic. Do not cover ventilation vents and/or fan motors which could result in overheating and possible fire. CAUTION: Electronic equipment must be turned off, and unplugged from the wall outlet, before covering with a garbage bag or plastic. Failure to do so could result in overheating and possible fire.
- Shelf and secure all glassware, microscopes, GCs, etc.
- Containerize, seal, label and store all hazardous, biological and radioactive wastes in their designated secure storage locations.
- Remove all materials and equipment from inside ventilated hoods. These materials should be properly containerize, label, secured, and stored in their designated areas.
- No hazardous materials should be left on countertops, open shelves, or on floors.
- All small, breakable containers and objects should be removed from counter tops and shelves and stored.
- Remove regulators and secure valve caps on all compressed gas cylinders which have not been previously secured.
- Assure that all of these compressed gas cylinders are properly secured and stored in an up-right position.
- Check all utility valves to assure they are closed.
- Lower the temperature in refrigerators and freezers to preserve contents in the event of a prolonged power failure.
- Lock or tape shut all refrigerators, freezers, incubators, etc.

### **Phase IV - Warning (Code Orange)**

Period immediately before the occurrence (likely within 24 hrs).

If you have not yet vacated the facility – you may need to seek the safest and closest protected area such as a protect stairwell, an enclosed room under sturdy furniture. If you are caught in such a situation, try to assure you have a fully charged cell phone or access to a phone close at hand.

Bear in mind that cell phones and switches are not recommended in the face of a bomb threat.

### **Phase V - Occurrence (Code Red)**

Time of Occurrence.

Stay tuned to radio/television stations for information.

### **Phase VI - Recovery**

Begins when the President, the DEM or the authority with emergency management responsibility for the specific occurrence releases the “ALL CLEAR” signal.

- Visually inspect the laboratory through the room or door windows to determine lab condition before entering.
- If appropriate, conduct a damage assessment of the lab. A checklist is provided to guide you through.
- Submit damage assessment report with photo documentation to EH&S and begin the process of completing claim forms provided in the addendum of this document.
- Contact EH&S to report damage or material spills.

### **Suggestions**

*Laboratories with outside windows should develop a secure area for the storage of water reactive chemicals and biological agents. These secure areas should be in the inner rooms of the building, preferably above the first floor and below the top floor.*

*Laboratories that use radioactive materials and other controlled substances should place these materials in their designated secure storage location as approved by EH&S. If these areas are in labs with outside windows, and/or on the first floor, the materials should be placed on shelves, inside the designated secured radioactive storage cabinet, at least 2 feet above floor level. Inventory records should be treated as **VITAL RECORDS**.*