
Hazardous Waste Storage Contingency Plan & Emergency Procedures - MMC

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HAZARDOUS WASTE STORAGE CONTINGENCY PLAN & EMERGENCY PROCEDURES - MMC

HANDLING INSTRUCTIONS AND APPROVAL

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1.0 INTRODUCTION

This contingency plan has been prepared by Florida International University (FIU) Environmental Health & Safety (EH&S), which is responsible for hazardous waste management related operations, spill control, and emergencies. Per 40 CFR 262.260, FIU is required to have a contingency plan in place for any facility classified as a large quantity generator (LQG). The FIU Modesto A. Maidique Campus (MMC) is classified as a LQG of hazardous waste with the **DEP/EPA ID Number FLD980839518**.

2.0 PURPOSE

This 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 carried out whenever there is 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

This plan describes the actions facility personnel will take in an emergency situation. The plan also describes arrangements agreed to by the FIU Police Department (FIU PD), Miami Dade Fire Rescue (MDFR), Miami- Dade Emergency Response, and HCA Florida Kendall Hospital. 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 and cell) of all persons qualified to act as emergency contacts and the emergency equipment that is available at MMC.

4.0 DISTRIBUTION OF CONTINGENCY PLAN

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

- EH&S Lab Safety Office – Academic Health Center 4 (AHC4) Room 121
- EH&S Main Office – Campus Support Complex (CSC) Room 146
- FIU PD, Parking Garage 5 (PG5) Market Station

In compliance with 40 CFR 262.256(a)(2), the contingency plan will also be provided to the following organizations.

- Florida Department of Environmental Protection (FDEP) – Southeast District
3301 Gun Club Road MSC 7210-1
West Palm Beach, FL 33406
- Miami Dade Fire Rescue/Emergency Response
9300 NW 41st Street
Miami, FL 33178
- HCA Florida Kendall Hospital
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 contacts 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 MMC. 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. When activated, these systems send a signal to the fire alarm control panel and alert FIU PD. In the event of an alarm, a signal is sent to FIU PD Dispatch who then alerts the local fire department, FIU PD, and FIU H&S. 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 waste 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 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 at MMC. FIU PD 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 MDRF. Tours of the research, teaching and campus support facilities, including the waste storage room (AHC4-123) is offered annually to MDRF and the FIU PD. When high hazard materials, such as explosives, dried picric acid, organic peroxides, shock-sensitive chemicals and chemical mixtures are involved in an emergency, FIU PD will request assistance from the MDRF 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 NRC Gulf Environmental Services in accordance with the provisions contained in the Florida Department of Environmental Protection (FDEP) contract. NRC Gulf 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 MDRF 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 NRC Gulf Environmental Services.

7.4 HCA Florida Kendall Hospital

Immediate treatment of injured personnel is available at the HCA Florida Kendall Hospital's 24-hour Emergency Center. The hospital is located approximately 5 miles South of the MMC. 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, FIU EH&S must immediately contact FIU PD to activate the FIU emergency response protocol as described in the Emergency Operations Flow Chart (Appendix C).

When there is a release, fire, or explosion, FIU PD, MDRF Hazmat, and FIU EH&S must work together to 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, MDRF Hazmat, FIU PD, and FIU EH&S 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 MDFR Hazmat 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, FIU PD must immediately notify appropriate local authorities and be available to help appropriate officials decide whether local areas should be evacuated (see Evacuation Plans); and
- The FIU EH&S 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.
- FIU EH&S must implement the contingency plan and submit a written report to FDEP **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, FIU EH&S must inform the Environmental Protection Agency (EPA) **within 24 hours** and a written report must be submitted within 30 days.

During an emergency, MDFR 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, MDFR must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, where it is appropriate.

Immediately after an emergency, FIU EH&S must coordinate the 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.

FIU EH&S 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.

FIU EH&S must notify the FDEP 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.

MDFR and FIU PD 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. FIU PD will notify the occupants of any buildings that have been evacuated or ordered to shelter in place.

FIU PD 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 (305)348-5911 from a safe location.

9.2 Evacuation of Nearby Buildings on FIU Property Procedure

- FIU PD 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

- FIU PD instruct building occupants of the need to shelter-in-place. This will be done in person or by FIU Alert notification via speakers and phones in the building.
- Police officers 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 FIU Alert when it is safe to go outside.

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

- FIU PD 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 at MMC will be established by FIU PD with assistance from local jurisdictions.

- Traffic control and security of any affected areas off campus will be established by the appropriate local jurisdiction.

APPENDIX A: FACILITY MAPS

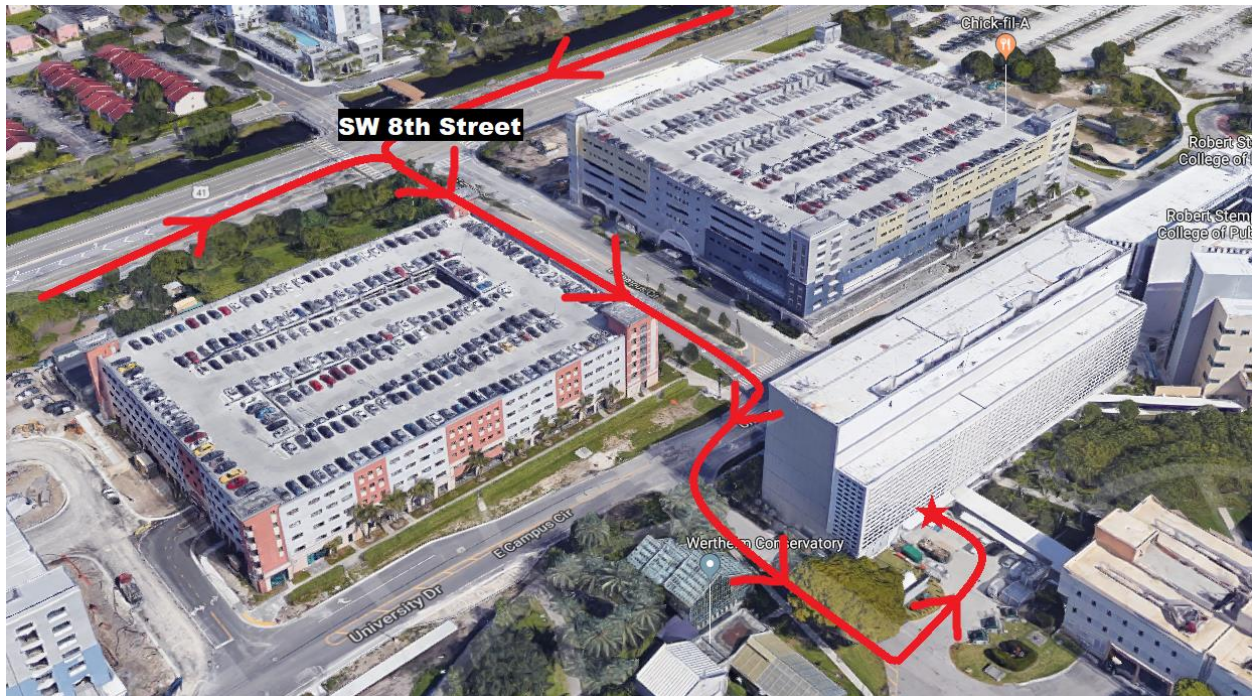


Figure A.1: Entry route to central accumulation area building AHC4 from SW 8th Street.

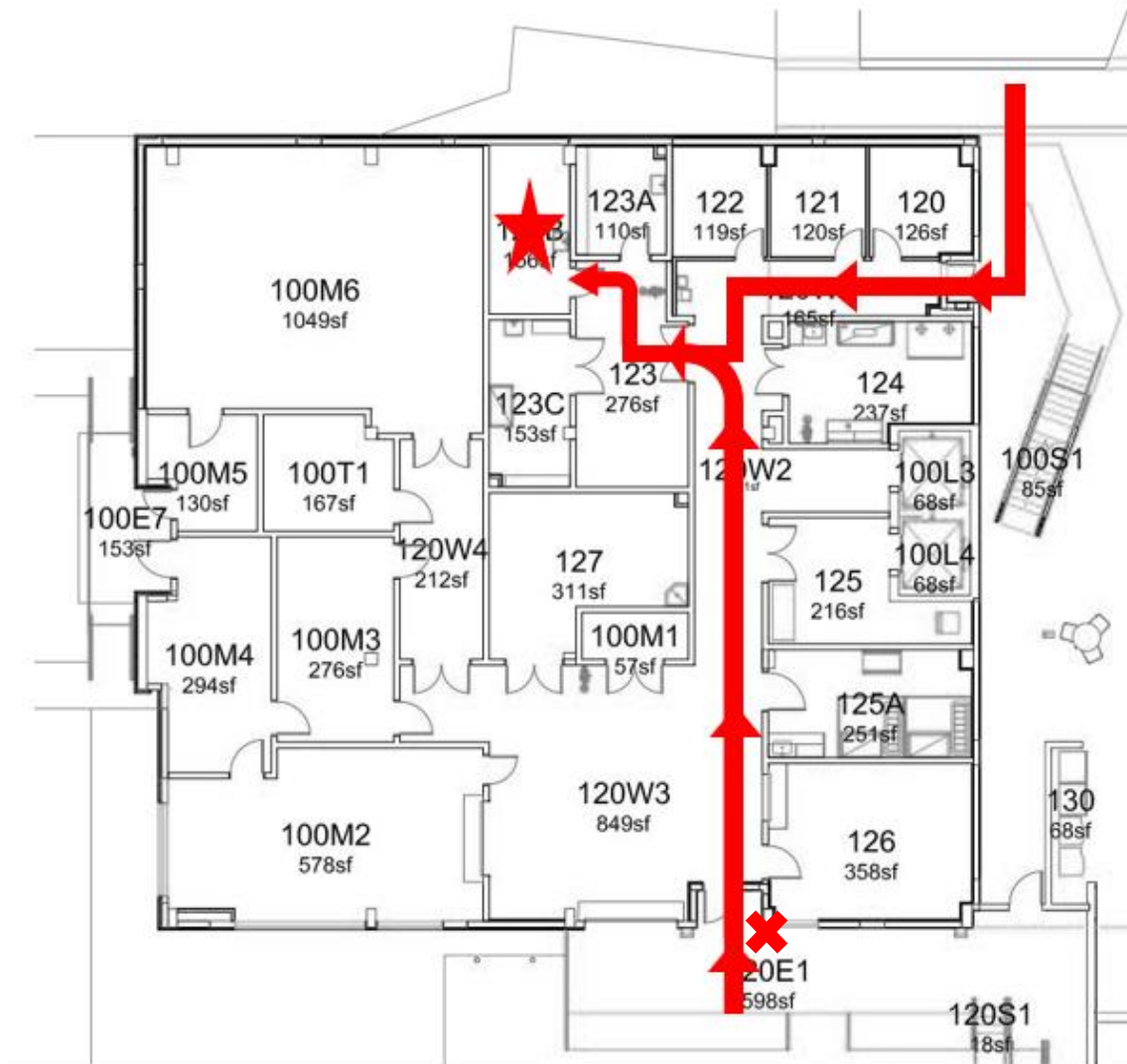
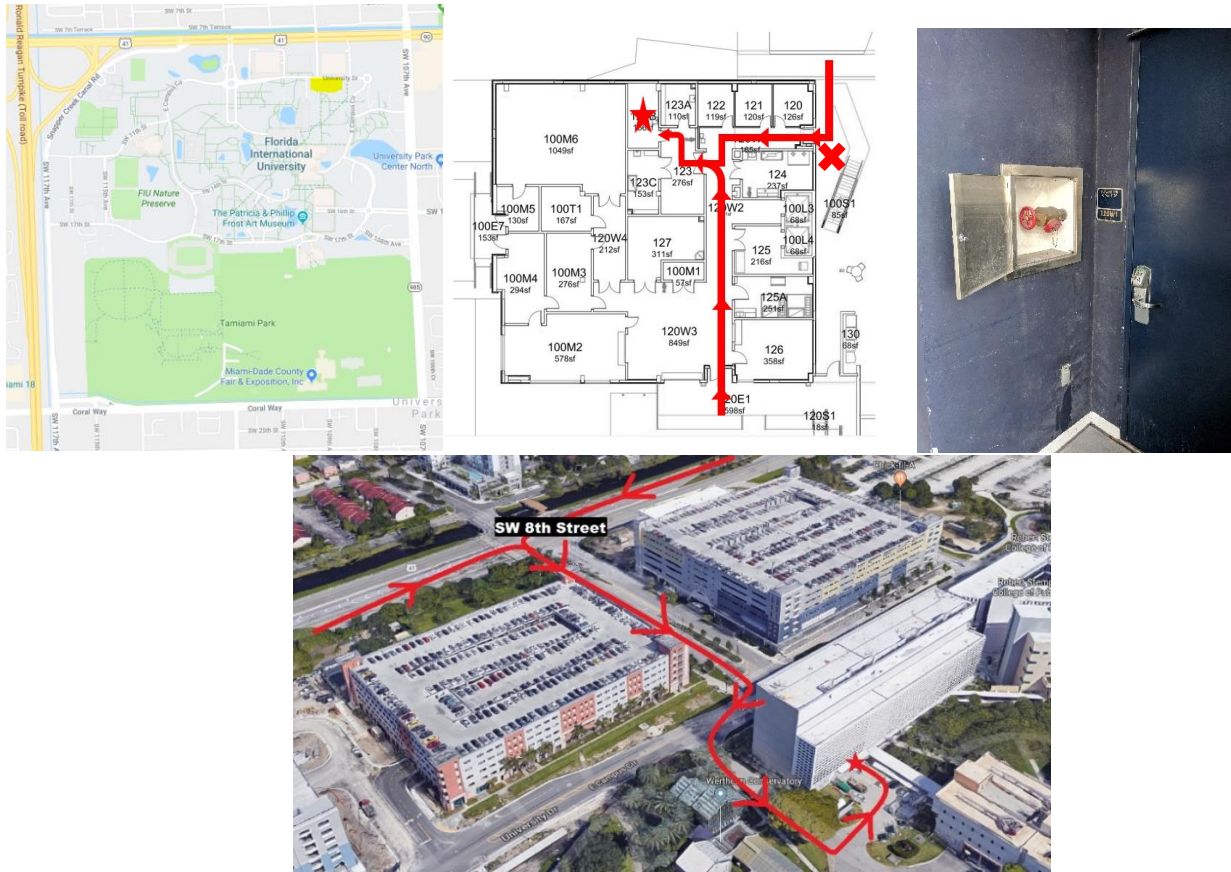


Figure A.2: Multiple points of entry and floorplan of AHC4 1st floor. The entrance marked with an X refers to the primary entry point outlined in Figure A.1 (120W3). The unmarked entrance represents an alternate point of entry from a side door (120W1).

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.



- Onsite notification systems: FIU Alert Emergency Notification System
- FIU PD (305)348-5911
- FIU EH&S Emergency Contacts

Primary

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

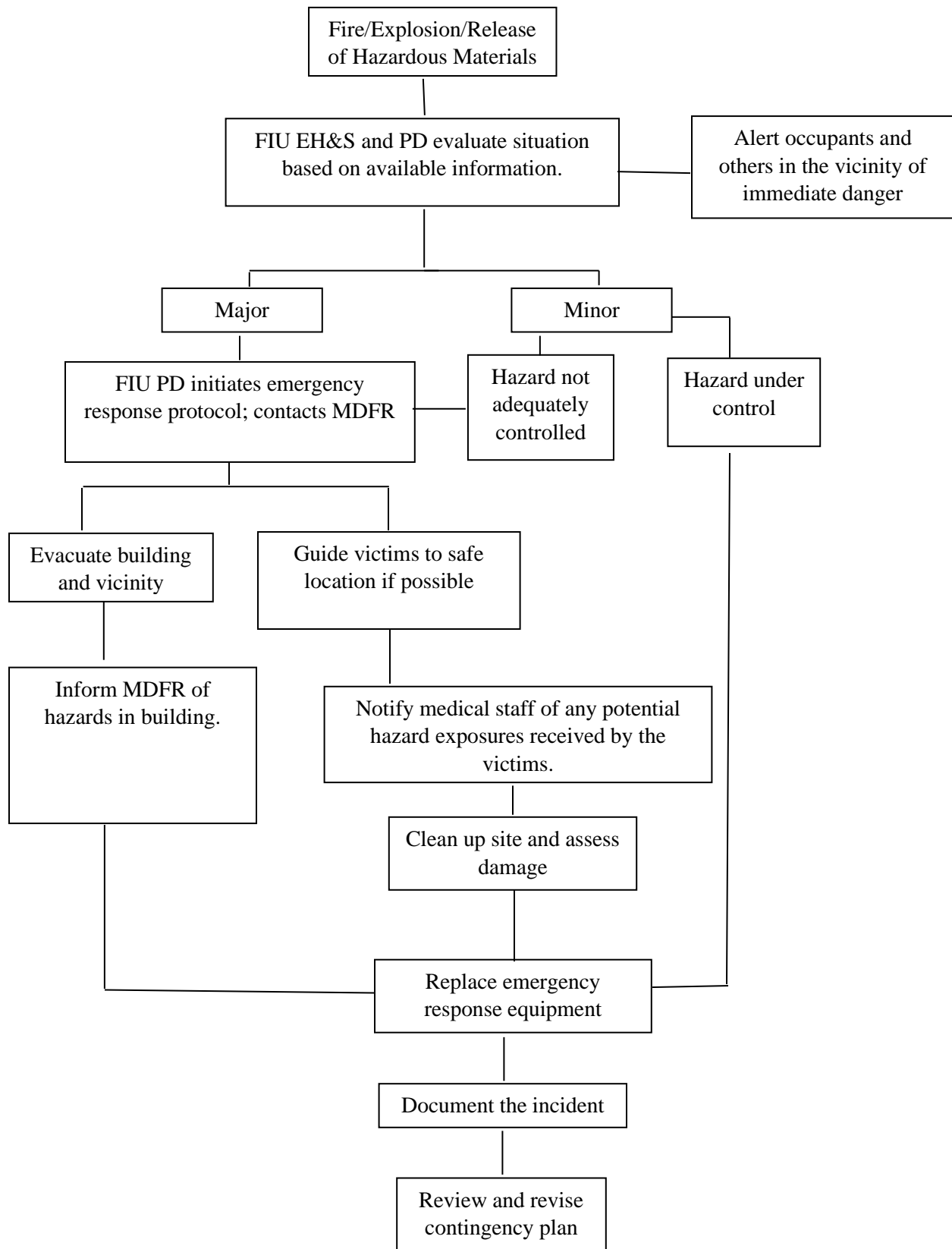
Alternate #1

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 FIU EH&S Emergency Contact Information

EMERGENCY CONTACTS				
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:

Director of EH&S

- the Director of EH&S is responsible for overall FIU compliance with federal, state, local, and university requirements pertaining to laboratory /chemical safety, biological safety, controlled substances, environmental compliance, fire safety, radiation safety, laser safety, general operations safety, and safety training.

Assistant Director of EH&S – Laboratory Safety

- The Assistant Director of Lab Safety provides support and guidance for the EH&S lab safety units in the areas of general lab safety, hazardous/universal waste management, biosafety, chemical safety, radiation safety, controlled substances, laser safety, and nanomaterials. The Assistant Director also oversees research proposal safety reviews, safety and compliance inspections, and lab facility evaluations. The Assistant Director and designated staff are required to complete DOT, HAZWOPER, and RCRA training.

Assistant Director of EH&S – General Safety/Environmental Compliance

- The Assistant Director of General/Industrial Safety 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 **(305)348-5911**
- State Warning Point **(800) 320-0519**
- National Response Center **(800) 424-8802**
- Miami-Dade County Emergency Management **(305) 468-5400**
- HCA Florida Kendall Hospital 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), FIU EH&S and FIU PD along with MDRF 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) MDRF will notify the State Warning Point, if necessary, at **800-320-0519** or FIU EH&S will notify 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

Hazardous Waste Storage Rooms

Revised: 12/2023

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 MMC Hazardous Waste Contingency Plan and electronic copies will be kept in the Environmental Health and Safety Office CSC 146).

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 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 36 hours.

PRE-HURRICANE

- FIU EH&S is to ensure the requirements of this plan are carried out. Typically, this will be an EH&S trained staff member who is familiar with the chemical waste inventory in AHC4-123.
- FIU EH&S 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

- All 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 available in AHC4-123.

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.
- FIU PD should be notified that the waste storage areas have been evacuated and secured.

FIU EH&S 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