



**UNIVERSITY OF
HOUSTON - VICTORIA**

Business Continuity Plan Hurricane Plan

Information Numbers

(361) 570-4848 or Toll Free 1-877-970-4848

University of Houston-Victoria

Website: <http://www.uhv.edu>

Emergency Information: <http://www.uhvemergency.info>

APPROVAL & IMPLEMENTATION

**University of Houston-Victoria
Business Continuity Plan
Hurricane Plan**

THIS HURRICANE PLAN IS HEREBY APPROVED. THIS PLAN IS EFFECTIVE IMMEDIATELY AND SUPERSEDES ALL PREVIOUS EDITIONS.

Signature on File _____
PRESIDENT

August 31, 2016
DATE

Signature on File _____
EMERGENCY, SAFETY & RISK MANAGER

August 31, 2016
DATE

**UNIVERSITY OF HOUSTON-VICTORIA
HURRICANE PLAN
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SECTION 1 HURRICANE PLAN

I. Purpose

This plan is intended to provide for courses of action, triggered by a specific timeline of events beginning 72 hours from expected landfall of a hurricane. The plan attempts to provide adequate time to minimize hazards, loss of property and provide for the protection of employees and students.

II. Policy

- A. This plan and timeline has been reviewed by the President's Cabinet.
- B. If there are conflicts between this Hurricane Plan and the general Business Continuity Plan (BCP), the BCP should prevail.
- C. The activities and responsibilities in this plan are in addition to those departmental and individual responsibilities within the basic Business Continuity Plan.
- D. The safety of students and employees is the highest priority. All personnel, with the exception of a ride-out crew, if required, will evacuate the affected site when hurricane winds are imminent, whether or not shut down procedures have been completed.
- E. Affected campuses will close at the direction of the President (or designee) upon notification that a storm poses an imminent threat. The campus should close within 4 hours of that notification.
- F. Facilities on the UHV campus have not been designated as shelters by an Emergency Management Center or the American Red Cross and therefore, all persons with the exception of the ride-out team (if any) must seek shelter elsewhere.
- G. The President's Conference Room in the University Center building will serve as the headquarters for the implementation of this plan. An alternate meeting location is Conference Room "A" in the University West building.

III. Hurricane Hazards and Preventive Measures

A hurricane is a cyclonic storm which, as a unit, normally travels at about 8 to 12 miles per hour and has a small center area of relative calm with an area of high wind velocity revolving counterclockwise about this central area. Hurricane winds are defined as those having a force greater than 74 mph; however, they have been recorded well over 180 mph.

A wind blowing against a building produces a positive pressure on the windward side and negative pressure, or suction, on the opposite side of the building. A common occurrence in hurricanes is the breaking of windows or opening of doors on the windward side of a building. Through such openings, the wind enters the building and creates a positive pressure on the underside of the roof or on the inner side of the wall. This force in combination with external suction pressure often carries off roofs or forces out the sides of buildings. It is important, therefore, that all access areas be secured as strongly as possible.

Electrical hazards due to downed transmission wires are a major cause of hurricane deaths. Extreme care must be exercised to avoid fallen wires.

Flying debris from damaged buildings and loose objects picked up and carried by the wind are responsible for much of the storm damage. Personnel must remain under cover during winds of hurricane velocity. It is required that all loose lumber, sheet metal, drums, pallets, outside trash containers, etc., be secured. Roofs of buildings in particular must be checked and drain heads cleared.

Damage caused by the entry of water into buildings through leaky doors, windows, and roofs, broken windows and backed up storm drains can be expected. Sandbagging, lifting items from the floor and covering equipment are common remedies.

IV. Responsibilities

Refer to the Business Continuity Plan which sets forth specific Communication and Recovery Team responsibilities related to any emergency event.

V. Hurricane Season (Hurricane Season begins June 1)

The campus Emergency, Safety & Risk Manager will send out a general communication to all employees at all sites to announce the beginning of hurricane season and request that departments review the Business Continuity Plan, including the Hurricane Plan, and employee assigned roles and responsibilities within the plan.

The Facilities Services Department commences pre-season hurricane preparations. **Refer to Section 2, Facilities Services Hurricane Procedures, Hurricane Season, for detailed information and responsibilities.**

The Technology Services Department commences pre-season hurricane preparations. **Refer to Section 3, Technology Services Hurricane Procedures, Hurricane Season, for detailed information and responsibilities.**

VI. Hurricane Conditions (University-Wide Timeline of Activities)

Due to the unpredictable nature of these storms it is extremely difficult to base an action plan on a storm's speed and course. Therefore, the actions listed below are based on the Victoria City/County Office of Emergency Management recommendations and Victoria being located within the National Hurricane Center's "Cone of Probability". The action plans listed below are ***intended as decision making guidelines and may be adjusted accordingly*** as more information on the storm's track becomes available to the Emergency Response Team (ERT).

A. When the Victoria area is located within the National Hurricane Center's 5-day Cone of Probability, the following actions should be considered:

1. The Emergency, Safety & Risk Manager will alert the President's Office of the potential hurricane threat.
2. The President's Office places the Emergency Response Team on alert status and notifies UHS.
3. The President's Office will send a general advisory to the university community informing them that the campus is monitoring a storm. The Public Information and Emergency Response (PIER) system is a communication option for sending the advisory to faculty, staff and students.
4. All campus departments should review the Hurricane Plan and any specific departmental assigned roles and responsibilities for this timeframe.

B. When the Victoria area is located within the National Hurricane Center's 3-day Cone of Probability or if any part of the Texas coast is in the projected storm path, the following actions should be considered:

1. The President's Office calls a meeting of the expanded ERT to discuss strategies for preparing for the potential hurricane.
2. The Telecommunications Analyst communicates Emergency Numbers to faculty, staff and students.
3. Facilities Services continues the campus hurricane preparations. **Refer to Section 2, Facilities Services Hurricane Procedures, Hurricane Conditions, for detailed information and responsibilities.**
4. Technology Services continues the campus hurricane preparations. **Refer to Section 3, Technology Services Hurricane Procedures, Hurricane Conditions, for detailed information and responsibilities.**

C. When the Victoria area comes under a Hurricane Watch (hurricane conditions are possible within 48 hours in the specified coastal area) the following actions should be considered:

1. President's Office, after advisement from the ERT, makes a decision on campus closure.
2. Communications begin as set forth in the Business Continuity Plan.
3. Security personnel shall report to the UHDPS Security Supervisor for assignments.
4. Director of Facilities Services continues with remaining hurricane preparation and shutdown procedures. **Refer to Section 2, Facilities Services Hurricane Procedures, Hurricane Conditions, for detailed information and responsibilities.**
5. Sr. Director of Technology Services continues with remaining hurricane preparation and shutdown procedures. **Refer to Section 3, Technology Services Hurricane Procedures, Hurricane Conditions, for detailed information and responsibilities.**

D. When the Victoria area comes under a Hurricane Warning (hurricane conditions are expected within 36 hours in the specified coastal area) the following actions should be considered:

1. All university-related functions are canceled.
2. All faculty and staff begin pre-evacuation procedures in anticipation of a campus closure.
3. All but pre-designated personnel shall leave the university upon completion of worksite preparations.
4. Employees are advised to check out with immediate supervisor prior to departing.
5. Remainder of campus should be evacuated.
6. Facilities Services initiates university shutdown procedures. Shutdown air conditioning, natural gas, water, and appropriate electrical systems.
7. Facilities Services stores all vehicles.
8. Facilities Services runs final check, verifies all appropriate utilities to all buildings have been shut off.
9. Security will perform a check of the campus to verify that all non-essential personnel have evacuated and will post campus closure signs on all building entry doors.
10. Security verifies that all personnel have left the campus and buildings are locked.

VII. Immediately After the Storm

1. University President or a designee recalls the ERT to meet on campus or at a designated site. The team shall:
 - i. Complete an initial assessment of damage to the campus' facilities.
 - ii. Establishes communications with federal/state assistance offices.
 - iii. Complete immediate survey of campus to identify and isolate safety hazards (biological, electrical, structural damage, gas leaks, etc.).
 - iv. Authorize Recovery Teams to develop and carry out activities to resume university operations.
 - v. Authorize additional personnel/services as needed.
2. Other campus personnel shall wait to report to campus until notification by immediate supervisor, through PIER or through an announcement in the local media services. For information about campus status during and following the storm, call the following numbers:

**Information Numbers:
(361) 570-4848 or Toll Free 1-877-970-4848**

3. To view the latest available emergency management communications and information visit the University of Houston-Victoria Emergency Information website hosted on the PIER system and accessible at <http://www.uhvemergency.info>.
4. Department Heads, through normal administrative channels, will initiate surveys of department status.

VIII. Hurricane Assessment and Recovery Teams

EMERGENCY RESPONSE TEAM

Refer to Business Continuity Plan

RECOVERY TEAMS

Refer to Business Continuity Plan

SECTION 2 FACILITIES SERVICES HURRICANE PROCEDURES

I. Facilities Services Director's Responsibilities

- Oversees overall hurricane disaster preparation and response coordination.
- Communicate with the Facilities Services Supervisors, Emergency, Safety & Risk Manager and the Director of Business Services.
- Procure, store and maintain in an operable condition all supplies and equipment necessary to implement and execute this plan.
- Take necessary steps to effect hurricane preparation measures as outlined in this plan.

II. Beginning of Hurricane Season

- A. Check roofs of buildings for loose debris; insure drain heads are cleared.
- B. Inspect custodial supplies for adequate materials (mops, buckets, squeegees, batteries, plastic bags, and battery-powered lights, etc.).
- C. Ensure adequate fuel (gasoline and diesel) on hand for operation of emergency generators and vehicles following storm.
- D. Inventory and replenish emergency supplies: water, masking tape, duct tape, safety tape, electrical tape, caution barrier tapes, drinking water, etc.
- E. Pre-fill sand bags and store on pallets. Ensure adequate supply of sand and bags available for additional sandbags.
- F. Trim trees and shrubbery. Make trees more wind resistant by removing diseased or damaged limbs and branches so that the wind can blow through.
- G. Ensure the availability of plywood and associated hardware for storm preparation and post-storm repairs.
- H. Obtain current list of emergency phone numbers and any changes of employee emergency evacuation locations.
- I. Verify emergency contact phone numbers and vendor phone numbers are accurate and understand any special vendor arrangements or situations.

III. Hurricane Conditions

- A. When the Victoria area is located within the National Hurricane Center's 3-day Cone of Probability or if any part of the Texas coast is in the projected storm path, the following actions should be considered:**
 - 1. Facilities Services continues with hurricane preparations.

- B. When the Victoria area comes under a Hurricane Watch (hurricane conditions are possible within 48 hours in the specified coastal area) the following actions should be considered:**

1. Facilities Services continues with hurricane preparations:
 - a. Make final check of roofs for loose debris and clear drain heads.
 - b. Distribute sandbags throughout the campus (if applicable).
 - c. Complete the removal of banners and flags.
 - d. Stow patio and picnic furniture.
 - e. Stow trash cans and other loose items.
 - f. Secure loose lumber, sheet metal, drums, and other items.
 - g. Ensure all vehicles, including Gator Utility vehicles; diesel generator, fuel storage tanks and cans are full of fuel.
 - h. Check with Biology Department labs and Greenhouse to ensure items are properly stored and secured. Electrical outages may affect perishable lab supplies.
 - i. Finalize Facilities Services personnel contact phone numbers and evacuation locations.
 - j. Identify Facilities Services personnel who would stay either on campus or in the area as a ride-out team (only if required)

C. When the Victoria area comes under a Hurricane Warning (hurricane conditions are expected within 36 hours in the specified coastal area) the following actions should be considered:

1. Facilities Services completes any remaining hurricane preparation and shutdown procedures.
2. All university vehicles delivered to Facilities Services Maintenance Shop for storage.
3. Facilities Services hurricane procedures supervisor responsibilities:
 - c. Director of Facilities Services
 - i. Notify direct reports of campus closing and initiate campus closing plan.
 - ii. Obtain authorization from the President for disconnecting utilities.
 - iii. Check-off as each facilities supervisor completes their activities.
 - iv. Distribute final emergency phone listing (including Petroleum College International).
 - v. Identify Facilities Services personnel that will remain in the Victoria area, and where.
 - d. Building Maintenance Manager
 - i. Completes removal of banners.
 - ii. Make final check of roofs for loose debris and clear drain heads.
 - iii. Open air vents leading to roofs to equalize pressure during storm.
 - iv. Coordinate raising all computers in Facilities Services offices and mechanical rooms and placing them above floor level. Cover monitors with plastic bags.
 - v. Assemble plywood, and battery powered hand tools, and hardware in the van for emergency repairs.
 - vi. Ensure all blue prints and documents are above floors.

- e. Grounds Supervisor
 - i. Collect and store signs that might be out for an event.
 - ii. Top off all gas tanks, generators, vehicles with fuel.
 - iii. Stow all picnic furniture.
 - iv. Remove all flags (U.S., Texas, and university).
 - v. Store vehicles under cover if possible - Facilities Services (4), Business Services (2).

- f. Assistant Director of Facilities Services
 - i. Collect all outside trash cans and store inside.
 - ii. Empty all refrigerators, excluding the biology refrigerators.
 - iii. Collect all trash 1 hour after closure has been ordered.
 - iv. All Venetian blinds lowered in all facilities.

- g. Facilities Services Sr. Administrative Secretary
 - i. Deliver an updated emergency phone contact list to each Supervisor and the Director of Facilities Services.
 - ii. Review emergency purchase procedures with Purchasing Manager.
 - iii. Remind office staff to change phone mail message before leaving.
 - iv. Send an e-mail to departments that they must remove all items from refrigerators that they want to save. All refrigerators will be emptied and cleaned completely.

- h. Sr. Facilities Services Events Assistant
 - i. Inform remaining groups with reservations to the MPR of cancellations.
 - ii. Assist with phone calls coming into the office and assist as necessary.

- i. Administrative Secretary
 - i. Assist with phone calls coming into the office and assist as necessary.
 - ii. Assist Director of Facilities Services with any last minute activities.

D. Hurricane landfall within 24 Hours the following actions should be considered:

1. Facilities Services prepares for university utility shutdown procedures with authorization of President. Shutdown air conditioning, natural gas, water, and appropriate electrical systems at affected sites if necessary.
2. After authorization to shutdown utilities is received, verifies utilities to all affected buildings have been properly shut down.

IV. University Building Preparation Plans

University Center Building:

- Stow all projectiles or potential projectiles on campus and/or roofs.
- Remove all banners and flags.
- Top off fuel in emergency generator.

- Top off fuel in vehicles, spare cans, nurse tanks, and equipment.
- Store vehicles and equipment.
- Communicate with external custodial service about campus operations.
- Ensure emergency numbers for vendors and personnel are up to date and sent to the Director of Facilities Services.
- Empty all refrigerators, excluding biology refrigerators.
- Collect all trash after closure of building has been initiated.
- Lower all Venetian blinds.
- Charge all battery powered equipment.
- Assemble plywood, battery powered hand tools, and hardware in the van for emergency repairs.
- Identify who is remaining in the local area and those exact locations in the event of a communication system shut-down.

University West Building:

- Stow all projectiles or potential projectiles on campus and/or roofs.
- Remove all banners and flags.
- Empty all refrigerators, excluding biology refrigerators.
- Collect all trash after closure of building has been initiated
- Lower all Venetian blinds.

Facilities Services Building:

- Stow all projectiles or potential projectiles on campus and/or roofs.
- Remove all banners and flags.
- Empty all refrigerators.
- Collect all trash after closure of building has been initiated.
- Lower all Venetian blinds.

Maintenance Shop:

- Stow all projectiles or potential projectiles on campus and/or roofs.
- Top off fuel in vehicles, spare cans, nurse tanks, and equipment.
- Store vehicles and equipment if possible.
- Assemble plywood, battery powered hand tools, and hardware in the van for emergency repairs.
- Charge all battery powered equipment.

Totah Building:

- Stow all projectiles or potential projectiles on campus and/or roofs.
- Remove all banners and flags.
- Empty all refrigerators.
- Collect all trash after closure of building has been initiated.
- Lower all Venetian blinds.

V. Custodial Department Hurricane Procedures

- All Custodial Staff are expected to aid in hurricane preparation to secure the campus.
- Assistant Director of Facilities Services will update telephone list and contact custodial staff.
- Custodial Staff is to make every effort to contact the department if off campus upon knowledge of hurricane conditions.
- Custodial Staff will call the Information Numbers and will listen to message for further instructions if off campus.
- Custodial Staff will assemble for a staff meeting to review job assignments.
- The Assistant Director of Facilities Services will supervise hurricane preparation and will assign personnel to areas as needed.
- All Custodial Staff will monitor available communication systems during this time.
- Assistant Director of Facilities Services will provide plastic can liners to cover computers, printers, and other electronic equipment.
- Distribute liners to assigned building custodial lead personnel.
- All custodial doors will be unlocked or left open so that building staff may have access to closet.
- Make sure that all Custodial equipment (buffer, vacuum cleaner, etc.) is moved to the second floor custodial room.
- Make certain that mop bucket, wringer, and mops are available.
- Will help in sand bagging all entrances as needed on doors identified (if applicable).
- Will help in picking up debris and other loose objects.

VI. Safety Precautions for Checking and Entering Damaged Buildings

- Check for structural damage. Make sure the building is not in danger of collapse. If you are unsure of the structural integrity of the building, do not enter. A building inspector, architect, engineer or professional contractor may need to inspect the building before you enter.
- Inspect buildings for occupants that might have been displaced or injured during an event. Assess injuries, if applicable, and notify medical personnel if time permits before moving injured or unconscious persons.
- If you must enter a building at night, carry a battery-operated flashlight. Do not use a flame as a source of light. Do not smoke.
- Turn off any outside gas lines at the tank or meter. Let the building air for several minutes to remove gas fumes or odors if necessary.
- Look for obvious electrical problems, shorts or broken wires. Stay clear of broken wires and obvious problems. Have a licensed electrician inspect and repair any damage to your electrical system.
- Watch for loose ceiling material.
- Open as many doors and windows as possible to remove moisture, odors, and flammable or toxic gases if necessary. If windows are stuck tight, take off window

strips and remove the entire window sash. If a door is stuck, drive out the door's hinge pins with a screwdriver and hammer, and remove the door.

A. FLOOD DAMAGE

Flooding from tropical cyclones is a major threat to people well inland from the coast. Very slow moving tropical storms and hurricanes can produce tremendous rains of 20 to 30 inches or more, resulting in disastrous flooding.

Foundations:

If you are not qualified to judge the stability of a foundation, hire a contractor to make this inspection. Examine foundations and supports for undermining. If walls or foundations have settled or cracked, stay clear and call a professional contractor.

Walls and Ceilings:

1. Wash out mud, dirt and debris as soon as possible. Clean walls and floors before mud and silt dries.
2. Start cleaning from the top floor or upper limits of flooding and work down toward the first floor.
3. Check walls with a level or plumb bob.
4. Brace walls as necessary.
5. To speed up drying of flooded or wet studding and insulation, remove all siding strips or plaster from upper and lower parts of the walls. Do not repaint walls until they are completely dry. This could take several months if the building has been flooded. Wet insulation is probably ruined and should be discarded.

B. WIND DAMAGE

Hurricane force winds of 74 mph or more can destroy buildings, mobile homes, trees and power poles. Debris, such as signs, roofing materials, siding, and small items left outside, become flying missiles in a hurricane. The strongest winds occur in a region of the hurricane called the eyewall. Wind gusts in the right side of the eyewall are the most destructive. Hurricane force winds can be felt as far as 150 miles inland from the coast.

Wind damage to buildings is not always readily apparent. After a severe windstorm, hurricane, or tornado, examine all buildings for hidden damage. Undetected damage could weaken a structure, creating a hazard. Prompt repair, even if only temporary, is usually less expensive in the long run.

Roof:

1. Inspect the roof. Check the roof on the inside and outside. Don't check the roof from the ground unless the structure has severe damage to the walls or foundation, or it is too steep or too high to climb. If a ground inspection is necessary, use binoculars. When checking the roof, look for:
2. Damaged or missing roof materials or equipment. Thoroughly inspect roof ridge, gable ends, and eaves.

3. Use plastic sheeting or roll roofing for temporary repair on solid deck roofs covered with asphalt shingles, wood shingles, or roll roofing. Use patching compounds to repair minor leaks. Look for loose screws on metal roofing. Inspect the entire roof, with particular attention to gable ends, eaves, and ridge cap. If the screws are loose, screw them back in as soon as possible. If the screws don't hold when screwed back in, take the screws out and replace with oversized screws. Use aluminum screws on aluminum roofing, and steel screws on steel roofing. Replace damaged metal roofing.
4. Potential leaks. On a sunny day, go outside the building, close the doors, and inspect the roof carefully. While looking for holes in the roof, inspect the ridge, gable ends, and eaves, for possible structural separation.

Foundation:

Inspect the foundation. The plate should not be separated from the studding where the foundation meets the walls. On block foundations, inspect the mortar joints to make sure the block with the plate bolt hasn't separated from the wall. On stone or concrete foundations, check to see that the plate bolts are not loose.

Interior:

Inspect the interior of the building for structural damage. Check the framing for ridge separation, loose knee braces, and loose rafters or trusses where they join the walls.

SECTION 3 TECHNOLOGY SERVICES HURRICANE PROCEDURES

I. Technology Services Sr. Director's Responsibilities

- Oversees overall hurricane disaster preparation.
- Communicates with the Emergency Response Team, Technology Services senior staff, and the UH AVP for Technology Services..
- Ensure that all supplies, materials, and equipment necessary to implement and execute this plan are available and operational.
- Take steps to effect hurricane preparation measures as outlined in this plan.

II. Beginning of Hurricane Season

- A. Check Server Room and Wiring Rooms in all buildings to insure that backup AC units and UPSs are functional and that all equipment is functioning as usual.
- B. Check on inventory of supplies and materials (plastic bags for covering PCs, etc.).
- C. Check inventory of flashlights, batteries, fans, masking tape, tools, restoration hardware etc.
- D. Obtain current list of emergency phone numbers and possible changes of location (in case of evacuation) for Technology Services staff.
- E. Verify emergency contact numbers and vendor phone numbers are accurate.

III. Hurricane Conditions

A. When the Victoria area is located within the National Hurricane Center's 3-day Cone of Probability or if any part of the Texas coast is in the projected storm path, the following actions should be considered:

- 1. Technology Services continues with hurricane preparations.
 - a. Manual verification of off-site (UH DR based) backup of all local systems
- 2. Systems Analyst stays in contact with Office of the Provost – Academic Affairs, and post messages in Blackboard online course system as directed.

B. When the Victoria area comes under a Hurricane Watch (hurricane conditions are possible within 48 hours in the specified coastal area) the following actions should be considered:

- 1. Technology Services continues with hurricane preparations:
 - a. Final update of Technology Services personnel contacts numbers and evacuation locations.
 - b. Identify Technology Services personnel who would stay either on campus or in the area as a ride-out team (only if required)
- 2. Systems Analyst stays in contact with Office of the Provost – Academic Affairs, and post messages in Blackboard online course system as directed.

C. When the Victoria area comes under a Hurricane Warning (hurricane conditions are expected within 36 hours in the specified coastal area) the following actions should be considered:

1. Technology Services completes any remaining hurricane preparation and shutdown procedures.
2. Technology Services hurricane procedures supervisor responsibilities:
 - a. Sr. Director of Technology Services
 - i. Notify direct reports of campus closing and initiate Technology Services closing plan.
 - ii. Obtain appropriate wording from the ERT Team or Marketing for initial switchboard, PIER, social media and website messages for the shutdown.
 - iii. Check-off as each Technology Services manager completes their activities.
 - iv. Identify which Technology Services personnel will remain in the area, and where.
 - b. Network Planning & Development Manager
 - i. Check backup AC and UPSs for final time.
 - ii. Notify LEARN and LEARN customers of campus closure.
 - iii. Insure latest backup process to off-site (UH DR) completed successfully.
 - c. User Services Administrator
 - i. Coordinate moving all computers located near windows for users requesting assistance.
 - d. Web Services Manager
 - i. Establish any requested changes to the website prior to closing.
 - ii. Issue PIER notices as requested.
 - e. Systems Analyst
 - i. Stays in contact with Office of the Provost – Academic Affairs, and post messages in Blackboard online course system as directed.
 - f. Academic Computing Services Manager
 - i. Move or cover all computers located in rooms with windows. Protect as necessary any computer lab or ITV equipment.
 - f. Telecommunications Analyst and/or Telephone Receptionist
 - i. Change the switchboard greeting to inform callers of the university's closing and anticipated re-opening.
 - g. Administrative Assistant and/or Senior Secretary
 - i. Deliver an updated emergency phone contact list to each Manager or Administrator and the Sr. Director of Technology Services.
 - ii. Remind office staff to change phone mail greeting prior to leaving.

D. Hurricane Landfall within 24 Hours the following actions should be considered:

1. Technology Services staff completes all shutdown preparations and procedures
 - a. Shutdown of IDF's not protected by redundant power
 - i. University West
 - ii. Facilities Services
 - iii. Maintenance Shop
 - iv. Library
 - v. Totah Building / Athletics Department
 - vi. Jaguar Hall / Jaguar Court / Jaguar Suites
 - b. Final verification of backup power/cooling to UHV Data Center and MDF.
 - c. Network Services sends status on UHV Networking Twitter feed. Updates should be sent at regular intervals. Minimum of every 6 hours, maximum of every hour.

SECTION 4

STUDENT RESIDENTIAL HOUSING SEVERE WEATHER PROCEDURES

I. Hurricanes

A hurricane is a tropical storm with winds that have reached a constant speed of 74 miles per hour or more. Hurricane winds blow in a large spiral around a relative calm center known as the “eye.” The “eye” is generally 20 to 30 miles wide, and the storm may extend outward 400 miles. As a hurricane approaches, the skies will begin to darken and winds will grow in strength. As a hurricane nears land, it can bring torrential rains, high winds, and storm surges. A single hurricane can last for more than two weeks over open waters and can run a path across the entire length of the eastern seaboard. August and September are peak months during the hurricane season that lasts from June 1 to November 30.

The 74 to 160 mile per hour winds of a hurricane can extend inland for hundreds of miles. Hurricanes can spawn tornadoes, which add to the destructiveness of the storm. Floods and flash floods generated by torrential rains also cause damage and loss of life. Following a hurricane, inland streams and rivers can flood and trigger landslides. Even more dangerous than the high winds of a hurricane is the storm surge – a dome of water that can be 20 feet at its peak and 50 to 100 miles wide. The surge can devastate coastal communities as it sweeps ashore. Nine out of ten hurricane fatalities are attributable to the storm surge.

Modern meteorological equipment can now track the development and movement of a hurricane, which makes it possible to implement the emergency plan.

Apartment communities are of particular concern during hurricanes, because businesses and schools will usually be closed and the communities will be heavily occupied. Residents may voluntarily leave for safer areas. This action should be strongly encouraged. Many others, unless ordered to evacuate by authorities, will be determined to stay.

A hurricane watch is issued when a storm threatens to hit the area within 24 to 36 hours. A hurricane warning is issued when a storm is expected to hit a specific area within 24 hours.

The following information is in accordance with Hurricane Safety guidelines prepared by the Federal Emergency Management Agency (FEMA).

BEFORE A HURRICANE STRIKES

Because there is usually at least 24 hours warning of a hurricane, you will have some time to implement emergency procedures to prevent damage and injury caused by high winds and heavy rains. With the approach of a hurricane, the following tasks should be completed. Although they are divided into areas by staff position, keep in mind that the Director of Residence Life and/or Building Maintenance Manager may delegate responsibilities as they deem necessary.

DIRECTOR OF RESIDENCE LIFE & ASSISTANT DIRECTOR

- Keep a supply of fresh bottled water on hand in case the storm contaminates or damages the city's water system. Store additional drinking water in clean bathtubs, jugs, bottles and cooking pots.
- Evacuate low-lying areas. Follow the instructions provided by the National Weather Service.
- Check First Aid Kit.
- Check flashlight and radio batteries.
- Unplug all electronic equipment.

BUILDING MAINTENANCE MANAGER

- Seek out and secure outdoor objects that might blow away or cause damage to a structure. These include:
 - Trash, trash containers, and dumpsters.
 - Signs.
 - Furniture (e.g., benches, lawn furniture, tables).
 - Place pool furniture in the pool.
- Inspect roofs:
 - Pick up trash.
 - Repair loose gutters and shingles.
- Inspect storm sewers and catch basins:
 - Remove leaves, grass or other debris that may clog the drain
- Close and protect windows and glass doors:
 - Board up windows.
 - Apply masking or electrical tape (depending on the fury of the storm, wind and strength of the glass) in an "X" pattern on both sides of all glass.
- Have temporary repair materials available. These include tools, hardware, plywood, sawhorses, and barricades.

RESIDENT ASSISTANTS

- Instruct residents to move all patio and balcony items indoors. Move items into the unit if resident is away.
- Educate residents on recommended action during a hurricane. This education may take the form of a formal presentation to the community and/or one-on-one visits with residents. You may also deliver to each resident an informational flyer regarding hurricanes and recommended actions during a hurricane.

HURRICANE EMERGENCY PROCEDURES

IMMEDIATE ACTION DURING A HURRICANE

During a hurricane, the following tasks should be completed. Although they are divided into areas by staff position, keep in mind that the Director of Residence Life and/or Building Maintenance Manager may delegate responsibilities as they deem necessary in a particular situation.

DIRECTOR OF RESIDENCE LIFE

- Maintain contact with the Vice President for Enrollment Management & Student Affairs whenever the threat of a hurricane is possible.
- Periodically prepare flyers to update residents on the storm's status, including any instructions from local authorities. Give the flyers to Resident Assistants to distribute door-to-door.
- When instructed to do so by the local authorities, direct residents to designated shelters or basement areas.

BUILDING MAINTENANCE MANAGER

- If required by local authorities, turn off gas and electricity. If you must turn off any utilities, contact the Director of Facilities Services to inform him of the situation.
- Stand by and be prepared to take any action required by local authorities and/or respond to any facilities needs that arise during the course of the storm.

RESIDENT ASSISTANTS

- Distribute informational flyers provided by the Director of Residence Life in order to keep residents apprised of the storm's status, including any instructions from local authorities.

ALL STAFF

- Frequently listen to radio and television updates of the storm's status.
- Remain indoors.
- Stay away from windows and doors, even if they are covered.
- Do not be fooled by the eye of the hurricane. If it passes directly overhead, there will be a lull in the wind for some time (several minutes up to one half hour or more).
- Wear a hard hat, if available.
- Follow evacuation procedures from the local officials.
- Avoid using the phone, except for emergencies. Local authorities need first priority in using telephone lines.

EVACUATION PROCEDURES

EVACUATION PREPARATION

Keep the following supplies available in order to be prepared for a water emergency and/or evacuation:

- Water extraction machine.
- Wet vac.
- Generator with wheels.
- Extra gasoline.
- Submersible sump pump and hose.
- Extension cords.
- Flashlights.
- Batteries.
- Rain jackets.
- Rubber boots.
- Pre-cut, numbered plywood for unit windows.

IN THE EVENT OF AN EVACUATION

If instructed to do so by the local weather service, a full community evacuation may be necessary. When evacuating the community, be sure to take these steps in order to reduce possible damage, theft, and/or vandalism.

The Director of Residence Life will be responsible for directing staff members to complete the following tasks:

- Install pre-cut, numbered plywood in windows.
- Secure all power tools.
- Back up all computer data.
- Unplug all computers.
- Raise first floor furniture on blocks.
- Remove all key rings, master/sub master keys, and key logs.
- Coordinate with the courtesy patrol company responsible for monitoring the community. Provide the company with contact names and phone numbers of management and maintenance staff.
- Contact fire alarm and security alarm monitoring companies to let them know that you are evacuating the property.
- Conduct a unit-by-unit check to ensure a full evacuation.
- While conducting unit checks, remove all food from refrigerators and dispose of the food in the outside trash dumpster/compactor.
- Be sure that maintenance staff have their radios with them, along with extra batteries.

- If directed by local authorities, the affiliated institution, or the Director of Facilities Services, chain the controlled access gates in the locked position until notified that residents may return.

ACTION AFTER A HURRICANE

After a hurricane, the following tasks should be completed. Although they are divided into areas by staff position, keep in mind that the Director of Residence Life and/or Building Maintenance Manager may delegate responsibilities as they deem necessary.

DIRECTOR OF RESIDENCE LIFE

- Consult with the Vice President for Enrollment Management & Student Affairs.
- Report broken gas, sewer, or water mains to the power companies.
- Replenish emergency supplies.

BUILDING MAINTENANCE MANAGER

- Inspect the property and appoint clean-up crews.
- Open clogged lines and drains.
- Do not turn on the electricity until you are instructed that it is safe to do so.

ALL STAFF

- Care for injured persons. Call for emergency assistance, if required.
- Monitor weather information and be prepared for additional severe weather, high winds, etc. Keep listening to public broadcasts until the area is declared safe.
- Be extremely careful as you move around a property damaged by a hurricane. Watch for live electrical wires, shattered glass, splintered wood, etc.
- Wear a hard hat, if available.
- Wear sturdy shoes.
- Prepare for possible flooding.

INSPECTING UTILITIES

- Check for gas leaks. If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can. Call the gas company. If you turn off the gas for any reason, it must be turned back on by a professional.
- Look for electrical system damage. If you see sparks or broken or frayed wires, or if you smell something burning, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call the Building Maintenance Manager for assistance. Do not touch the circuit breaker panel while standing in water.
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid the water from the tap.

II. Storms (Violent or Electrical)

Spring usually brings with it rapidly changing weather patterns including violent electrical and/or thunderstorms.

The following actions will help prevent damage to the property caused by high wind and heavy rain.

- Secure outdoor furniture, small signs and trash containers to prevent them from blowing away or blowing into windows, cars, etc.
- Make sure all common areas and amenity doors are securely closed.
- Turn off and unplug computers, fax and copy machines, television sets and all other electrical equipment. Limit telephone use.

Before storm season arrives, make sure the following is completed:

- Make sure gutters and downspouts are clean and free of debris.
- Prune tree branches away from roofs.

III. Tornados

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm (or sometimes as a result of a hurricane) and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and wind-blown debris. Tornado season is generally March through August, although tornadoes can occur at any time of year. They tend to occur in the afternoons and evenings: over 80 percent of all tornadoes strike between noon and midnight. Tornadoes are most common east of the Rocky Mountains, and although they can occur in any state, Texas has been hit the most.

Tornadoes are especially deadly, because they often strike with little warning. A tornado watch is issued by the National Weather Service when tornadoes are possible in your area. Remain alert for approaching storms. This is the time to remind staff and residents where the safest places within their units are located, and listen to the radio or television for further developments. A tornado warning is issued when a tornado has been sighted or indicated by weather radar.

PREPARING FOR A TORNADO

- Help residents identify safe places to take shelter in their units. For residents who live on upper floors, help them coordinate with neighbors in lower-level units for safe places to take cover during a tornado.
- Contact your local fire department or affiliated institution for assistance in conducting annual tornado drills.
- Keep a highway map nearby to follow storm movement from weather bulletins.
- Have a weather radio with a warning alarm tone and battery backup to receive watches and warnings.
- NWS watches and warnings are also available on the Internet. Go to the NWS Home Page at www.nws.noaa.gov for services or www.weather.gov for weather and forecasts.
- Listen to radio and television for weather information.
- Ensure that the First Aid Kit is stocked with essential supplies.
- Keep emergency tools, including a battery powered weather radio and a portable radio, flashlight, and extra batteries.
- Educate residents on recommended action during a tornado. This education may take the form of a formal presentation to the community and/or one-on-one visits with residents. You may also deliver to each resident an informational flyer regarding tornadoes and recommended actions during a tornado.

DURING A TORNADO

- Listen to local radio or television stations for updates.
- Call the Vice President for Enrollment Management & Student Affairs to inform him/her of the situation.
- Advise residents to seek shelter immediately in small, interior, lower-floored rooms without windows; in hallways on the lower floors; in rooms constructed with reinforced concrete, brick, or block with no windows; or in the bathroom or other protected areas away from windows. Tell them to crouch down and protect their heads and necks with their arms.
- If an evacuation plan has been pre-arranged with the host university/college campus, implement it immediately.
- Open windows slightly so pressure will not build and shatter the glass.

AFTER A TORNADO

- If anyone around you has been injured, call 911 for assistance.
- Look out for broken glass and downed power lines.

- Watch out for live electrical wires and dangerous debris.
- Inspect the property and organize clean-up crews.
- Consult with the Vice President for Enrollment Management & Student Affairs and have them contact the Risk Manager who will contact the insurance company if damage has occurred that needs to be assessed by the adjuster.
- Take pictures and/or video in the event the adjuster will be delayed in arriving on the scene.
- Advise the residents of the situation and the plans for clean up.
- Call the appropriate utility companies if there are any electrical, gas or water problems on the property.
- Complete and send a copy of the Incident Report to the Vice President for Enrollment Management & Student Affairs within 12 hours of the incident.

SECTION 5 SEVERE WEATHER AND INFORMATION LINKS

For more information on how to prepare for a hurricane, visit the following websites:

Texas Governor's Division of Emergency Management: www.txdps.state.tx.us/dem

The National Weather Service Hurricane Center: www.nhc.noaa.gov/

The U.S. Department of Homeland Security: www.ready.gov/

The American Red Cross: www.redcross.org/

OneStorm: www.onestorm.org

Hurricane Maps and Brochures

Division of Emergency Management

<http://www.txdps.state.tx.us/dem/hurricane.htm>

National Oceanic and Atmospheric Administration (NOAA)

- <http://www.noaa.gov> - National Oceanic and Atmospheric Administration (NOAA)
- <http://www.nws.noaa.gov> – National Weather Service (NWS)
- <http://www.spc.noaa.gov/> – NOAA Storm Prediction Center
- <http://www.srh.noaa.gov/wgrfc> – NWS West Gulf River Forecast Center
- <http://www.nws.noaa.gov/emwin> - NWS Emergency Managers Weather Information Network (EMWIN)
- http://www.cpc.ncep.noaa.gov/products/expert_assessment/threats.html - Climate Prediction Center graphic of weather threats to the U.S. for the next few days

National Hurricane Center

www.nhc.noaa.gov

NWS Southern Region

www.srh.noaa.gov

NWS / Brownsville

www.srh.noaa.gov/bro

NWS / Houston / Galveston

www.srh.noaa.gov/hgx

NWS Storm Prediction Center

www.spc.noaa.gov

NWS / Corpus Christi

www.srh.noaa.gov/crp

NWS / Lake Charles, LA

www.srh.noaa.gov/lch

United States Department of Homeland Security

www.fema.gov

The main page to the **Federal Emergency Management Agency (FEMA)**, offers preparedness information, children's Internet information and links to other locations and access to current FEMA data.

www.uscg.mil/news/stormcenter

U.S. Coast Guard Storm Center

Texas Road Conditions

www.dot.state.tx.us/hcr/main.htm

The best way to know travel conditions is to check the **Texas Department of Transportation's** website.

Tropical Weather Research

www.met.tamu.edu/research/trmm.html

Tropical weather research from **Texas A&M University**

typhoon.atmos.colostate.edu/forecasts/

Dr. Gray's Forecast at the Tropical Meteorology Project from **Colorado State University**

Volunteer Organizations

www.redcross.org

Each year, the **American Red Cross** responds immediately to more than 67,000 disasters, including house or apartment fires (the majority of disaster responses), hurricanes, floods, earthquakes, tornadoes, hazardous materials spills, transportation accidents, explosions, and other natural and man-made disasters.

More Severe Weather and Information Links

- <http://www.weather.com> – The Weather Channel
- <http://www.txdps.state.tx.us> – Texas Department of Public Safety
- <http://www.dot.state.tx.us> – Texas Department of Public Safety road conditions
- <http://www.victoriatx.org> – City of Victoria

<http://www.newscenter25.com> – KAVU News center 25

Communications and Emergency Information Links

- <http://www.uhv.edu> – University of Houston-Victoria
- <http://www.uhvemergency.info/go/site/1523/> - University of Houston-Victoria
- <http://www.uhemergency.info/go/site/1093/> - University of Houston
- <http://www.uhclemergency.info/go/site/1522/> - University of Houston-Clear Lake
- <http://www.uhdemergency.info/go/site/1553/> - University of Houston-Downtown

SECTION 6 HURRICANE AWARENESS

I. Definitions to Know

TROPICAL DEPRESSION: An organized system of persistent clouds and thunderstorms with a closed low-level circulation and maximum winds of 38 mph or less.

TROPICAL STORM: An organized system of strong thunderstorms with a well defined circulation and maximum sustained winds of 39 to 73 mph.

HURRICANE: An intense tropical weather system with a well defined circulation and sustained winds of 74 mph or higher.

TROPICAL CYCLONE: A general term used to describe a tropical depression, tropical storm, or hurricane.

II. Watches and Warnings

HURRICANE/TROPICAL STORM WATCH: An announcement that hurricane conditions (sustained winds of 74 mph or higher) are *possible* within the specified area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane **Watch** is issued 48 hours in advance of the anticipated onset of tropical-storm-force winds.

HURRICANE/TROPICAL STORM WARNING: An announcement that hurricane conditions (sustained winds of 74 mph or higher) are *expected* somewhere within the specified area. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane **Warning** is issued 36 hours in advance of the anticipated onset of tropical-storm-force winds.

FLOOD WATCH: This product informs the public and cooperating agencies of *possible* flooding. If you are in a **Watch** area, check flood action plans, keep informed and be ready to act if a warning is issued or you see flooding.

FLOOD/FLASH FLOOD WARNING: A flood/flash flood **Warning** is issued for specific communities, streams, or areas where flooding is imminent or in progress. Persons in the warning area should take precautions **IMMEDIATELY!**

III. National Hurricane Center Products

PUBLIC ADVISORIES offer critical hurricane watch, warning and forecast information.

FORECASTS/ADVISORIES provide detailed hurricane track and wind field information.

IV. Saffir-Simpson Hurricane Scale

The *Saffir-Simpson Hurricane Scale* is a 1 to 5 rating based on the hurricane's intensity. All hurricanes are dangerous, but some are more so than others. The way storm surge, wind and other factors combine determines the hurricanes destructive power. This scale estimates potential property damage. Category 1 is a minimum hurricane and Category 5 is the worst case scenario. Hurricanes reaching Category 3 and higher are considered *major* hurricanes because of their potential for loss of life and damage. Category 1 and 2 storms are still very dangerous and warrant preventative measures. For more information on the Saffir-Simpson Hurricane Scale, go to www.nhc.noaa.gov/aboutsshs.shtml.

Saffir-Simpson Hurricane Scale

Scale Number (Category)	Sustained Winds (MPH)	Types of Damage	Hurricanes
1	74-95	Minimal: Damage primarily to shrubbery, trees, foliage and unanchored mobile homes. No real damage to other structures.	Irene, 1999 Jerry, 1989
2	96-110	Moderate: Some trees blown down. Major damage to exposed mobile homes. Some damage to roofing materials, windows and doors.	Floyd, 1999 Kate, 1965
3	111-130	Extensive: Large trees blown down. Mobile homes destroyed. Some structural damage to roofing materials of buildings. Some structural damage to small building.	Alicia, 1983 Betsy, 1965
4	131-155	Extreme: Trees blown down. Complete destruction of mobile homes. Extensive damage to roofing materials, windows and doors. Complete failure of roof on many small residences.	Hugo, 1989 Carla, 1961
5	>155	Catastrophic: Complete failure of roofs on many residences and industrial buildings. Extensive damage to windows and doors. Some complete building failure.	Camille, 1969 Andrew, 1992