

HAZARDOUS WASTE STORAGE CONTINGENCY PLAN & EMERGENCY PROCEDURES - MMC

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1.0 INTRODUCTION

This contingency plan has been prepared by Florida International University Environmental Health & Safety (EH&S), which is responsible for hazardous waste management, facility operations, spill control, and emergencies. The Florida International University Modesto Maidique Campus is classified as a Large Quantity Generator of hazardous waste with the **DEP/EPA ID Number FLD980839518**.

2.0 PURPOSE

The contingency plan is designed to minimize the health and environment effects from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. The plan will be implemented in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

3.0 CONTENT OF CONTINGENCY PLAN

The contingency plan describes the actions facility personnel will take in an emergency situation. The plan also describes arrangements agreed to by University Police, Miami Dade County Fire/Rescue, Miami Dade Emergency Response, and Kendall Regional Medical Center. Contractors and state emergency planning committees will be contacted as needed to coordinate emergency services.

Included in the plan are lists of the following:

- The names and phone numbers (office, home, cell) of all persons qualified to act as emergency coordinators. This list shall be kept up-to-date.
- The emergency equipment that is available at the Modesto Maidique Campus.

4.0 DISTRIBUTION OF CONTINGENCY PLAN

Copies of the contingency plan will be kept at the following locations:

- Environmental Health and Safety Office – Academic Health Center 4 (AHC4) Room 121
- Environmental Health and Safety Office – Campus Support Complex (CSC) Room 146
- University Police, Modesto A. Maidique Campus

Additionally, the contingency plan will be provided to the following organizations.

- Florida Department of Environmental Protection (DEP)
3301 Gun Club Road
West Palm Beach, FL 33406
- Miami Dade Fire Rescue/Emergency Response
9300 NW 41st Street
Miami, FL 33178
- Kendall Regional Medical Center
11750 SW 40th Street
Miami, FL 33175
- South Florida Local Emergency Planning Committee
1 Oakwood Blvd, Suite 250
Hollywood, FL 33020

5.0 REVISIONS

The contingency plan will be reviewed and/or revised annually or when any of the following situations occur:

- Applicable regulations are revised.
- The plan fails in an emergency.
- The facility changes in its design, construction, operation, maintenance or other circumstances.
- The list of emergency coordinators has changed.
- The list of emergency equipment has changed.

Upon revision of the contingency plan, it will be redistributed as specified above.

6.0 WASTE FACILITY DESCRIPTIONS

FIU has a single central hazardous waste storage location for the Modesto Maidique Campus. The waste storage room is equipped with sprinkler protection, fire alarm and smoke detection system, a HM-200 model fire extinguishing package, and explosion rated walls. These systems are monitored by the FIU Police Department. In the event of an alarm, a signal is sent to FIU Public Safety who then calls the local fire department, FIU Police Department and FIU Environmental Health and Safety. The hazardous waste storage staging area (AHC4-123) has a 10-pound ABC fire extinguisher and the hazardous waste storage room (AHC4-123B) is equipped with a FM 200 clean agent fire suppression system.

6.1 Hazardous Waste Central Accumulation Area Location: AHC4 Room 123B

The AHC4 hazardous waste central accumulation area is located on the first floor of the building in room 123B. The building entrance is located at door 120W3 in the vehicle loading dock, shown in Appendix A. The building can also be entered via door 120W1 from the sidewalk on the opposite side, also shown in Appendix A. Access into the waste room AHC4-123B is accessible by way of room AHC4-123, referred to as the staging room. This staging room houses all emergency and spill control equipment listed below. The AHC4 building is located along the northeastern boundary of the campus. Hazardous waste central accumulation room 123B is approximately 156 square feet.

6.2 Types and Amounts of Materials Stored

The following ranges of hazardous chemicals and materials are routinely stored in the wastes storage rooms at any given time. A computerized database and waste logbooks containing detailed listings of wastes in the rooms are kept at the EH&S offices at both BBC and MMC.

Building	Waste Type	Range	Units
AHC4	Acutely toxic	1-20	Liters
	Oxidizer	0-120	Liters
	Corrosive	0-86	Liters
	Flammable	0-177	Liters
	Reactive	0-170	Liters

6.3 Emergency & Spill Control Equipment

The following emergency and spill control equipment is available in the AHC4 Room 123 staging room. A variety of other emergency response equipment is available at the EH&S Office in CSC 146 should it be needed.

Location	Physical Description	Capabilities
AHC4 123	Tyvek chemical resistance coveralls	Protect body from minor chemical hazards
AHC4 123	Safety goggles	Protect eyes from chemical splashes
AHC4 123	Nitrile/neoprene gloves	Protect hands from chemical exposures
AHC4 123	Clay absorbent (i.e.Oil-Dry, Kitty Litter)	Absorbent for organic solvents, oil spills
AHC4 123	Acid/base absorbent socks, pillows, and mats	Spill control for acid and base spills
AHC4 123	Oil/coolant/solvent/water socks, pillows, and mats	Spill control for oil, coolant, and solvent spills
AHC4 123	32" rubber hip boots and plastic booties	Offers foot and leg protection from chemical spills
AHC4 123	Vermiculite	drum packing material, chemical absorption
AHC4 123	Bio-Fluids absorbent	Absorb biohazardous spills
AHC4 123	Acid neutralizer and spill kit	Neutralizes acid spills
AHC4 123	Caustic neutralizer	Neutralizes base spills
AHC4 123	Formaldehyde spill kit (includes loose absorbent and wipers)	Cleans up small spills of formaldehyde
AHC4 123	Mercury clean-up kit (includes absorbent powder and wipers)	Clean up small mercury spills
AHC4 123	Solvent adsorbent	Cleans up solvent spills
AHC4 123	Radioactive-wash or equivalent	radioactive decontamination of smooth surfaces
AHC4 123	Brooms, brushes, scoops, spatulas, & dust pans	Clean up spilled solids.
AHC4 123	Drums, buckets, jugs, totes	Containerize wastes for disposal
AHC4 123	Polyethylene bags	Collect and dispose waste
AHC4 123	Impermeable red biomedical waste bags	Dispose biomedical waste
AHC4 123	Duct tape	Seal spill waste in bag
AHC4 123	ABC Fire extinguishers	Fight small fires
AHC4 123	Eyewash & safety shower	Irrigate eyes/drench body upon chemical exposure
AHC4 123	Building fire alarm system	Notify building occupants to evacuate building
AHC4 123	First aid kit	Provides medical assistance for small wounds

7.0 EMERGENCY RESPONSE ARRANGEMENTS

7.1 Police Services

FIU has its own state-certified law enforcement agency, which acts as first responders to any emergency on the Modesto Maidique Campus. The FIU Police Department has entered into a county-wide Mutual Aid Agreement with all other Miami-Dade County law enforcement agencies. Assistance from any of these agencies may be requested as provided for in the agreement. In the event of a major emergency, the FIU Police will determine the extent of additional resources required and request assistance from the appropriate agency or agencies.

7.2 Fire, Rescue and Hazardous Materials Response Services

Fire, rescue, and hazardous material response are provided primarily by Miami-Dade Fire/Rescue. Tours of the Research, teaching and campus support facilities, including the waste storage room (AHC4-123) is offered annually to the Miami-Dade County Fire Rescue Departments and the FIU Campus Police. When explosives, dried picric acid, organic peroxides, shock-sensitive chemicals and chemical mixtures are involved in an emergency, the FIU Police will request assistance from the Miami-Dade Fire Rescue Hazmat Unit, which is equipped with equipment for the removal and disposal of such materials.

7.3 Secondary Emergency Response Contractor

FIU will utilize the services of SWS Environmental Services in accordance with the provisions contained in the Florida Department of Environmental Protection (FDEP) contract. SWS Environmental Services provides emergency response to hazardous materials incidents and has access to the personnel and equipment necessary to respond to a large-scale release of hazardous materials at FIU. The Miami Dade County Fire/Rescue Hazmat Team will be the primary responder and will stabilize the incident. Should the need for a large scale clean up arise, the University will execute an expedited purchase order with SWS Environmental Services.

7.4 Kendall Regional Medical Center

Immediate treatment of injured personnel is available at the Kendall Regional Medical Center's 24-hour Emergency Center. The hospital is located approximately 5 miles South of the University's Modesto Maidique Campus. The hospital has been familiarized with the properties of the hazardous wastes handled at our facility and the types of injuries that could result from fires, explosions, or releases of these materials at our facility.

8.0 EMERGENCY PROCEDURES

In the event of an imminent or actual emergency situation, the emergency coordinator (or their designee when the emergency coordinator is not available) must immediately:

- Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
- Notify appropriate State or local agencies with designated response roles if their help is needed, and
- Follow the Emergency Operations Flow Chart (Appendix C).

When there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and a real extent of any released materials. They may do this by

observation or review of facility records or manifests and, if necessary, by chemical analysis.

Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment outside the facility, findings must be reported as follows:

- If the assessment indicates that evacuation of local areas may be advisable, they must immediately notify appropriate local authorities. They must be available to help appropriate officials decide whether local areas should be evacuated (see Evacuation Plans); and
- The emergency coordinator must immediately notify the National Response Center at **800-424-8802** and local authorities if the release of hazardous waste threatens human health or the environment *outside* the facility. The report must include all information on the “Hazardous Materials Incident Reporting Form” in Appendix D.
- The emergency coordinator must implement the contingency plan and submit a written report to the Florida Department of Environmental Protection **within 15 days** if the release of hazardous waste threatens human health or the environment *inside* the facility. The report must include all information on the “Hazardous Materials Incident Reporting Form” in Appendix D.
- If hazardous waste stored in a tank is released in any amount above 1 pound, a phone call to the EPA must be made within 24 hours and a written report must be submitted to the EPA within 30 days.

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous wastes at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, where it is appropriate.

Immediately after an emergency, the emergency coordinator must provide for treatment, storage, or disposal of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

The emergency coordinator must ensure that, in the affected area(s) of the facility:

- No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and
- All emergency equipment listed in the contingency plan is cleaned and fit for its intended use

before operations are resumed.

The owner or operator must notify the Florida Department of Environmental Protection and appropriate state and local authorities that cleanup procedures have been completed before operations are resumed in the affected area(s) of the facility.

9.0 EVACUATION PLANS

In the event of a fire, explosion, or release of hazardous wastes from a waste storage facility, the following procedures are to be followed.

The Emergency Coordinator and University Police shall determine whether any nearby buildings on FIU property need to be evacuated, or whether the occupants of those buildings should be sheltered-in-place. The Emergency Coordinator and University Police will notify the occupants of those buildings of the need to evacuate or shelter-in-place.

The Emergency Coordinator, through University Police, shall advise emergency responders from the appropriate jurisdictions as to whether any buildings or areas off campus should be evacuated or sheltered-in-place.

9.1 Waste Facility Evacuation Procedure

- Activate the waste facility fire alarm system and/or notify waste facility occupants to exit the building by voice.
- The primary evacuation route shall be through the nearest non-affected doorway leading to the exterior of the building.
- The alternate evacuation route shall be through any other available doorway leading to the exterior of the building.
- Once outside the building, evacuees shall move away from the building in a safe direction (*i.e.* upwind from the hazard).
- Call 911 from a safe location using landline or cell phone.

9.2 Evacuation of Nearby Buildings on FIU Property Procedure

- The Emergency Coordinator and university police officers shall verbally instruct building occupants to leave or activate the fire alarm system.
- The primary evacuation route shall be through the nearest non-affected doorway leading to the exterior of the building.
- The alternate evacuation route shall be through any other available doorway leading to the exterior of the building.
- Once outside the building, evacuees shall move away from the building in a safe direction (*i.e.* upwind from the hazard).

9.3 Sheltering-In-Place in Nearby Buildings on FIU Property Procedure

- The Emergency Coordinator and university police officers verbally instruct building occupants of the need to shelter-in-place. This will be done in person or by telephone.
- Police officers or other volunteers will be placed at exit ways to instruct people to stay in the building.
- The building will be sealed to the extent practical and necessary and air handling equipment will

be turned off or switched to 100% recirculation, if possible and as appropriate.

- Occupants will be notified verbally, in person or by telephone when it is safe to go outside.

9.4 Evacuation or Sheltering-in-place of Off Campus Building Procedure

- The Emergency Coordinator will be available to the appropriate emergency responders to help decide whether off campus facilities may need to be evacuated or sheltered-in-place.
- The appropriate emergency responders will be responsible for instructing affected individuals to evacuate or shelter-in-place.

9.5 Traffic Control and Site Security Procedure

- Traffic control and security of the affected areas on the FIU Modesto Maidique Campus will be established by the FIU PD with assistance from the Emergency Coordinator and local jurisdictions.
- Traffic control and security of any affected areas off campus will be established by the appropriate local jurisdiction with assistance from the Emergency Coordinator and the FIU PD.

APPENDIX A: FACILITY MAPS

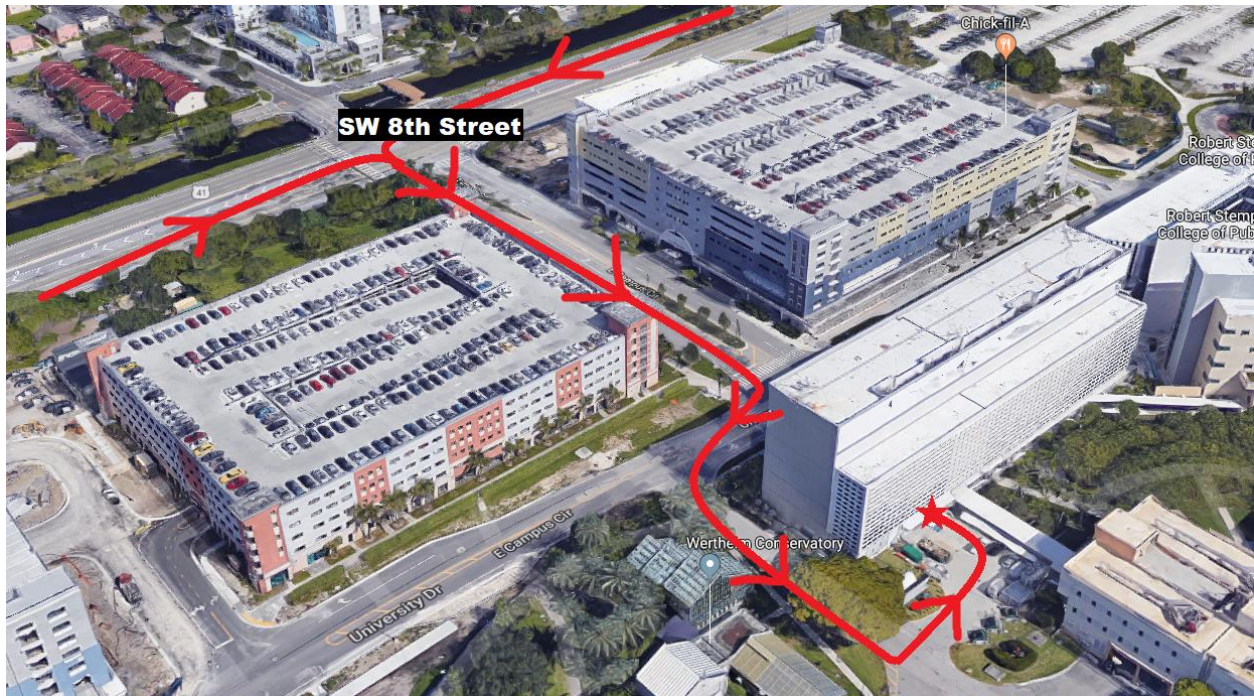


Figure A.1: Entry route to central accumulation area building AHC4 from SW 8th Street

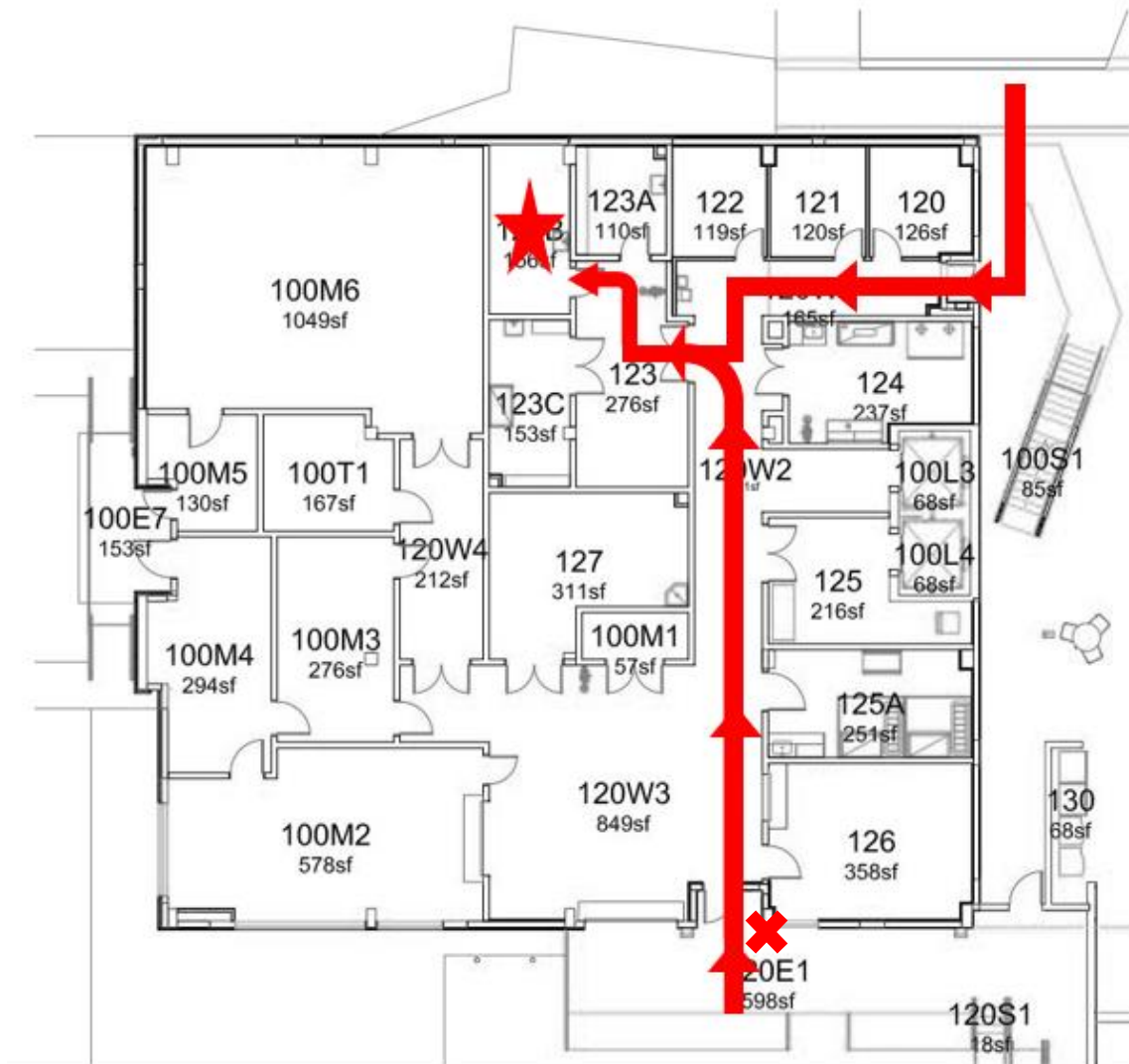


Figure A.2: Multiple points of entry and floorplan of AHC4 1st floor. The entrance marked with an X refers to the primary entry point outlined in Figure A.1 (120W3). The unmarked entrance represents an alternate point of entry from a side door (120W1).

APPENDIX B: QUICK REFERENCE GUIDE

This quick reference guide is designed to provide rapid, easy access to important information and guidance during an emergency.

- Types, names, and maximum amounts of hazardous wastes stored onsite and associated hazards: toxic, flammable, corrosive, and reactive wastes are produced. Mercury, acrolein, sodium azide, dibromobenzene, benzaldehyde, benzene, and hydrofluoric acid exposure may require special attention.
- Street map of facility in relation to nearby community (central accumulation area marked in yellow): The entrance marked with an X has the fire department connection outside of it



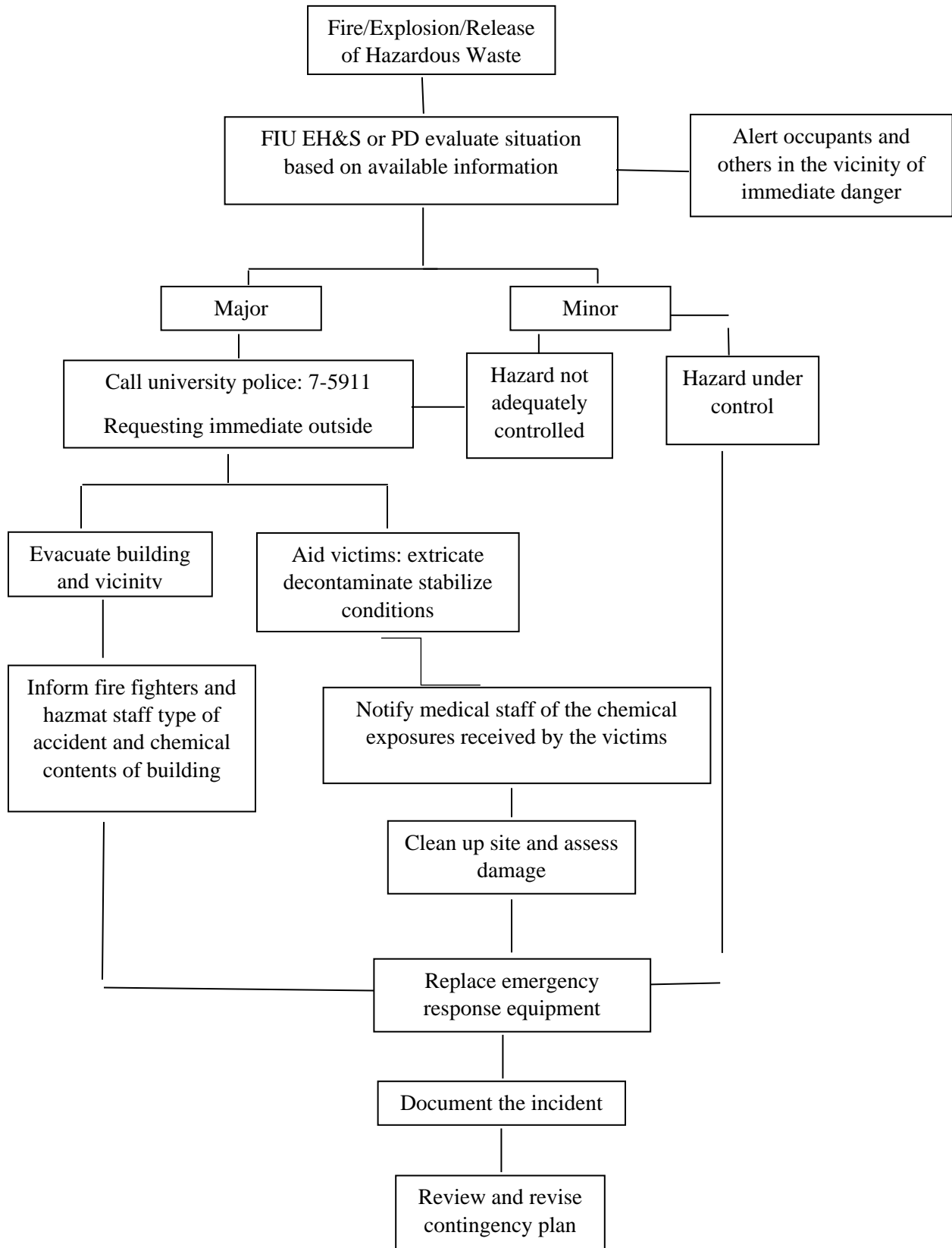
- Onsite notification systems: FIU Alter Emergency Notification System,
- Emergency Coordinators

Primary
Tamece Knowles
305-348-7882 (office)
786-942-5833 (cell)

Alternate #1
Gina Oubrar
305-348-6849 (office)
305-904-5128 (cell)

Alternate #2
Enrique Badia
305-348-7835 (office)
786-271-1856 (cell)

APPENDIX C: EMERGENCY OPERATIONS FLOW CHART



APPENDIX D: EMERGENCY CONTACTS & HAZARDOUS MATERIALS INCIDENT REPORTING FORM

D.1 Emergency Contact Information

EMERGENCY COORDINATORS				
NAME	TITLE	OFFICE	HOME	CELL
PRIMARY				
Tamece Knowles	Director, EH&S	305-348-7882		786-942-5833
Alternates (in order)				
Gina Oubrar	Assistant Director, EH&S	305-348-6849		305-904-5128
Enrique Badia	Assistant Director, EH&S	305-348-7835		786-271-1856

Job title and job description for each position related to hazardous waste management

Tamece Knowles: Director of EH&S

- As the Director of EH&S at all of FIU's campuses, Tamece is responsible for overall EH&S compliance with federal, state, local, and university requirements including: R&D laboratory /chemical safety, biological safety, controlled substances, environmental compliance, fire safety, general operations safety, nanomaterial, radiation, and safety training.

Gina Oubrar: Assistant Director of EH&S

- As the Assistant Director of Lab Safety for all campuses at FIU, Gina provides support and guidance for the EH&S lab safety units in the areas of general lab safety, hazardous waste management, biosafety, chemical safety, radiation safety, controlled substances, laser safety, and nanomaterials. She also oversees research proposal safety reviews, indoor air quality assessments, safety and compliance inspections, and lab facility evaluations.

Enrique Badia: Assistant Director of EH&S

- As the Assistant Director of General/Industrial Safety for all campuses at FIU, Enrique manages indoor air quality, high risk programs, petroleum storage tanks (above ground tanks and underground tanks), regulatory compliance with OSHA, DERM, EPA, and DEP, environmental permits/issues (except asbestos), and the stormwater program.

Emergency Telephone Numbers

- Fire or Hazardous Materials Incident **7-5911 (dialing from campus landline)**
- State Warning Point **(800) 320-0519**
- National Response Center **(800) 424-8802**
- Miami-Dade County Emergency Management **(305) 468-5400**
- Kendall Regional Medical Center Emergency Room **(350) 223-3000.**
- Miami-Dade Police Department **(305) 476-5423**

- Miami-Dade Fire Department **(786) 331-5000**

Additional Telephone Numbers for Serious Chemical Releases

- DEP Southeast District **(561) 681-6600**
- DEP Tallahassee (Cleanup Section) **(850) 245-2118**
- DEP Bureau of Solid/Hazardous Waste **(850) 245-8705**
- DEP Tallahassee (Emergency Response) **(850) 245-2010**
- DEP (24 hour/after business hours) **(800) 320-0519**
- CHEMTREC (Chemical Information) **(800) 262-8200**
- EPA Emergency Planning & Community Right-To-Know **(404) 562-9150**

D.2 Hazardous Materials Incident Reporting

If a hazardous materials incident (*i.e.*, release, fire, explosion, etc.) could threaten human health or the environment outside the facility (*i.e.*, off FIU property), the Emergency Coordinator must:

- 1) Determine if evacuation of local areas may be advisable, notify appropriate local authorities, and be available to help local authorities decide if evacuations are warranted.
- 2) Notify the State Warning Point, if necessary, at **800-320-0519** or the National Response Center at **800-424-8802** using the form in section D.3.

D.3 Hazardous Materials Incident Reporting Form

FLORIDA INTERNATIONAL UNIVERSITY

Environmental Health and Safety
11200 SW 8th street
Miami, FL 33199

USEPA Identification Number: **FLD980839518**

Person Calling: _____ Caller's Phone # _____

Building Name: _____

Location: _____

INCIDENT INFORMATION:

Date: _____ Time: _____

Type of Incident (fire, explosion, chemical release, etc.):

Name and quantity of hazardous material involved (to the extent known):

Extent of injuries (if any):

Assessment of possible hazards to human health or environment outside the facility:

Estimated quantity and disposition of recovered materials:

APPENDIX E: HURRICANE EMERGENCY PLAN

Research Facility and Research Expansion Waste Storage Rooms

Revised: 02/18

PURPOSE

The purpose of this attachment is to establish procedures to be implemented prior to, during, and following a hurricane. This plan will be inserted in the Modesto Maidique Campus Hazardous Waste Contingency Plan and copies will be kept in the Environmental Health and Safety Offices (BBC & MMC).

TERMS

In the event a hurricane threatens the South Florida area, the National Weather Service will issue warning information through public releases for press, radio and television. Two of the terms used in hurricane advisories are:

Hurricane Watch - This condition is declared when it appears that the storm poses a threat to a specific area. The watch usually covers an area of several hundred miles. It implies the possibility of dangerous conditions within 24-48 hours.

Hurricane Warning - This condition is declared when it appears probable that the storm will hit a specific area. The hurricane conditions are considered to be imminent or at least within 12-24 hours.

PRE-HURRICANE

- The Primary Emergency Coordinator is to ensure the requirements of this plan are carried out. In the absence of the Primary Emergency Coordinator, an alternate will be designated. Typically, this will be an EH&S trained staff member who is familiar with the chemical inventory in AHC4-123.
- The Primary Emergency Coordinator will ensure all EH&S personnel are aware of this plan and know their responsibilities in the event of an emergency.
- Any equipment or materials needed to carry out this plan are to be ordered ahead of time and stored in the EH&S Office located in CSC-146.

HURRICANE WATCH,

- The Primary Emergency Coordinator will request applicable EH&S personnel review this plan and prioritize their work schedule accordingly.
- Any items outside the AHC4 Building that could become airborne in high winds will be brought into the building or secured in place.
- Waste pick-ups will be suspended until conditions return to normal.
- A copy of the current hazardous waste inventories for AHC4 will be bagged and kept in AHC4-123B and the EH&S Office (CSC 146).

HURRICANE WARNING

- Be sure all water-reactive, potentially unstable and extremely hazardous chemicals are labeled and bagged in watertight plastic bags or watertight containers. This procedure should also be followed for radioactive materials.

- All drums containing bulk chemicals should be labeled with waterproof markings in numerous places as to their identity and contents. All drum lid openings must be tightly sealed and secured.
- All safety equipment (labels, pillows, meters, respirators, absorbent, or other items) subject to water damage should be labeled and placed in the higher areas of the building.
- The University Police should be notified that the waste storage areas have been evacuated and secured.

Points of Contact:

Tamece Knowles, Director, EH&S

Location: CSC 163

Office: (305) 348-7882

Cell: (786) 942-5833

E-mail: knowles@fiu.edu

Gina Oubrar, Assistant Director, EH&S

Location: AHC4 121

Office: (305) 348-6849

Cell: (305) 904 - 5128

E-mail: gigallia@fiu.edu

Enrique Badia, Assistant Director, EH&S

Location: CSC 165

Office: (305) 348-7835

Cell: (786) 271-1856

E-mail: ebadiaso@fiu.edu