

No./Title: Hazardous Material Spill Contingency Plan	Resp. Office: Research Safety	Effective Date: 2/01/2019
Category: Research Safety	Last Review: 2/01/2020	Next Review: 2/01/2021
Contact: Tim Barton, Director of Research Safety Affairs	☎ 901.448.7374	✉ tbarton4@uthsc.edu
Related Policies: UTHSC Emergency Response Plan		

PURPOSE

This Plan is intended to minimize hazards to human health or the environment 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 provisions of the plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

SCOPE AND APPLICABILITY

This shall apply to all research laboratories and associated hazardous waste storage areas on the Memphis campus of the University of Tennessee Health Science Center (UTHSC). UTHSC departments or sections housed in off-campus facilities should follow the hazardous materials spill contingency plan of their host. This plan is maintained by the Office of Research Safety Affairs and reviewed annually.

ABBREVIATIONS AND DEFINITIONS

Emergency Hazardous Material Spill - Emergency chemical spills are spills of any hazardous material in a quantity or location that the employee has not been trained to handle. These spills are generally more than a liter in volume and involve a highly toxic or reactive compound, present an immediate fire or environmental hazard, or require additional PPE (e.g., respirator) and specialized training to properly clean.

Non-Emergency Hazardous Material Spill - Spills involving a material, a quantity and in a location that the employee has been trained to handle and for which the employee has appropriate PPE and spill response materials. For example, a small spill of a routinely handled chemical reagent on a fumehood benchtop.

Safety Data Sheet (SDS) - Written or printed material concerning a hazardous chemical that is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). Formerly known as Materials Safety Data Sheets (MSDS), an SDS contains information on the potential health effects of exposure to chemicals, or other potentially dangerous substances, and on safe working procedures when handling chemical products.

ROLES AND RESPONSIBILITIES

Departments, Principal Investigators, supervisors and personnel using hazardous chemicals shall:

- Comply with procedures for large and small chemical spill response as detailed in this plan and the UTHSC Office of Research Chemical Hygiene Plan.
- Have access to Safety Data Sheets (SDS) for the hazardous materials in their work areas.
- Maintain chemical spill kits capable of cleaning up non-emergency spills of hazardous materials.
- Supervisors must train employees to properly handle hazardous materials and how to respond in the event of a spill. This training must include the proper use of personal protective equipment (PPE), engineering controls, and work practices to minimize the potential for exposure to hazardous chemicals.
- Know the location of fire alarm systems and fire exits.

Personnel from the Office of Research Safety Affairs and Campus Safety will constitute the Hazardous Materials Emergency Response Team (HMRT). The HMRT shall:

- Respond to emergency hazardous material spills.
- Complete training appropriate for the response to hazardous material spills.
- Coordinate emergency spill response activities with UTHSC departments and other emergency responders.
- Report releases to the appropriate state and federal agencies in accordance with 49 CFR Part 355.

UTHSC Campus Police shall:

- Maintain emergency contact information for Safety Office personnel.
- Notify the Safety Office or Hazardous Material Response Team in the event of an emergency hazardous material spill.

The hazardous material and waste contractor (Excel) shall:

- Assist with hazardous material emergencies upon request by authorized UTHSC personnel.
- Manage the transportation and disposal of hazardous chemical waste.

The Memphis Fire Department shall:

- Respond to emergency alarms or reports of fire.

- Respond to hazardous material emergencies, when the nature of the incident response requires training and equipment beyond the capabilities of the HMRT.

TRAINING

Members of the HMRT initially receive 40-hours of training in accordance with the Tennessee Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response Standard (HAZWOPER). Such training includes the following topics:

- Chemical, biological, physical and radiological hazards
- Risk assessment techniques
- Personal protective equipment
- Control, containment, confinement and clean-up techniques
- Decontamination
- Basic chemistry and toxicology

Annual hazardous materials emergency response refresher training is provided to the HMRT (ERT). Such training includes the following topics:

- The UTHSC Emergency Response Plan
- Chemical, biological, physical and radiological hazard awareness
- Notification procedures

PROCEDURE

General Procedures for Non-Emergency Hazardous Material Spills

Non-emergency hazardous material spills can be cleaned up by properly trained lab personnel using conventional lab PPE (e.g., safety glasses/goggles, lab coat, gloves) and a lab spill kit. In general, when a non-emergency spill occurs in the lab, the area around the spill should be isolated, everyone in the lab should be made aware of the spill, and the spilled material should be absorbed and collected using either pads or some other absorbent. Decontamination of the spill area should be conducted using an appropriate solvent (soap and water is often the most effective). Proper PPE shall be worn, and only trained personnel shall conduct the cleanup after reviewing the SDS(s) to obtain chemical-specific cleanup information.

As detailed in the Chemical Hygiene Plan, each laboratory must have a spill response kit available for use. Lab spill kits can either be purchased from a vendor or created by lab personnel, but each spill kit must be equipped to handle small spills of the most common hazards in the laboratory. Spill response and cleanup materials that should be in the kit include:

- Absorbent materials such as pads, booms, oil dry or kitty litter
- Neutralizing agents (e.g., Spill X) for acids and/or bases if high volume of acids and/or bases are stored in the laboratory
- Containers such as drums, buckets, and/or bags to containerize spilled material and contaminate debris generated during the cleanup process
- PPE such as gloves, safety glasses and/or goggles, lab coat or apron, chemical-resistant booties
- Caution tape or some other means to warn people of the spill

Emergency Hazardous Material Spill Procedures

Emergency spills are spills of any hazardous material in a quantity or location that the employee has not been trained to handle. Emergency spills are generally more than a liter in volume and involve a highly toxic or reactive compound, present an immediate fire or environmental hazard, or require additional PPE (e.g., respirator) and specialized training to properly cleanup. The following procedures must be followed in the event of an emergency hazardous material spill:

- Cease all activities and immediately evacuate the affected area (make sure that all personnel in the area are aware of the spill and also evacuate).
- If chemical exposure has occurred to the skin or eyes, the affected personnel should be taken to the nearest safety shower and eyewash station.
- Dial 8-4444, which will contact the UTHSC Police Department (UTHSC PD). The UTHSC PD will contact the Safety Office to initiate an emergency hazardous material spill response and clean-up. If necessary the UTHSC PD will be able to contact the appropriate authorities (e.g. fire department, administration, etc.). Callers must be prepared to provide the following information: the name of person reporting, any injuries or exposures, the location of the spill (building and room number), the type of material(s) and approximate volume spilled, control measures already implemented, controlled access to the spill location until the spill response team arrives. (This can be done by closing doors, posting signs or otherwise preventing personnel from entering the vicinity of the spill or areas where toxic vapors may be present.)

Fires or Explosions

In case of a fire or explosion building occupants must take the following steps.

- Activate the nearest manual fire alarm.
- If the fire alarm has not sounded, contact Campus Police (extension 8-4444) and relay pertinent information.
- Confine the fire and smoke by closing doors and windows, but do not lock doors.

- Evacuate the building immediately upon the sounding of the fire alarm. Do not use the elevators. Proceed to the muster point designated for your building.
- Locate the Building Manager for Emergencies immediately and let him/her know you are out of the building.

Arrangements with Local Emergency Response Teams and Contractors

UTHSC maintains a contract with hazardous material and waste contractor Excell for services and disposal of hazardous materials and waste. The Memphis Fire Department and/or its Hazardous Materials and Rescue Squad may be utilized to respond to hazardous material emergencies, when the nature of the incident response requires training and equipment beyond the capabilities of the HMRT. A copy of the UTHSC Emergency Response Plan has been provided to the Memphis-Shelby County Local Emergency Planning Commission to facilitate response efforts.

ATTACHMENTS

Emergency Contact Information

Spill Response Equipment and Materials

Hazardous Waste Storage Area Evacuation Plan

ATTACHMENT 1
Hazardous Material Spill Contingency Plan
Emergency Contact Information

Title:	Chief Safety Officer (Emergency Coordinator)
Name:	Tim Barton
Address:	3 North Dunlap Street, Suite S206, Memphis, TN 38163
Work Phone:	901-448-7374
Home Phone:	901-586-7871
Title:	Environmental (Waste) Coordinator
Name:	Sharon Andersen
Address:	201 East Street, Memphis, TN 38163
Work Phone:	901-448-6115
Home Phone:	901-218-2364
Title:	Radiation Safety Officer
Name:	Jabari Robinson
Address:	3 North Dunlap Street, Suite S204, Memphis, TN 38163
Work Phone:	901-448-5223
Home Phone:	225-571-7498
Title:	Fire Safety Specialist
Name:	Scott Adams
Address:	201 East Street, Memphis, TN 38163
Work Phone:	901-448-5619
Home Phone:	901-573-6280
Title:	Emergency Response Contractor
Company:	Excell TSD
TN Manager:	Nathan Jenkins, 901-283-2267
President	Steve Neal, 501-804-4030

TN Emergency Management: (800) 322-8362

National Response Center: (800) 424-4425

ATTACHMENT 2
Hazardous Material Spill Contingency Plan
Emergency Response Supply List

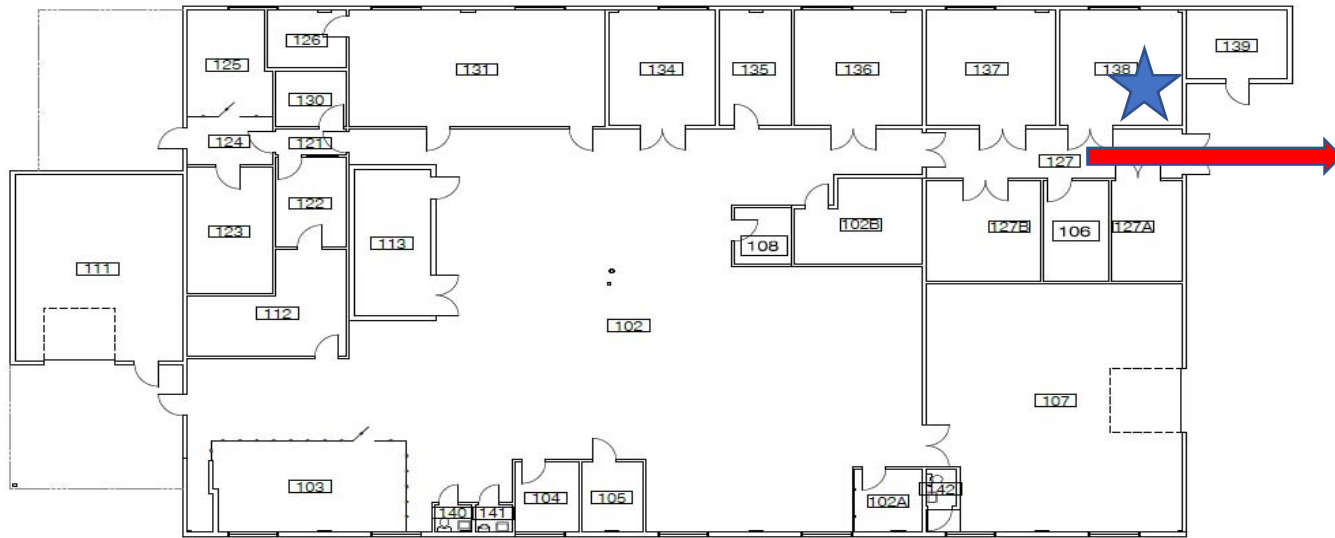
Room 127A and 138 2188 1st floor Physical Plant

- Spill Kits: Acid, Caustic, Solvents, Mercury, Hydrofluoric Acid, Bio-Hazard
- Absorbent pads-Oil, Universal and General Purpose
- Absorbents: Oil Dri, Vermiculite, Zorbitol
- Caution tape, heavy duty large black bags
- Drums: Various sizes steel and plastic
- Respirators and Face masks
- Goggles and Safety Glasses
- Nitrile and Neoprene gloves
- Tyveks-Yellow and White
- Lab Coats
- pH paper
- Peroxide formation paper
- Calgonate cream for skin exposure to Hydrofluoric Acid
- First aid kits
- Shovels, Brooms, Mops, Ladder
- Fire extinguishers
- Fire alarms

3 North Dunlap Street, Room S208

- Spill Kits: Acid, Caustic, Solvents, Mercury, Hydrofluoric Acid, Bio-Hazard
- Caution tape, heavy duty large black bags
- Drums: Various sizes steel and plastic
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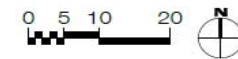
Hazardous Material Spill Contingency Plan



SPACE INFO	
ROOM	AREA
102	4229 SF
102A	92 SF
102B	208 SF
103	376 SF
104	97 SF
105	93 SF
106	142 SF
107	1335 SF
108	70 SF
111	669 SF
112	279 SF
113	242 SF
121	40 SF
122	138 SF
123	231 SF
124	89 SF
125	185 SF
126	98 SF
127	267 SF
127A	151 SF
127B	247 SF
130	86 SF
131	640 SF
134	267 SF
135	179 SF
136	319 SF
137	324 SF
138	306 SF
139	149 SF
140	21 SF
141	21 SF
142	24 SF
1ST FLOOR	11655 SF
GROS	13333 SF

2188 - PHYSICAL PLANT SHOPS
1ST FLOOR

Database Plan Revised 9/2015



Evacuation Route



Hazardous Material Storage Area

Revised 1/10/2018