

Emergency Contingency Plan For Hazardous Materials Incidents

**Environmental Health and Radiation Safety
Department**

Procedure HM-08-042

Created: March, 1995
Revised: July, 1999
May, 2001
May, 2003
April, 2005
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April, 2007
July 16, 2007
February 19, 2008
July 25, 2008
December 20, 2009
March 23, 2012
July 10, 2012
July 19, 2016
June 2, 2017
June 1, 2018
May 22, 2019
May 13, 2020
May 13, 2021
May 12, 2022
April 17, 2023
March 18, 2024
March 17, 2025

QUICK REFERENCE GUIDE

1. Types of Hazardous Wastes, Maximum Volumes and Associated Hazards
 - a. Main Campus
 - i. Bowman Oddy Chemical Stockroom (BO 1073 Suite)
 1. BO 1075 (Organics)
 - a. Chlorinated and Non-Chlorinated Hazardous Waste Solvents
 - i. Flammable, Toxic, Health Hazard, Corrosive, Irritant
 - ii. Up to 600 Gallons
 2. BO 1070F (Corrosives)
 - a. Hazardous Waste Corrosives
 - i. Corrosive, Irritant, Oxidizer
 - ii. Up to 20 Gallons
 3. BO 1077 (Inorganic)
 - a. Hazardous Waste Inorganics
 - i. Toxic, Oxidizer, Corrosive, Irritant
 - ii. Up to 60 Gallons
 - ii. HazMat Shed (Plant Operations Complex)
 1. Southwest Bay
 - a. Maintenance Related Hazardous Wastes, Including Oil-Based Paints, Spent Aerosols, Lubricating Oils and Acid Drain Cleaner
 - i. Flammable, Toxic, Health Hazard, Corrosive, Irritant
 - ii. Up to 125 Gallons
 - iii. Research and Technology Complex 1
 1. 1100B
 - a. Heavy Metal Wastes in Solid and Liquid Form
 - i. Flammable, Toxic, Health Hazard, Corrosive, Irritant
 - ii. Up to 200 gallons of volume
 - b. Hazardous Waste Corrosives
 - i. Corrosive, Irritant, Oxidizer
 - ii. Up to 10 Gallons
 - b. Health Science Campus
 - i. Health Education Building, Room 021
 1. Chlorinated and Non-Chlorinated Hazardous Waste Solvents and Waste Medications from research and clinical operations
 - a. Flammable, Toxic, Health Hazard, Corrosive, Irritant

b. Up to 500 Gallons

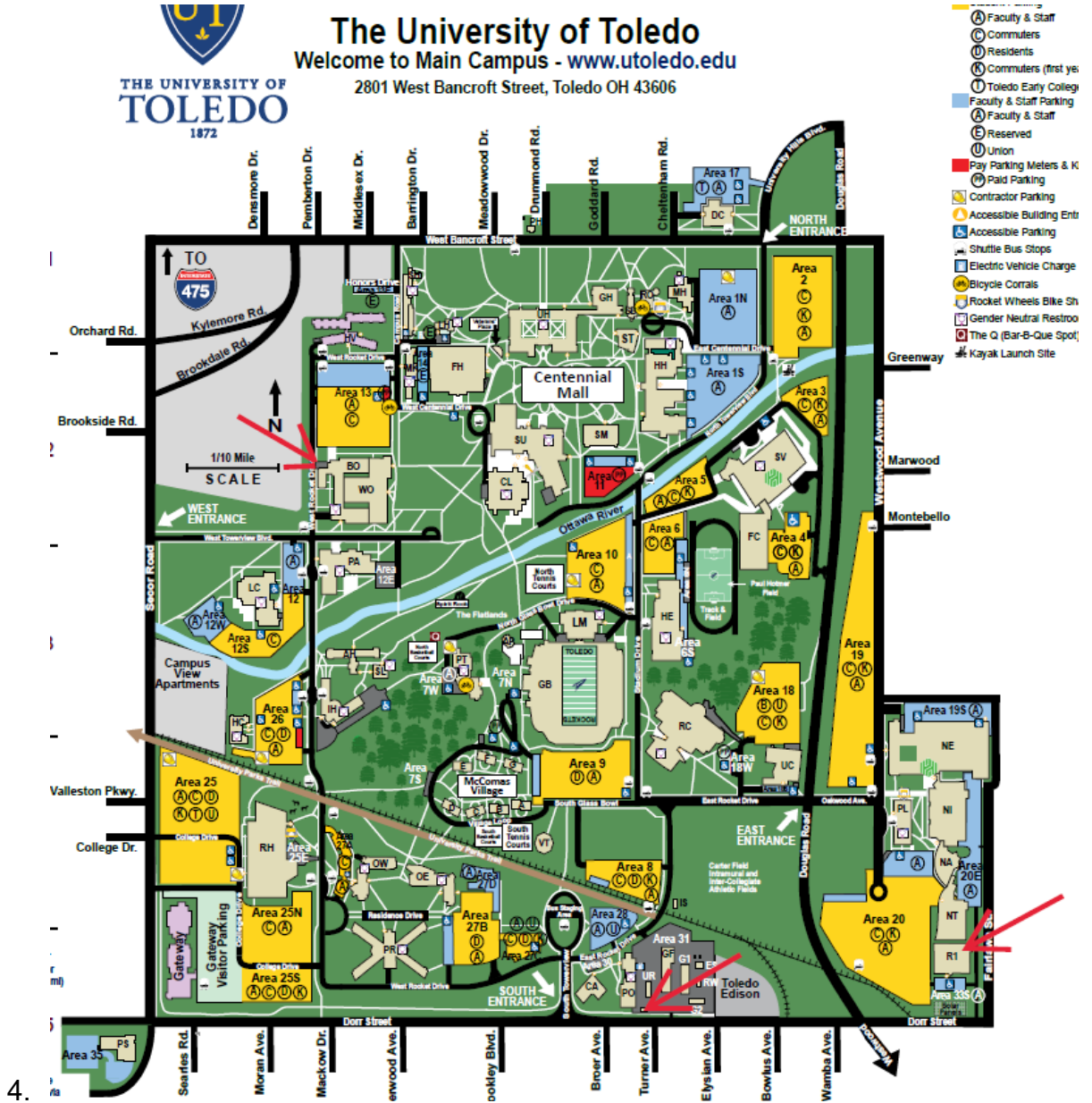
2. Hazardous Wastes Requiring Special Medical Treatment

a. Main and Health Science Campus

i. Hydrofluoric Acid

1. Some labs on campus use small amounts of Hydrofluoric acid to etch glass. Exposures to Hydrofluoric acid is typically treated with various forms of Calcium gluconate.

3. Facility Maps
 a. Main Campus
 i. Area and Street Map



Wolfe Hall Research Hazardous Waste Generation

1. Wolfe Hall/Bowman Oddy Building (Indicated by North arrow on previous map)

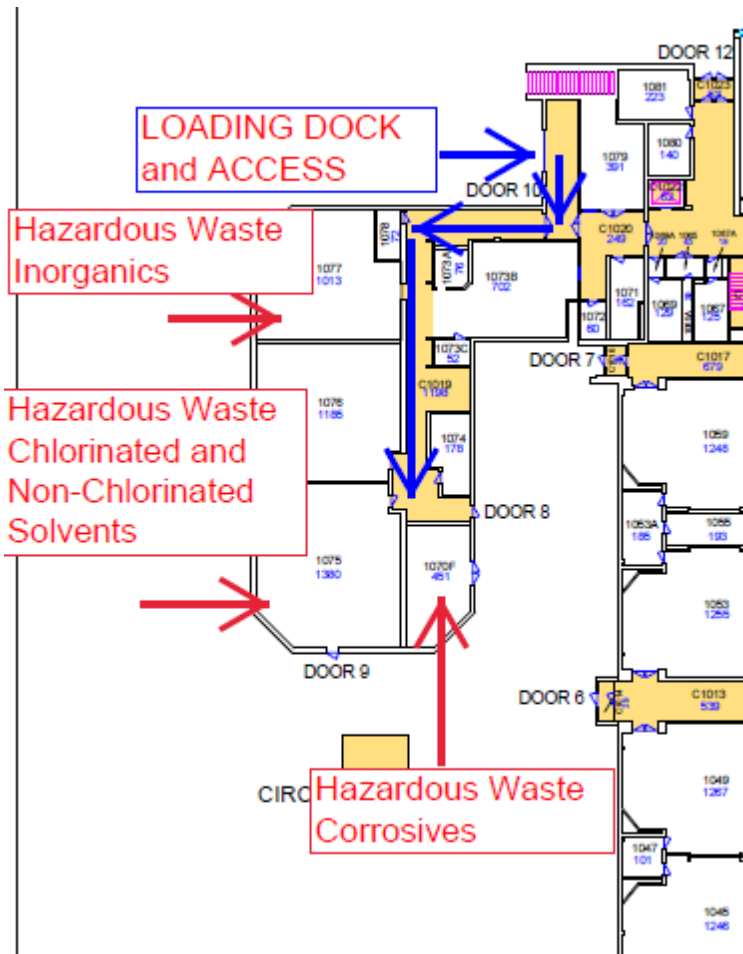
- a. The majority of chemical hazardous waste generated in the Wolfe-Hall/Bowman Oddy complex is generated on the 2nd and 3rd floor of Wolfe Hall in various chemistry laboratories. The 2nd and 3rd floor are very similar in layout.



- 2. Bowman Oddy First Floor Map (BO 1073 Chemical Stockroom Boxed).
 - a. Wolfe Hall/Bowman Oddy Building indicated by North arrow on previous map.

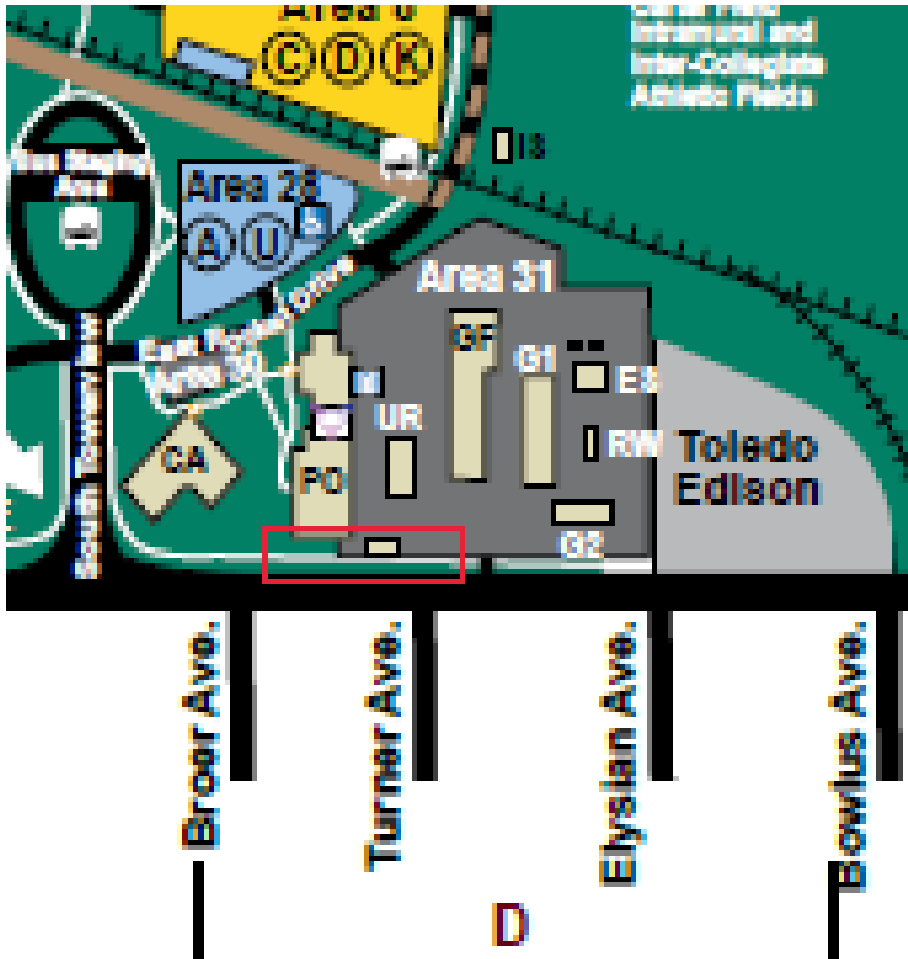


- 3. Bowman Oddy Chemical Stockroom Detail.
 - a. Wolfe Hall/Bowman Oddy Building indicated by North arrow on previous map



ii. HazMat Shed

1. Location indicated by south central arrow on main campus area and street map. Wastes stored in this location are primarily maintenance related (used aerosols/paints/coolants/oils).

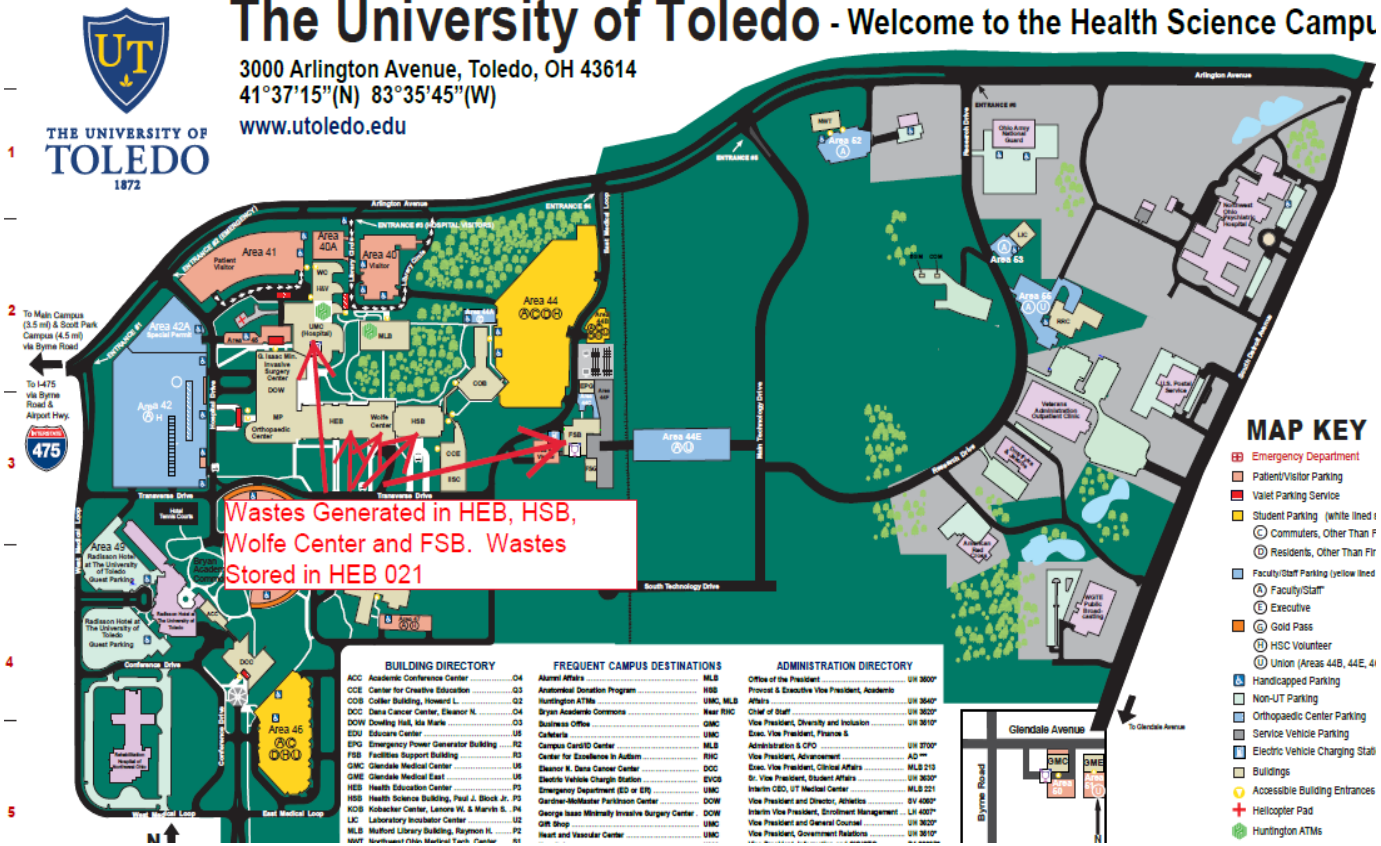


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b. Health Science Campus

i. Area and Street Map

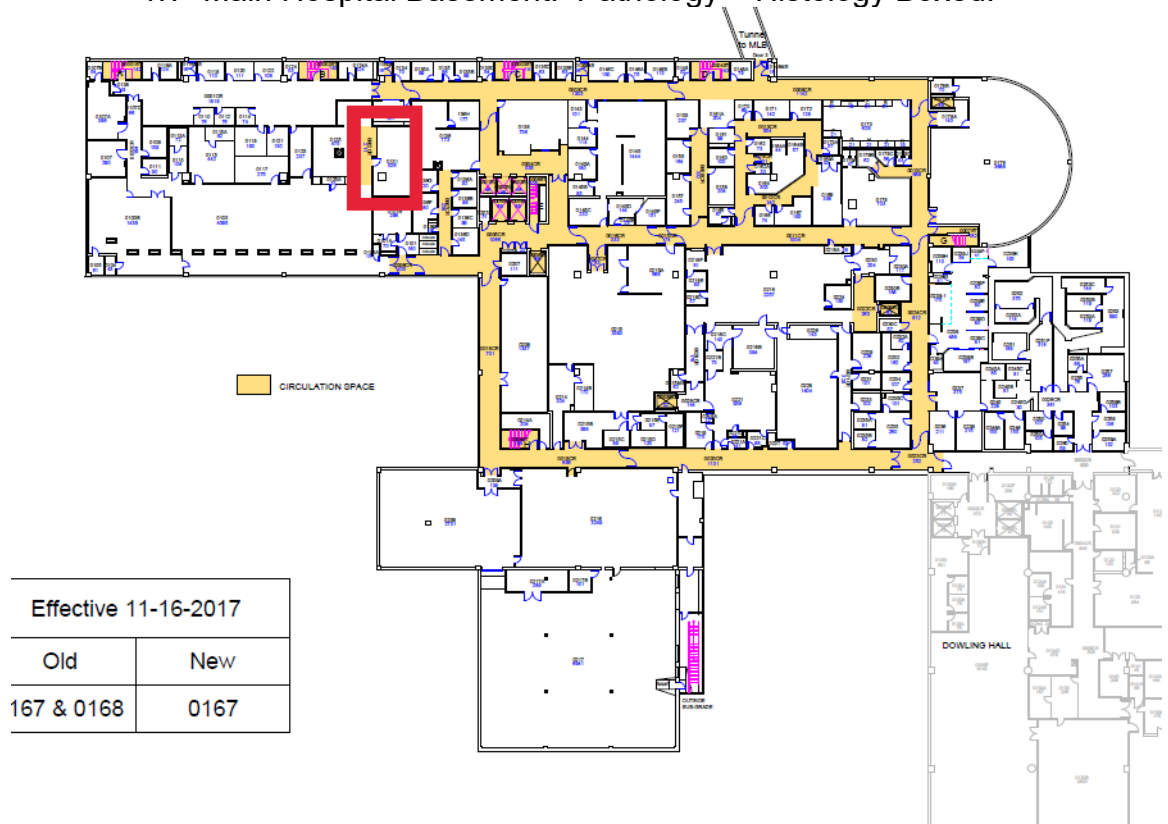
1. The majority of waste generation on the Health Science Campus takes place in the following labs:
 - a. Hazardous Wastes are stored in the Basement of the Health Education Building, Room 021.
 - b. Various labs on the 2nd Floor Health Education Building and Frederick and Mary Wolfe Center
 - c. UT Main Hospital Basement Pathology – Histology.
 - d. Various Labs on floors two through 5 of the Health Science Building
 - e. Plastination Lab in the Facilities Support Building



iii. Health Education Building and Frederick and Mary Wolfe Center, 2nd Floor

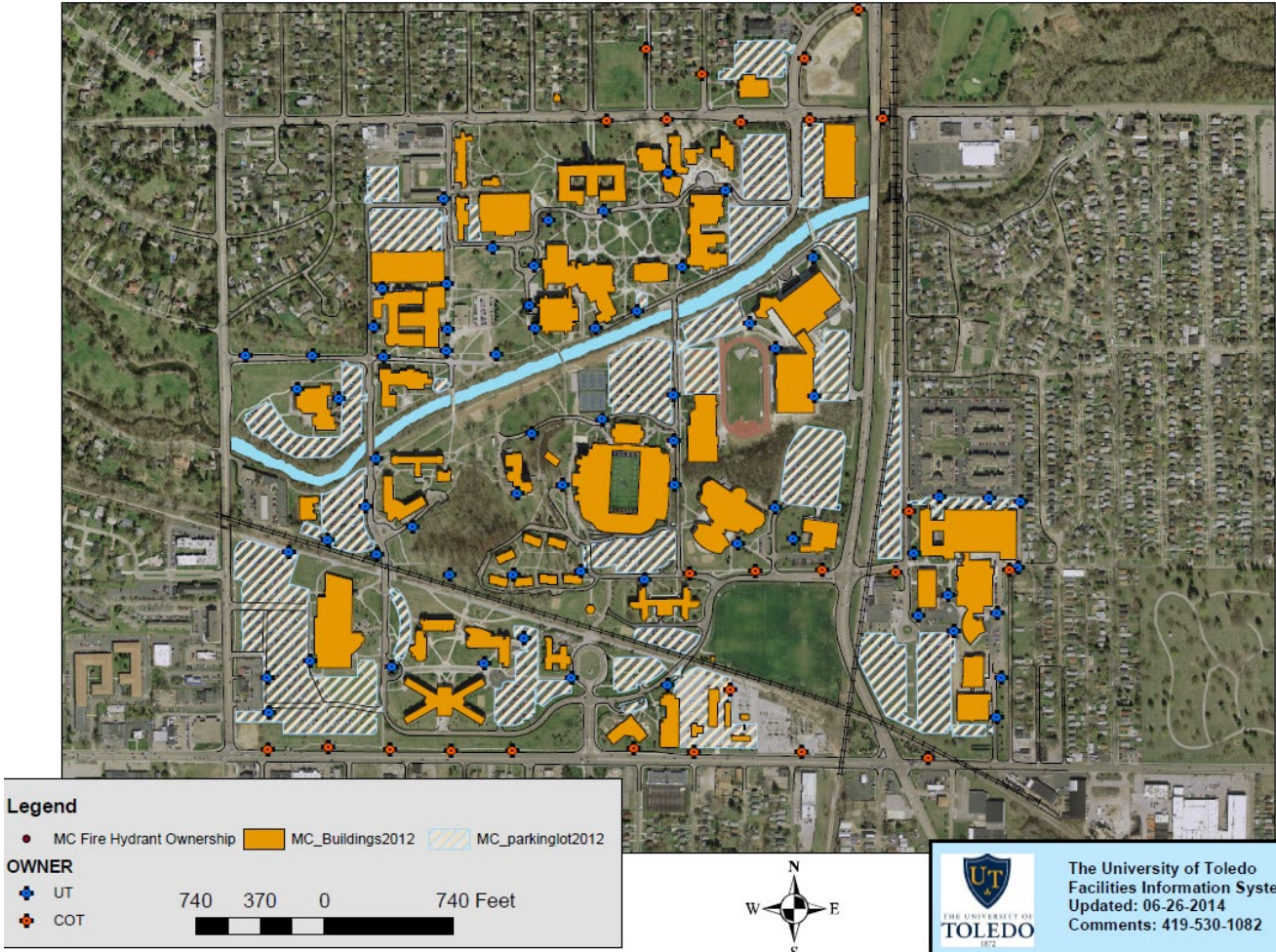


iv. Main Hospital Basement. Pathology – Histology Boxed.



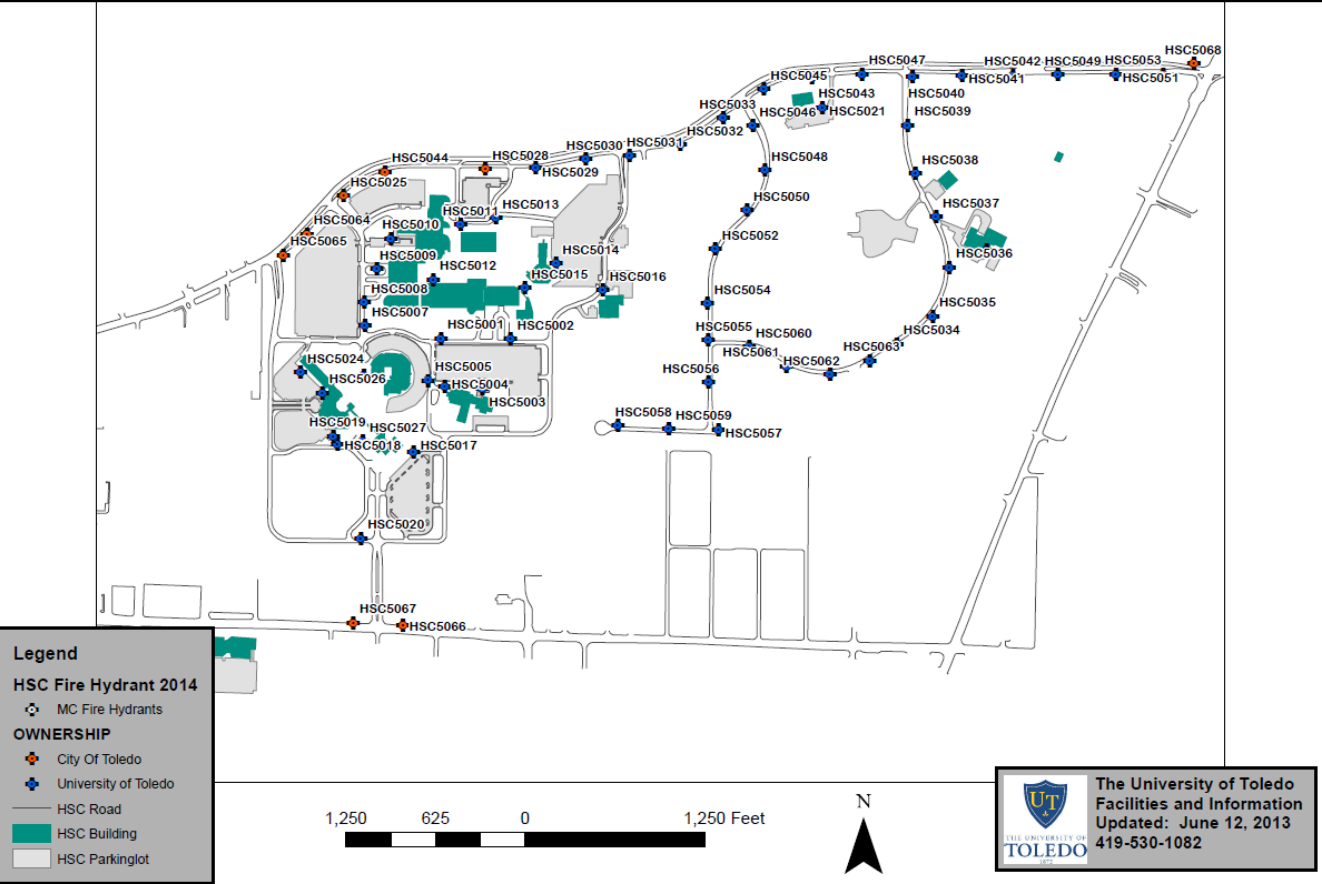
5. Locations of Fire Hydrants
a. Main Campus

UT Main Campus Fire Hydrants



b. Health Science Campus

Health Science Campus Fire Hydrant ID and Ownership



Legend

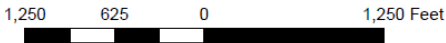
HSC Fire Hydrant 2014

- MC Fire Hydrants

OWNERSHIP

- City Of Toledo
- University of Toledo

- HSC Road
- HSC Building
- HSC Parkinglot



The University of Toledo
Facilities and Information
Updated: June 12, 2013
419-530-1082

6. On-Site Notification Processes

- a. Main and Health Science Campus waste generation and storage areas are protected by smoke/heat detection, automatic suppression systems and alarms. Generation areas in Wolfe Hall, Health Education Building and Block Health Science as well less than 90 day areas at Bowman Oddy and Health Education Building also have flow alarms associated with the suppression systems. Alarms are currently monitored in UT HSC Security.

7. Emergency Coordinator

	Office	Pager	Cell
Heather Lorenz (Primary) Director, EHRS (Office) 3000 Arlington Ave. Toledo, OH 43614	419-530-3603	419-218-3948	419-206-0896
Tim Niederkorn (Alternate) (Office) 2801 W. Bancroft Toledo, OH 43606	419-530-3605		419-704-1576
Skylar Rohrs (Alternate) (Office) 3000 Arlington Ave. Toledo, OH 43614	419-383-5089		419-966-2525

Other Emergency Numbers

1. UT Campus Security 419-383-2601
2. Toledo Fire Department (Haz. Mat. Unit) 419-244-3473
3. EHRS 419-530-3600
4. Radiation Safety 419-383-4301
5. Infection Control 419-383-5006
6. Ambulance 911
7. EPA National Response Center 800-424-8802
8. Chem-trec 800-424-9300
9. Rader Environmental 800-858-7374
10. Midwest Environmental Control 419-382-9200
11. Facilities Services
419-530-1000(MC) or 419-383-5353(HSC)
12. Ohio EPA Spill Reponse 800-282-9378
13. City of Toledo Environmental Services via Engage Toledo
419-936-2020
14. Lucas County LEPC 419-213-6502
15. Toledo Fire Department 419-936-2647
16. Toledo Lucas County Health Department 419-213-4100

PURPOSE

The purpose of this plan is to minimize hazardous material exposures to University of Toledo Campuses' faculty, students, staff, the public and the environment, from fires, explosions or any unplanned sudden release of hazardous materials or hazardous waste to the air, soil or water. These incidents shall be referred to as Hazardous Materials Incidents. This plan is to be consulted primarily by the "Director of Environmental Health and Radiation Safety (EHRS), and their designees"; however, all personnel involved in the management of hazardous materials and wastes at the University of Campuses 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, a significant emergency is defined as a fire, explosion or release of hazardous material or waste which could threaten human health or the environment. With a spill or release of any chemical, solid or liquid, considered to be significant, the occurrence shall be considered a Hazardous Materials Incident until proven otherwise. The provisions of this plan shall be carried out immediately whenever a significant Hazardous Materials Incident occurs.

Currently the University of Toledo Campuses have three designated 90-day hazardous waste storage locations. They are located in the Hazardous Waste Storage Shed at Plant Operations (MC), Bowman-Oddy Chemical Storage Facility (MC), and room 021 Health Education Building (HSC). Hazardous waste at the University of Toledo is handled by three groups of people. First, those individuals working in research settings, including faculty, staff, and students, who generate and label hazardous waste from a variety of experiments. Secondly, facilities maintenance staff at the University of Toledo who may generate and label hazardous waste due to certain activities on campus. Finally, EHRS staff members who are contacted by the above groups for hazardous waste pick-up's who handle, process, manifest, and prepare the waste for offsite disposal.

General Facility Identification Information:

Mailing Address - All Campuses

**The University of Toledo
2801 West Bancroft St.
Toledo, Ohio 43606
(419) 530-3600 Fax (419) 530-3606**

Physical Address - All Campuses:

**Main Campus: (Mail Stop #895, Center for Public Safety)
3333 Dorr Street
Toledo, Ohio 43606**

The main campus of the University of Toledo is located on a rectangular shaped piece of land comprising 226 acres, the Health Science Campus is about 450 acres, and the Scott Park Campus is about 160 acres. The buildings on main campus which routinely generate hazardous materials are: the Bowman-Oddy Laboratories, Wolfe Hall, McMaster Hall, Ritter Observatory, the Services Complex, the Health and Human Services, and the Student Medical Center. On the Health Science Campus, buildings which routinely generate hazardous materials include: Block Health Science Building, Dowling Hall, Health Education Building, Main Hospital and Ruppert Building.

Main Campus:
2801 West Bancroft St.
Toledo, Ohio 43606
EPA ID #OHD051623734

Westwood Campus:
1700 N. Westwood Ave.
Toledo, Ohio 43607
EPA ID #OHD178302709
The buildings on the Westwood campus which routinely generate hazardous materials are: Nitschke Hall, North Engineering, Palmer Hall and the R1 facility.

Center for Visual Arts:
2445 Monroe St.
Toledo, Ohio 43620
EPA ID #OHD068101989

Lake Erie Research and Education Center
6220 Bayshore Road
Oregon, Ohio 43618
EPA ID #OHR000135921

University of Toledo-Health Science Campus
3000 Arlington Ave.
Toledo, OH 43614
EPA ID #ODH087047353

I. GENERAL OPERATING PROCEDURES IN THE EVENT OF A SIGNIFICANT EMERGENCY

- a. Per EHRS "Hazardous Materials Spill" Policy HM-08-013. Evacuate all personnel from the area and call 911. Give them the following information:
 - 1. Name
 - 2. Location
 - 3. Chemicals involved
 - 4. Precautionary Measures taken
- b. Dispatch shall contact the EHRS representative on call to assess the situation immediately (consult the University Spill Prevention Control and Countermeasures Plan (SPCC) HM-08-036). If radioactive materials may be involved, contact a representative of Radiation Safety (419-383-4301).
- c. The staff person reporting the incident shall remain in charge of the area until Campus Police arrive. Campus Police shall be responsible (Incident Commander) until a EHRS representative arrives. If necessary the full contingency, or emergency operations plan, or possibly a Code Orange (for contaminated persons) will be initiated and the Incident Command System (ICS) will be activated along with the opening of the Command Center. A formal Incident Commander will be appointed as needed to resolve the incident.
- d. Depending on the severity of the emergency, assistance would be requested from the following parties in order of importance:
 - 1. Campus Police 419-530-2600
 - 2. EHRS 419-530-3600
 - 3. Toledo Fire and Police 911
 - 4. Radiation Safety 419-383-4301
 - 5. Rader Environmental 419-424-1144
 - 6. Midwest Env. Control 419-382-9200
 - 7. Total Env. Services 419-244-6555

The Director of EHRS, or designee, shall be responsible for deciding if and what outside agency or contractor should be contacted. If, at the time of the incident the decision has been made to contact an outside agency, or the media is expected, the Office of Communications shall be contacted. Any and all contact with the media or general public shall be through this office.

After the emergency is over, Director of EHRS, or designee, shall restore the facility and safety equipment to pre-emergency status before resuming operations.

II. DESCRIPTION AND LOCATION OF EMERGENCY EQUIPMENT AND SYSTEMS

As stated before, the Hazardous Waste Storage Facilities are kept locked at all times. Only authorized personnel may enter. There is someone in the office weekdays from 8:00 a.m. to 5:00 p.m. A list of typical emergency equipment follows for each area:

- Safety goggles – Used to protect eyes from corrosive materials during hazardous material spill cleanup when there is a potential for a splash to the eyes.
- Spill pillows (250 ml) – Non-specific small spill sorbent pillows used to clean up very small (less than 1L) liquid hazardous material spills.
- Tyvek suits – Used to protect spill cleanup personnel from incidental contact with hazardous materials.
- 5 gallon disposal drums – Utilized as disposal containers for small spills of liquids or solids.
- Acid neutralizer – Used to neutralize small (less than 4L) acid spills.
- Mercury spill cleanup kit – Contains hand-held mercury pump, Mercury Amalgum powder and pads, vinyl gloves and disposal baggies. Used to clean up small (thermometer-sized) mercury spills.
- Neoprene Gloves – Used to protect hands against neoprene compatible chemicals – refer to appropriate glove chart.
- Viton gloves – Used to protect hands against Viton compatible chemicals – refer to appropriate glove chart.
- Latex gloves – Used to protect hands against Latex compatible chemicals and biologicals.
- Vinyl gloves – Used to protect hands against Vinyl compatible chemicals and biologicals – refer to appropriate glove chart.
- Nitrile gloves – Used to protect hands against Nitrile compatible chemicals and biological – refer to appropriate glove chart.
- Spill socks – 2' and 4' universal spill socks used to contain chemical/water/oil spills.
- Oil specific spill pads – 2'x2' spill pads used to contain and clean up oil spills only.
- Drum pumps – Utilized to hand-pump and transfer leaking chemical drums/oil to intact drums.
- Vermiculite/Kitty Litter – Used to contain and absorb hydrocarbon based spills.
- Oil spill booms – Stretched, thrown or tossed across river or creek to contain hydrocarbon based spills in the event of a release of hydrocarbons to creek or river.

Spill supplies will be assessed for type and quantity by the EHRS Director or designee after each use as part of the incident follow-up procedure. On a

regular basis spill supplies are monitored by the individual performing the required inspection of the hazardous waste storage areas.

Missing, outdated or damaged supplies shall be replaced.

The EHRS Director or designee will monitor the number and types of supplies maintained in the spill supply inventory are consistent with the needs of the area as provided.

Continuing need for replacement of supplies/equipment beyond what is expected for chemical spill response activities and requests for the provision of additional spill cart supplies/equipment will be brought to the attention of the Director of EHRS.

In addition, a supply of vermiculite, spill pillows, and the acid neutralizer stored inside the storage facilities. There is an emergency eyewash inside and a shower station within the Bowman-Oddy and HEB Storage facilities. The storage facilities have personal protective clothing stored in the facilities. This emergency response equipment allows for response to routine spills or leaks that might occur within 90-day storage facilities. The space has been designed such that any spills occurring in them will be contained with the individual room of the facility, via the containment berm for larger spills. The 40-hour HAZWOPER emergency responders train annually on spill response and are capable of responding to all but the largest spills (exceeding 75 gallons). Additional response information is contained in the University Spill Prevention Control and Countermeasures (SPCC) Procedure.

The Hazardous Waste Storage Shed and Bowman-Oddy Storage facility have fire suppression systems. Pull stations are located inside or near the facilities. Campus Police should be called whenever an alarm is activated even though the alarm is monitored via UT HSC Security.

There are telephones available inside and outside (Bowman-Oddy Storage Facility and HEB 021) and nearby the facilities Hazardous Waste Storage Shed.

There is Class A:B:C, dry chemical fire extinguishers located inside each hazardous waste storage facility.

III. ARRANGEMENTS WITH LOCAL AUTHORITIES

This plan shall be reviewed at least annually by the EHRS Department, Campus Police and Toledo Fire. The EHRS Department shall meet with the appropriate representatives of those mentioned above as needed to familiarize themselves with this plan, associated hazards of the materials and wastes handled, places where facility personnel would normally be working, types of hazardous materials located in the building, and access to the facility.

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 Director of EHRS, or designee.

In the event of a major spill, UT will activate the UT Emergency Operations Plan and will establish a command center and function under the ICS/NIMS model to manage the incident.

Local 24 Hour Emergency Response Companies

Midwest Environ. Control	419-382-9200 (1 hr. or less response time)
Total Environ. Services	419-244-6555 (1hr. or less response time)

VI. SPILL PREVENTION, CONTROL AND COUNTER-MEASURES PLAN

(Summary) Consult actual SPCC Plan available at www.utoledo.edu/depts/safety .

The following plan is only a guideline for spill control, evacuation, notification of proper authorities and general emergency procedures in the event of a chemical incident at the Storage Facilities maintained by the University of Toledo. Because all emergency situations are different it is important that common sense be used to first protect human life and health. Safety Data Sheets are accessible through Chemwatch database via safety.utoledo.edu.

(1) SPILL CONTROL

- a. **Non-Ignitable, Low Toxicity Liquids or Solids** not generally dangerous, 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. EHRS shall be called to initiate spill response/clean-up procedures. Chemical resistant, impermeable clothing and multiple contaminant cartridge respirators shall be worn consistent with the associated hazard. If response necessitates Self-Contained Breathing Apparatus (SCBA) outside assistance will be necessary. It is the Director of EHRS, or designee's responsibility to determine the level of safety equipment required. A minimum of two trained personnel should always respond to any significant chemical spill. Further back-up personnel should then be called as required. Inert absorbents or neutralizing solids can be used to prevent spreading of liquids. The absorbed liquids can then be carefully swept up and placed in plastic pails with covers.
- b. **Ignitable Liquids or Solids, Highly Toxic Materials, Materials Generating Dangerous Gases and/or Reactive Materials** should 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/extended area evacuation should be initiated. Campus police should then contact the EHRS representative on-call. If the spill or hazard is sufficiently small, then trained campus personnel can initiate the spill clean-up. This decision is to be made by the Director of EHRS or designee. If the hazard is determined to be too great for campus personnel to safely handle the clean-up procedures themselves, then outside agencies/contractors should be called depending on the type of emergency.

The 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 an outside contractor as deemed appropriate by

the Director of EHRS or designee. The University of Toledo does not have enough emergency equipment to safely respond to a clean-up in an immediately dangerous to life and health situation. Small spills of these lower hazard materials can be handled by at least two campus response personnel. Proper safety and clean-up equipment should be used as required by the type of hazard involved.

(2) CHEMICAL SPILL COUNTERMEASURES:

A. Responding to Spills:

1. Assess the situation from a safe distance.
2. Determine what chemicals are involved.
3. Determine what the hazards are of the chemicals.
4. Where it might spread to, or who needs to be evacuated.
5. How many people are injured?
6. Stabilize the situation if possible:
 - shut off any sources of ignition.
 - upright containers if possible
7. Enter spill area to further assess the situation and rescue any victims using the proper level of personnel protection as required by the hazard involved.
8. Clean-up the accident scene.
9. If any residue needs to be processed or treated, do it away from the spill area.
10. Dispose of residues as hazardous waste.
11. Perform follow-up analysis of the area.
12. Prepare Hazardous Materials Incident Report, including an evaluation of response.

(3) EVACUATION PLAN

Personnel in the immediate vicinity should evacuate the premises closing the doors behind them. If there is a substantial chemical release into the air, consideration should be given to evacuate the rest of the building. Upon hearing instructions to evacuate, everyone is to leave the building via the nearest exit (in accordance with EHRS Procedure # EM-08-005 Code "Green" Evacuation Plan).

(4) ALARM SYSTEMS

The fire alarms in the Hazardous Waste Storage Facilities alarm directly to Campus Police. However, Campus Police should always be contacted by the person tripping the alarm for further assistance. The alarms in the Storage Facilities are activated by smoke or a temperature of 140 degrees F.

(5) EMERGENCY PHONE NUMBERS

- | | |
|------------------------------------|---------------------------|
| 1. Campus Police/HSC Security | 419-530-2600/419-383-2600 |
| 2. EHRS Department | 419-530-3600 |
| 3. Fire Department (Toledo) | 911 or 419-244-3473 |
| 4. Police Department (Toledo) | 911 or 419-243-4141 |
| 5. National Response Center (USCG) | 800-424-8802 |
| 6. Chem-trec | 800-262-8200 |

(6) ADVISEMENT

One individual (incident commander, Director of EHRS, etc.) shall always be present to advise assisting agencies/personnel of the character, amounts, source and extent of hazardous materials to local authorities and the National Response Center in the event of life threatening situations at any university facility.

(7) SPILL RESPONSE PERSONNEL

Campus Police shall notify the appropriate in-house Response Personnel. The Director of EHRS, or designee shall notify all outside agencies or contractors as needed.

(8) EMERGENCY COORDINATOR

In the event of an emergency, the Director of EHRS, or designee must immediately evacuate the hazardous area and notify appropriate local or state agencies for designated response assistance.

Whenever there is a release, fire or explosion of hazardous waste/materials, the Director of EHRS, or designee 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 Director of EHRS, or designee 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, irritating 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 great induced explosions.

If the Emergency Coordinator determines that the release, fire or explosion could threaten human health or the environment outside the facility, they must report these findings as follows:

1. If the assessment indicates that evacuation of local areas be advisable, the Coordinator is to immediately notify appropriate officials as described decide whether local areas should be evacuated.
2. The Coordinator must immediately notify that National Response Center and his report must include:
 - a. name and telephone number of reporter
 - b. name and address of the facility
 - c. time and type of incident (e.g. release, fire)
 - d. name and quantity of material(s) involved to the extent known
 - e. the extent of any injuries
 - f. the possible hazards to human health or the environment/outside the facility

During a Hazardous Materials Incident the Director of EHRS, or designee must take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur or spread to other hazardous wastes/materials at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released materials/waste, and removing or isolating containers.

Immediately after a Hazardous Material Incident, the Director of EHRS, or designee must provide for treating, storing or disposing of recovered waste, contaminated soil or surface water or any other material that results from a release, fire or explosion at the facility.

The Director of EHRS, or designee must ensure that, in the affected area(s) of the facility that no waste/materials that 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.

The Director of EHRS, or designee and other response personnel shall evaluate the efficiency and the preparedness of this plan after each incident, perform appropriate follow-up required and as needed.

Additional Reporting Requirements

Within 30 minutes of a spill or release, you must notify:

1. Jurisdictional Fire Department (9-1-1 if emergency)
2. Ohio EPA-ER (800) 282-9378
3. Lucas County LEPC
 - o (419)213-6502

Within 30 days, you must submit a written follow-up report to:

1. Ohio EPA, DERR-ER
Lazarus Government Center
122 S. Front St.
P.O. Box 1049
Columbus, Ohio 43216-1049
Attn: ER Records Management
2. Lucas County LEPC
2144 Monroe St.
Toledo, Ohio 43624
Attn: Michael Frey, Emergency Coordinator