

***Contingency Plan
For
Accidental Chemical Spills
for the
(Insert your facility name here)***



1867

HOWARD

UNIVERSITY

**(Insert your address here)
Washington, D.C. 20059**

Revised June 2019

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Company Name: Howard University

Site Name: (insert your facility name here & also put another name it is referenced by if applicable in parenthesis)

Site Address: (insert your address here) Washington, D.C. 20059

Effective Date of Plan: April 30, 2016

1. Introduction

Spills of petroleum products and other hazardous materials cannot be entirely prevented; however, the impacts of spills can be minimized by establishing a predetermined line of response and action plan. The location of developments at the Howard University Campus and the environmental sensitivity of the region underline the necessity for good spill contingency planning.

The purpose of this document is to provide guidance for the preparation of acceptable Spill Contingency Plans. Howard University staff must be aware of the correct emergency procedures to take in the event of a chemical spill. Chemical spills, whether toxic, reactive, flammable, or corrosive even in small quantities can present a potential exposure hazard to staff. Corrosives, such as acids and caustics, can cause severe burns upon contact with skin and/or eyes, and the presence of fumes can be damaging to the respiratory system. Many organic solvents are flammable and release vapors, which are irritating to the eyes and respiratory system.

Scope of the contingency response plan for accidental chemical spill procedure at this facility is designed to handle the requirements for this system and associated hazardous substances, to stop the source of the spill, contain any spilled material and clean up the spill in a timely manner to prevent accidental injury or other damage. Small spills will be contained by site personnel if they are able to do so without risking injury. Spill kits are located at the following location(s).

Personnel will properly characterize spill cleanup materials before disposal. *For questions about disposal call the Department of Environmental Health & Safety – Public Safety at (202) 806-1033. Or if after hours call Campus Police Dispatch at 202-806-1100.*

List type and amount of Hazardous Substance Inventory materials normally stored on site, the storage capacity and the type and number of storage containers. (See **APPENDIX A – Hazardous Substance Inventory**)

Spill Prevention

The following are general requirements for any hazardous substances stored or used at this facility.

General Requirements

- Ensure all hazardous substances are properly labeled.
 - Store, dispense, and/or use hazardous substances in a way that prevents releases.
 - Provide secondary containment when storing hazardous substances in bulk quantities (~55 g).
 - Maintain good housekeeping practices for all chemical materials at the facility.
 - Routine/Daily checks in the hazardous substance storage area to be performed by
-
- Monthly inspections of the hazardous substance storage area, secondary containment, and annular space (interior cavity of double wall tank) on any Above-ground Storage Tanks (AST) or Underground Storage Tanks (UST) need to be logged in this plan. (See **APPENDIX B - Inspection Log**).

2. Spill Contingency Agency Response

Title	Name	Number(s)	Duties
Campus Police	Campus Police Dispatch	202-806-1100	Ensure police presence for safety & crowd control; any other emergency assistance as needed
Director Environment Health & Safety	Mr. Alfa Jackson	(202) 806-1033	On site to ensure Contingency plan is operating as required and to provide additional resources as needed for containment/cleanup/abatement, etc.
Specific Department	TBD		On scene coordinator, etc.

Reporting.

Incident reporting:

- Report any injury or exposure to your supervisor (needle stick, slip/trip/fall, chemical spill).
- Receive medical attention, if applicable.

Emergency Procedures:

- Immediately call **Campus Police 202-806-1100** in the event of injury, fire or potential fire, or spill of a hazardous substance that gives rise to an emergency situation.

Ensure you are at a safe location before reporting the chemical spill. Please call the Office of Environmental Health & Safety to report chemical spills. Provide the following information:

- Location(s) of the spill(s) _____
- The name of the chemical(s) _____
- The amount spilled _____
- Your name, location and phone number _____

Chemical spill procedures are provided inside many spill kits. The kits typically consist of the following:

<ul style="list-style-type: none"> • Acid neutralizers • Caustic neutralizers • Solvent absorbents • Nitrile gloves • A treatment guide 	<ul style="list-style-type: none"> • Splash gloves • Cleanup pans • A mixer/scrapper • Disposal bags
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If you break a mercury thermometer or spill that contains mercury, call the Office of Environmental Health & Safety to ensure proper cleanup of the mercury release.

If you discover a fire or smell smoke and cannot identify the source remember “**R.A.C.E.**”

- **RESCUE**
- **ALARM**
- **CONTAIN**
- **EVACUATE**

RESCUE only people and only if you can do so safely.

Pull the nearest **ALARM**, call out “**Code Red**” in a loud voice, and **call Campus Police 202-806-1100**.

CONTAIN the fire by shutting all of the doors behind you.

EVACUATE the building using the stairs.

3. Action Plan

Procedures for initial action.

These procedures are for the first person arriving at the scene of a spill and should cover:

- protecting the safety of personnel at the site and notification of all personnel of spill occurrence
- shutting of ignition sources, if safe to do so
- activating the Spill Response Team
- identifying the spilled material
- locating the likely source of the spill
- stopping the spill at its source, if it is safe to do so
- take actions to contain and clean up the spilled material
- recording relevant information for reporting purposes (e.g. approximate quantity, product type, location, whether spill in still in progress, odor, color, weather)
- Spill reporting procedures. This part of the plan describes the communication system put in place by the plan holder to ensure an expedient response to a spill. Reporting typically occurs to parties inside and outside an organization. The procedures should include:
 - telephone numbers of company officials, off-site spill response contractors and government officials who can provide technical assistance (e.g. include in response organization flowchart)
 - instructions for when and how to report spills to the Howard University Campus Safety Department 24-Hour Spill Report Line (202) 806-1100. The information to be reported to government is outlined on the Spill Report Form in **APPENDIX C – Spill Log**. Depending on the site location and industry, there may be specific reporting regulations or protocols that apply. To determine whether these apply to you, contact the permitting agencies
- if the public may be impacted by a spill, include notification procedures to alert the public

Minor Chemical Spill:

The proper procedure for a minor chemical spill response is:

- Alert people in the immediate area of the spill.
- Isolate the area. Remove ignition sources if the spill is flammable.
- Don apparatus personal protective equipment.
- Identify the hazards associated with the spill. Acid? Caustic? Solvent? Formaldehyde/ Other?
- Select the appropriate clean-up material:
 - a. Acid neutralizer for acid (red label)
 - b. Caustic neutralizer for caustic (blue label)
 - c. Absorbent for solvents (black label)

Major Chemical Spill:

A major chemical spill is defined as a spill that is likely to produce a harmful concentration of a chemical in the air. The proper procedure for a major chemical spill response by properly trained personnel is:

- Assess the area for any immediate dangers to health or safety. If any dangers are present, move away from the area, **call Campus Police 202-806-1100**.
- Attend to injured/contaminated people.
- If flammable, turn off ignition and heat sources.
- Evacuate the laboratory and close doors to the area.
- Move to a safe location.
- Call the Office of Environmental Health & Safety.
- Remain at safe location to answer questions.
- Notify the primary and/or secondary contact from the list above and then continue your spill response. The primary contact should assess additional notification requirements (i.e. notify Campus Police, etc.).
- Retrieve the spill kit from the closest location.
- Assess the size of the leak and any immediate threat of the spill reaching the floor/storm drains or permeable surfaces in the area. If there is an immediate threat and there are no safety concerns, then attempt to block the spill from coming in contact with the floor/storm drain or permeable surface. If no drain covers are available, then try to use absorbent (cat litter) and/or sock booms or rags to stop the spill from getting into the drains or to any permeable surfaces.
- If the spill can be contained with absorbent booms, deploy them around the spill. Use the booms to direct the spill away from any immediate hazards.
- If there is no immediate threat to the floor/storm drains or permeable surfaces, or after controlling the spill, try to plug or stop the leak, if possible. If applicable, put on protective gear (gloves, goggles, protective clothing, etc.) and plug the leak.
- Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the spill cleanup contractor and dispatch them to clean up the spill or commence spill cleanup procedures.

- Spill cleanup for large spills should be handled by the Spill Cleanup Contractor

Mercury Spills:

Always treat mercury thermometers as hazardous waste. WHY? If a thermometer breaks, it contaminates trash and/or equipment making it **Hazardous = COSTLY DISPOSAL!**

***Note: Please replace any mercury thermometers with alcohol thermometers.**

For chemical splashes to the eye or skin:

- Immediately rinse at eye wash station or safety shower for 15 minutes.
- Report to supervisor and seek appropriate medical assistance.

For medical emergency or personal injury:

- Check the area to verify that it is safe for you to enter/remain.
- Call 911 to report medical or fire emergencies.
- Evacuate if the area is unsafe. Close doors to affected area and prevent unauthorized access. Assign someone familiar with the incident to provide information to emergency responders.
- Do not move injured person unless there is a danger of further harm from remaining in the location.
- Care for the injured. Remain with the injured until medical assistance arrives. Initiate lifesaving measures, if necessary and if you are trained.

Procedures for containing and cleaning up the spill.

This is one of the most important sections of your spill contingency plan. The procedures should identify the containment and clean up strategies for various spill scenarios, with detailed instructions for how to achieve the strategies. Procedures will vary depending on whether the spill is on land, water, snow, or on or under ice. Procedures need to be proactive to deal with the spill as quickly as possible. Provide criteria and procedures for scenarios which might require ignition and burning of oil or fuel spills.

Procedures for transferring, storing, and managing spill-related wastes.

For example, contaminated soil, vegetative matter, snow/ ice, spilled product, residual product (e.g. after burning) and waste response materials (e.g. sorbent materials). If materials are to be disposed on or off-site, the plan should describe the disposal method and approved location. Be sure to identify any regulatory steps that must be taken to acquire regulatory approval for the waste management options outlined in the plan.

Procedures for restoring affected areas, providing Inspectors with status updates and cleanup completion.

Determining the required level of final cleanup and restoration is to be completed in consultation with, or to the satisfaction of, the Howard University Office of Environmental Health & Safety – Department of Public Safety, DC Fire & EMS/Hazmat Department, DC Office of Risk

Management, EPA, etc. **Site specific studies may need to be performed to determine the appropriate final clean up levels.**

Where appropriate, the procedures outlined above should discuss alternative actions to be taken in the case of impeding environmental conditions (e.g. poor visibility in blizzards, limited daylight hours, extreme cold, difficult terrain, etc.) For example, if spill response relies on contractors accessing the site via a winter road, response actions to be taken when roads are closed should be included in the plan.

4. Resource Inventory

On-site Resources. (please input all items you have on site here, if these apply fine, if not add the ones that do)

Items	Quantity of items	Location of items		
Spill kits				
Booms				
Sorbent materials				
Fire extinguishers				
Earth moving equipment				

Off-site Resources.

To be determined as needed by Department of Environmental Health & Safety.

5. Training Program

Training employees to familiarize them with the action plan and testing the plan's elements through mock spill exercises is critical to ensuring the success of the plan. Training and training exercises can prepare personnel, evaluate the plan holder's ability to respond to a spill and demonstrate to government and to the public that there is adequate preparation should a spill occur. Training should be performed annually at a minimum, and under typical operating conditions. (See Appendix D – Training Log)





Portable Fire Extinguishers:

Howard University does not require employees to use a fire extinguisher. However, the following guidelines are presented should an employee choose to attempt to extinguish the fire or need to use an extinguisher to escape from an area.

Fire extinguishers must match the class of fire being fought. Markings on the extinguisher body indicates the classes of fire for which the extinguisher is suited. Using the wrong extinguisher can intensify a fire condition, such as application of water to burning oil, thereby causing the oil to splatter, flash, and spread.

- Class A: this is suitable for cloth, wood, rubber, paper, various plastics, and regular combustible fires. It is usually filled with 2 ½ gallons (9.46 liters) of pressurized water.
- Class B: This is suitable for grease, gasoline, or oil-based fires is usually filled with a dry chemical. Extinguishers smaller than 6lbs (2.72kg) are not recommended.

- Class C: This is suitable for electrical fires caused by appliances, tools, and other plugged in gear. It can contain halon or CO2. Halon 1211 and 1301 is very expensive and depletes the ozone layer, but it is being replaced by no-depleting agents such as FM200. Note that halon is now illegal in numerous jurisdiction.
- Class D: This is used for water-reactive metals such as burning magnesium and will be located in factories using such metals. It comes in the form of a powder that must cover the material to extinguish it.
- Class K: This contains a special purpose wet chemical agent for use in kitchen fires and deep fryers to stop fires started by vegetable oils, animal fats, or other fats started in cooking appliances.
- **An all-purpose ABC dry chemical (10lb/4.5kg) extinguisher is a safe bet for most fires**, especially when you/re not sure of the fire’s origins.

Fire Extinguisher Types							
Extinguisher		Type of Fire					
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats	Special Notes
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No	Dangerous if used on "liquid fires" or live electricity.
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes	Not practical for home use.
	Dry Powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No	Safe use up to 1000v.
	Carbon Dioxide (CO2)	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes	Safe on high and low voltages.

There is a fire extinguisher with 75 feet of any occupied space in the building. Staff should familiarize themselves with the locations and types provided for their work area.

Before attempting to extinguish a fire:

- Make sure that Code Red procedures (“R.A.C.E.”) are being implemented.
- Make sure that the fire extinguisher is the proper type for the fire being fought.
- Make sure your back is toward a safe, unobstructed exit where the fire will not spread.
- If **ALL** of these criteria are not met, close the door to the fire area, evacuate, and wait for the Fire Department.

If you use a fire extinguisher, remember the **P.A.S.S.** system.
PULL the pin



AIM the nozzle at base of fire.



SQUEEZE the handle.



SWEEP from side to side.



6. Related Requirements

Following the above guidelines for spill contingency planning does not absolve the licensee from ensuring compliance with all applicable federal, territorial and/or municipal legislation.

Related requirements are:

Howard University Emergency Preparedness and Response Plan

DC Fire & EMS Hazmat Department

DC Office of Risk Management

Environmental Protection Administration

Others as determined

APPENDIX A: Hazardous Substance Inventory
Complete List (use additional sheets as needed)

Hazardous Substance	Manufacturer	Quantity/Unit of Issue

APPENDIX B : Inspection Log

A = Acceptable U = Unacceptable If any items are unacceptable attach Inspection Form with details.

Month	Year	Inspector Initials	Lids and Labels	Evidence Of Spills	Alarms or Sensor	New Product	Spill Kit Complete	Storm Drains	Items Fixed	Above Ground Tank	Below Ground Tank
Jan											
Feb											
Mar											
Apr											
May											
June											
July											
Aug											
Sept											
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Dec											

APPENDIX B (contd.) : Inspection Log Form

Acceptable	Unacceptable	
<input type="checkbox"/>	<input type="checkbox"/>	<p>Lids and Labels? Have all lids and caps been returned to their proper place? Do all the containers still have labels?</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>Evidence of Spills? Is there any indication that a spill might have occurred? If so, was the spill properly cleaned up? Was there any spill kit materials used? Was the Spill Log filled out for that incident? Any housekeeping issues?</p>
<input type="checkbox"/> issues?	<input type="checkbox"/>	<p>For Tanks with alarm systems only Any Alarms or Sensor Have there been any alarm conditions in the past month? If alarms have occurred, has the monitoring system been serviced by the manufacturer or an authorized service company? Is the system up and working at this time? Is the sensor working? Did you conduct a test of the alarm and the sensor? When was the last time the sensor was serviced?</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>New Hazardous Substances? Have any new chemical products been purchased? Do you have the MSDS for new products? Have you assessed how to store and handle this new product safely? Have you added the new hazardous substance to the inventory sheet in this plan? Is the container properly labeled?</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>Spill Kit Complete? Have any items been used from the spill kit? If items are missing, is there an associated entry in the Spill Log? Are there any items missing that are currently on order? Is the spill kit stored where it is supposed to be stored? Is there a sufficient supply of daily cleanup materials?</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>Storm Drains? Is there a buildup of sediment in the drain traps? Is there any evidence of drain clogging? Are the drain filters still intact? Any need replacing? Have they been replaced?</p>
<input type="checkbox"/> acceptable?	<input type="checkbox"/>	<p>Items Fixed? Have all deficiencies previously noted been fixed or made</p>

List any issues, deficiencies, or failures in detail:

APPENDIX C : Spill Log

Date of Spill	Location of Spill	Size of Spill (~ gal)	Prevention Measures Taken?	Spill Kit Materials Reordered?	Was the Spill Kit Adequate? (List any deficiencies, i.e. missing equipment, etc.)

APPENDIX D : Training Log

Employee's Printed Name	Signature	Date Completed

APPENDIX E : Important Telephone Numbers

Spill Reporting

If a hazardous substance spill exceeds 25 gallons or if any amount has been released to soil, surface water, or storm drains, notify the following agencies as applicable:

Howard University Public Safety	202-806-1100
Howard University Environmental Health & Safety	202-806-1033
DC Army National Guard Operations	202-685-9750
DC Homeland Security Emergency Management Agency (HSEMA)	202-727-6161
Environmental Protection Agency (EPA)	202-564-4700 1-800-438-2474
Federal Bureau of Investigation (FBI)	703-632-6578
Federal Emergency Management Agency (FEMA)	1-800-480-2520
FEMA (chemical/biological emergency)	1-800-424-8802
FEMA (radiological emergency)	202-586-8100
Fire Administration United States	301-447-1000
Hazardous Material Information Center	202-366-4488
National Capital Poison Center	202-625-3333 1-800-222-1222
National Institute of Health (NIH)	301-496-4000
Occupational Health & Safety Administration (OSHA)	1-800-321-6742 1-800-358-9206
PEPCO (life threatening)	202-872-3432
PEPCO (outage)	1-877-737-2662
Washington Gas (if you smell gas)	703-750-1400 1-800-752-7520
US Army Medical Research Institute of Infectious Disease (USAMRID)	301-619-4732