

Emergency Contingency Plan



Office of Environmental Health & Safety 5425 Woodward Avenue, Suite 300 Detroit Michigan 48202 313-577-1200 Phone 313-993-4079 Fax <u>oehs@wayne.edu</u> www.oehs.wayne.edu

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PURPOSE

The purpose of this plan is to minimize hazards to university students, staff, the public, and the environment, from fires, explosions or any unplanned sudden release of hazardous materials or hazardous waste to air, soil or water. The plan is to be consulted primarily by the Emergency Coordinators; however, all personnel involved in the management of hazardous materials and wastes at Wayne State University shall be familiar with the contents of this plan. In addition, the plan shall be circulated to appropriate emergency response units that might be involved with the emergencies described herein.

For the purpose of this plan, an emergency is defined as a fire, explosion, or release of hazardous material/waste which could threaten human health or the environment. The provisions of this plan must be carried out immediately whenever an emergency situation occurs.

GENERAL OPERATING PROCEDURES IN THE EVENT OF AN EMERGENCY

- From a safe location, notify the WSU Police Department (WSUPD) at 313-577-2222 that an emergency situation exists and give them all important information. WSUPD will conduct evacuation of the building if necessary.
- Contact the emergency coordinators to assess the situation. Consult the spill control and countermeasures plan. If radioactive materials are involved, contact the Office of Environmental Health & Safety (OEHS) Radiation Safety Officer or the Health Physics Specialist listed on the following page.
- **3.** Depending on the severity of the emergency, assistance would be requested from the following parties in order of importance:
 - A. WSU Police Department: 313-577-2222
 - B. WSU Office of Environmental Health and Safety: 313-577-1200
 - C. National Response Center: 1-800-424-8802
- **4.** After the emergency is over, restore facilities and safety equipment to preemergency status before resuming operations.

Office of Environmental Health & Safety Emergency Coordinator List

The following individuals in OEHS are trained to act as coordinators in the event of an emergency involving a hazardous material spill/release. Call the first person listed. If there is no answer, proceed to the next person on the list until you get an answer.

Primary Emergency Coordinators

Edward Speese, OEHS Hazardous Materials Specialist 20730 Moross Road Detroit, MI 48224 Direct Office Phone: 313-993-7676 Mobile Phone: 313-580-7934 Home Phone: 313-417-0053

Elena Fracassa, OEHS Environmental Health Specialist 3900 Bedford Detroit, MI 48224 Direct Office Phone: 313-993-5702 Mobile Phone: 313-319-0146

Secondary Emergency Coordinators

Lamont Branch, OEHS Hazardous Materials Technician 28680 Norwich Ct. Chesterfield, MI 48047 Direct Office: 313-875-5382 Mobile Phone: 313-721-0494

Sandamali Amarasingha Ekanayaka, OEHS Chemical Hygiene Officer 28737 Bayberry Park Drive Livonia, MI 48154 Direct Office Phone: 313-993-6614 Mobile Phone: 313-320-6458

Maha Srinivasan, OEHS Health Physicist and Radiation Safety Officer 1398 Falcon Drive Troy, MI 48098 Direct Office Phone: 313-577-0019 Mobile Phone: 313-673-1896 Home Phone: 248-879-1123

Wendy Barrows, OEHS Health Physics Specialist 46595 Apple Lane Macomb, MI 48044 Direct Office Phone: 313-577-9505 Mobile Phone: 248-930-8292

Additional Emergency Numbers

WSU Police Department: 313-577-2222

Henry Ford Hospital Emergency Department: 313-916-2600

Detroit Receiving Hospital Emergency Department: 313-745-3000

Michigan Department of Environment, Great Lakes, and Energy (DEGLE) Warren Office: 586-753-3700 Lansing Office: 517-284-6651

Pollution Emergency Alerting System (PEAS): 1-800-292-4706 (Michigan Only)

National Response Center: 1-800-424-8802

Marine Pollution Control (Spill Response): 313-849-2333

Nuclear Regulatory Commission (NRC): 1-800-522-3025

LOCATION AND DESCRIPTION OF EMERGENCY EQUIPMENT

Office of Environmental Health and Safety

5425 Woodward Avenue, Room 411 Detroit, MI 48202 313-577-1200

This room is kept locked at all times, only authorized personnel can enter. Office hours are M-F 8:30-5:00. After hours calls to the main office number are forwarded to OEHS staff members.

Personal Protective Equipment

3-Powered air purifying respirators with high efficiency particulate filters
5-MSA SCBA with a 30 minute (rated) air supply
4-Tyvek Paper Suits
4-Kappler CPF 3 Suits
1-Box Disposable Latex Gloves
4- Pairs Silver Shields Gloves
4-Pairs Leather Work Gloves
2-Face Shields
2-Chemical Aprons
3-Hardhats

Spill Response Equipment

2-Mercury Spill Kits
1-Wet/Dry Vacuum
1-Box of Diking Material
8-50lb bags oil dry
4-Rolls Absorbent Padding
2-Boxes Chemical Spill Pillows
3-Gallons Clorox Bleach
3-Chemical Classifiers
2-Boxes pH paper
4-Caustic Spill Kits
4-Acid Spill Kits

Emergency Response Equipment

1-Broom
1-Mop
2-Mop Heads
1-Non-Sparking Shovel
2-Floor Squeegees
2-Dust Pans
1-Roll CAUTION Tape
2-Decon Buckets with Scrubbers
1-Gas Detection Kit
3-First Aid Kits

In addition, the OEHS Compliance Officer, Environmental Health Manager, Environmental Health Specialist, the HAZMAT Manager, HAZMAT Specialist, HAZMAT Technicians, and the Director have Survivair full face and half mask respirators with air purifying cartridges for non-IDLH conditions.

Other University Buildings

All other university buildings containing laboratories using hazardous chemicals have automatic sprinkler systems installed. They may be throughout the entire building or in specific areas. A combination of Class A (water), ABC (dry chemical) and BC (carbon Dioxide) fire extinguishers are located in hallways outside the labs and any combination of Class ABC, BC and D fire extinguishers can be found inside the labs.

Fire alarm pull stations are located in conspicuous locations in the hallways on all floors. Fire alarm systems within university buildings are connected via a proprietary supervising station connected to the WSU Police Department. Fire alarms and fire trouble should be reported to the WSU Police Department at 313-577-2222.

The four classes of fires are:

- Class A ordinary combustible materials (i.e., paper, wood, cloth)
- Class B flammable liquids/chemicals/gases and oils
- Class C energized electrical equipment
- Class D combustible metals such as magnesium, sodium, and potassium

Description of Emergency Equipment

The Office of Environmental Health and Safety maintains emergency equipment for the purpose of responding to hazardous material releases. The equipment is primarily stored at Wayne State University's Office of Environmental Health and Safety at 5425 Woodward Avenue in Room 411. Brief descriptions of some of the emergency equipment are given to describe their capabilities and how they may be useful during chemical incidents.

- **1. Personal Protective Equipment** consists of chemical resistant coveralls and gloves, respirators, and eye and face protection.
 - **A.** Tyvek coveralls provide a barrier to many dry particulates, including asbestos and other hazardous dusts. Tyvek resists abrasions, punctures and tears.
 - **B.** Kappler coveralls provide a barrier to many dry particulates as well as chemical liquids. Kappler forms a more effective barrier against a broader range of chemicals than Tyvek.
 - **C.** Chemical resistant gloves such as nitrile gloves offer protection against most common solvents, oils and acids.
 - **D.** Leather gloves provide protection against abrasions, punctures and cuts.
 - **E.** Rubber apron provides protection against various solvents, oils, greases and light acids.
 - **F.** Chemical resistant goggles and face shield provide eye and face protection whenever a splash hazard may be present. Goggles and face shield are resistant to mild acids, caustics, aromatics, hydrocarbons and methylene chloride.
 - **G.** Air purifying respirators will provide respiratory protection against acid gases, organic vapors and airborne particulates.
 - **H.** Self-contained breathing apparatus (SCBA) is the highest level of respiratory protection. If properly worn it will protect workers from atmospheres identified as Immediately Dangerous to Life or Health (IDLH).

2. Miscellaneous Equipment

- **A.** pH paper (range 1-14) may be utilized to check whether a spilled liquid is acidic, neutral or basic.
- **B.** Household bleach can be diluted 1:10 with water and used as a disinfectant in cleaning up biological hazards.
- **C.** Emergency Cleanup System acid spill kit, sodium bicarbonate, spill pillows and spill absorbent pads can be utilized to clean up acid spills.
- **D.** Emergency Cleanup System caustic spill kit, soda ash, spill pillows and spill absorbent pads can be utilized to clean up caustic spills.
- **E.** Emergency Cleanup System solvent spill kit, spill pillows and spill absorbent pads can be utilized to clean up solvent spills.
- **F.** Combustible gas meter (MultiRae) can be utilized to monitor for lower explosive atmospheric conditions. This condition may be present if a combustible or flammable material has been released.

ARRANGEMENTS WITH LOCAL AUTHORITIES

The WSU Police Department, City of Detroit Fire Department, University Health Center personnel and Marine Pollution Control all have a role in the Wayne State Contingency Plan. Our arrangement with them includes but is not limited to the following:

WSU Police Department: Provide assistance in evacuation, crowd control, search and rescue, first aid, and other related police activities.

City of Detroit Fire Department: Provide fire response, evacuation, search and rescue, first aid, response to hazardous materials releases.

University Health Center: Provide medical evaluation and treatment.

Marine Pollution Control: Provide assistance in spill response other related activities.

The WSU Police Department, City of Detroit Fire Marshal, University Health Center personnel and WSU Office of Enterprise Risk Management shall review this plan. The Office of Environment Health and Safety shall meet with appropriate representatives of these departments as needed to familiarize them with the layout of the large quantity generators, properties and associated hazards of the hazardous wastes, places where facility personnel would normally be working, types of hazardous materials located in buildings, and access to all storage sites.

In the event that the above departments require additional assistance from other local and state emergency authorities, they will request such assistance as needed in consultation with the emergency coordinators.

CONTINGENCY PLAN MAILING LIST

Michigan Department of Environmental Quality Attn: James Day Southeast Michigan District Office 27700 Donald Court Warren, MI 48092-2793 (586) 753-3700

Wayne State University, Police Department Attn: Anthony Holt - Chief of Police Police Department 6050 Cass Avenue Detroit, MI 48202 313-577-2062

Detroit Fire Department Attn: Shawn Battle (Chief of Fire Prevention) / Gregory T. Turner (Fire Marshal) Detroit Public Safety Headquarters 1301 Third St Suite 705A Detroit, MI 48226 313-596-2900

University Health Center Attn: University Health Center 4201 St Antoine St Detroit, MI 48201

Wayne State University, Enterprise Risk Management & Insurance Programs Attn: William Kemp - Associate Director State Certified Fire Inspector 5700 Cass, Suite 4622 Detroit, Michigan 48202 313-577-3313

Marine Pollution Control Attn: 8631 W Jefferson Ave Detroit, MI 48209 313-849-2333

Spill Prevention, Control, and Countermeasures

The following is a guideline for spill control, evacuation, notification of proper authorities and general emergency procedures in the event of a chemical incident at the large quantity generators site, chemical storage areas or laboratories maintained by Wayne State University.

Spill Control

- 1. <u>Non-ignitable, low toxicity liquids or solids and not generally dangerous gases</u> may be handled by first setting up restricted access to the spill area for small spills or evacuating the room/area in the case of large spills. The Office of Environmental Health and Safety should be called to initiate spill response/clean-up procedures. Chemical aprons, impermeable clothing, multiple cartridge respirators and/or selfcontained breathing apparatus should be worn consistent with the associated hazard. It is the emergency coordinator's responsibility to determine the level of safety equipment required. A minimum of two (2) trained clean-up personnel should always respond to any chemical spill. Further back-up personnel should then be called as required. Inert adsorbents or neutralizing materials may be used to prevent spreading of liquids. The absorbed liquids can then be carefully swept up and placed into plastic pails with covers.
- 2. Ignitable liquids or solids, highly toxic materials, materials generating dangerous gases and/or reactive materials may be handled by first evacuating the room/area in the case of any size spill and if there may be any potential hazard to other areas and people in the building, then the entire building or an extended area of evacuation should be initiated. Notify WSU Police immediately. If the spill or hazard is sufficiently small, trained campus personnel can initiate the spill clean-up. This decision is to be made by the emergency coordinator. If the hazard is determined too great for university personnel to safely handle clean-up procedures, outside agencies/contractors should be called depending on the type of emergency. University spill response personnel are equipped to handle low risk chemical emergencies. Any level "A" protection clean-ups or level "B" protection clean-ups requiring extensive clean-up time (greater than 30 minutes) should be handled by properly equipped clean-up personnel. WSU does not have sufficient emergency equipment to safely respond to a clean-up in an immediately dangerous to life and health alarm. Small spills of these types of materials can be handled by at least two (2) university response personnel. Proper safety and clean-up equipment should be used as required by the type of hazard involved.

Chemical Spill Countermeasures

1. Site personnel

- **A.** Attend to any persons injured or may have been exposed to any hazardous material, without placing yourself in danger.
- **B.** For all emergencies and after-hours incidents, call WSU Police at 313-577-2222 and notify persons in the immediate area of the hazard.
- **C.** Assess the situation (from a safe distance) as to:
 - type and size of spill
 - type of hazard (chemical, biological, radioactive)
- **D.** For non-emergencies during regular work hours (M-F, 8:30 AM to 5:00 PM), call the Office of Environmental Health and Safety at 313-577-1200 for assistance.
- **E.** DO NOT attempt clean-up of any hazardous materials without first calling these emergency numbers. Assistance and/or spill response equipment will be provided by the Office of Environmental Health & Safety.

2. On-Scene Coordinator (responding to spill)

- **A.** Assess the situation from a safe distance.
- **B.** Attend to any injured persons.
- **C.** Determine what chemicals are involved.
- **D.** Determine the hazard of the chemicals.
- **E.** Determine the extent of the hazard.
- **F.** Notify appropriate outside agencies, if applicable.
- **G.** Set-up restricted area and evacuate the area.
- **H.** Stabilize the situation if possible.
 - Shut off gas, electric or chemical feed lines.
 - Remove hazardous materials from area, if it can be done safely.
- I. Determine the level of protection required for personnel entering the restricted area.
- **J.** Enter spill area, if appropriate, to further assess the situation and rescue victims using the proper level of personnel protection as required by the hazard.
- **K.** Initiate and direct clean-up of the area.
- L. If any residue needs to be processed or treated, do it away from the spill area.
- **M.** Dispose of all contaminated materials.
- **N.** Perform follow-up analysis of the area.
- **O.** Restore area to its original condition.

Evacuation Plan

1. Emergency Evacuation Procedures (Fire, Gas Leak, Hazardous Materials Release)

- **A.** Ensure personal safety
- **B.** Move away from hazardous area
 - Take valuables from the immediate work area only
 - Alert other occupants pull fire alarm, verbally notify
- **C.** Evacuate to outside of building via closest stairs. DO NOT USE ELEVATORS
- **D.** Ensure doors are closed behind you as you exit building
- E. Keep clear of driveways and building entrances
- F. Meet at the area designated by your department, building coordinator, etc. for headcount
- **G.** Notify University Police Department
 - University Blue Light phones
 - External or mobile telephone
- **H.** WSUPD will notify occupants when it is safe to return

2. Remain in Building Emergency Procedures (Tornado, Earthquake, Isolated Incidents)

A. Identify problem

- Monitor radio reports
- Notify building occupants of potential hazard
- Stay alert for visible warning
- **B.** Ensure personal safety if event occurs
 - Move to lower floors and interior areas, such as bathrooms or closets
 - Stay away from doors and windows
 - Do not use elevator
 - Go to interior room, bathroom or closet
 - If there is no time, shelter under a desk, protect your head
- **C.** Notify WSUPD

3. Evacuation Procedures for Disabled Persons

Upon request, faculty, staff, and students are encouraged to assist in the evacuation of any disabled person on campus in the event of an emergency, unless this action places the faculty/staff/student in personal danger (such as going back into a building once you have already exited, entering burning or smoky rooms, or passing through burning or smoky areas). Once outside the building, faculty, staff, and students are further required to notify emergency personnel of any person known to be remaining in the building.

Disabled persons who may be occupying a facility outside of normal business hours (generally, between 5:00 PM and 8:00 AM, Monday through Friday, and all day Saturday and Sunday) are encouraged to call the University Police Department to let them know that they are in the building.

A. Evacuation with Assistance

- Blind, but mobile, persons should first be moved out of the rush of traffic then assisted to the nearest exit.
- Deaf, but mobile, persons should be calmly advised of the need to evacuate then assisted to the nearest exit.
- Temporarily immobilized persons (including those people wearing casts and/or using canes or crutches) should be given assistance as needed based on their ability to maneuver to an exit or to a designated Area of Refuge.
- Permanently immobilized persons (those individuals who have either limited or no use of their legs and must rely on crutches, wheelchairs, or walkers for transport in buildings) should be assisted as follows:
 - As soon as an emergency is known, one person should remain with and assist the disabled individual.
 - The disabled individual should be quickly moved to an exit if one is located on that floor of the building. If an exit to the outside is not located on that floor, then the disabled individual should be moved to an established Area of Refuge. Maps designating these established areas will be posted near each exit on every floor of the building. Generally, both individuals should remain inside the building until they have been given the okay to leave, or until emergency response personnel arrive and assist them in exiting the facility.

B. Evacuation Without Assistance

If a disabled individual is not able to locate another occupant for assistance, then they will follow these procedures:

- If the individual is in close proximity to an exit that opens immediately to the outside, if it is safe to exit on their own, they should do so.
- If not, they should move to an Area of Refuge. Generally, the individual should remain inside the building until they've been given the okay to leave, or until emergency response personnel arrive to assist with exiting the facility.
- If the disabled person is not able to move to an Area of Refuge, the person should, if possible, open the bottom of an exterior window, or break a windowpane, and wait by the window for rescue. Any additional signaling from the window will further assist to notify emergency response personnel of the exact location of the disabled person. The individual should remain in this area until they have been given the okay to leave, or until emergency response personnel arrive and assist with exiting the facility.

4. Rescue Priorities

As stated in Section II, the evacuation of ALL occupants of a facility is of primary importance in any emergency. Since life safety comes first, the rescue of disabled persons will be a top priority of the emergency response personnel.

5. Implementation of Evacuation Procedures

These evacuation procedures have been established in order to provide the optimum level of safety for disabled persons in an emergency situation. Based on these procedures, the University Enterprise Risk Management Fire Safety Inspector, with the assistance of the Building Coordinators, will designate and establish Areas of Refuge in each facility. Facility Planning & Management will provide the maps and signage for each building. Finally, the Building Coordinators and Enterprise Risk Management Fire Safety Inspector will be responsible for reviewing the evacuation plans and then ensuring that each person in the facility is reasonably aware of the evacuation procedures and the obligation to assist those who may require help. Prior to the beginning of each semester, each department will review the name and location of each person employed by them who is disabled or who may require assistance. This information will be conveyed to the Building Coordinators.

Building Floor Plans

Floor plans of WSU buildings are posted at link below:

https://research.wayne.edu/oehs/hazardous/emergency-plan

Spill Response Personnel

University Police Department will notify members of the spill response team (see list) and any other appropriate agency.

Emergency Coordinator

One emergency coordinator should always be present to advise assisting agencies/personnel of the character, amounts, source and extent of hazardous materials to local/state/federal authorities in the event of a life threatening situations at any university facility.

Whenever there is a release, fire or explosion of hazardous waste/materials, the emergency coordinator must immediately identify the character, exact source, amount and extent of any released materials. This may be done by observation or review of facility records and, if necessary, by chemical analysis.

Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from a 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, irritant or asphyxiating gases that are generated or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and greatly induced explosions).

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

- If the assessment indicates that evacuation of local areas may be advisable, immediately notify appropriate local authorities and help the appropriate officials decide the extent of the evacuation.
- Immediately notify the National Response Center (1-800-424-8802) and report:
 - a. Name and telephone number of the reporter
 - b. Name and address of the facility
 - c. Time and type of incident (e.g., release, fire, etc.)
 - d. Name and quantity of material(s) involved, to the extent known
 - e. The extent of injuries, if any
 - f. The possible hazards to human health or the environment outside of the facility

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

Immediately after an emergency, the emergency coordinator must provide 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 a facility no waste materials which may be incompatible with the released material is treated, stored or disposed of until clean-up procedures are completed; and all emergency equipment listed in this plan is cleaned and fit for its intended use before operations are resumed.

Comments/Concerns

Wayne State University always welcomes any comments or concerns that may arise from any policies and procedures that have been put into effect. Questions/comments concerning this policy should be referred to the WSU Office of Environmental Health and Safety at 313-577-1200 or the Enterprise Risk Management & Insurance Programs Fire Safety Inspector at 313-577-3110.