SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC)

UT Procedure - HM-08-036

UNIVERSITY OF TOLEDO
MAIN AND HEALTH SCIENCE CAMPUS

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University Of Toledo
Spill Prevention Control and Countermeasures Plan
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Certification

I certify, under the penalty of law, that I have personally examined and am familiar with the information submitted in this document. Based on my inquiry of those individuals responsible for obtaining this information, I believe that the information is true, accurate, and complete.

Professional Engineer — Date

UT EHRS Approval

Heather M. Lorenz, MSOH, CIH, CSP — Date
Director, University of Toledo Environmental Health and Radiation Safety

Glossary

DISCHARGE - A quantity that can cause a sheen or discoloration on the surface of the water or cause a sludge emulsion to be deposited beneath the surface of the water [40 CFR 110.3]. Discharges include spilling, leaking, emptying or dripping [40 CFR 112.2(b)].

MANAGER OF SAFETY AND HEALTH PROGRAMS - UT Environmental Health and Radiation Safety (EHRS) employee responsible for emergency spill response programs.

INCIDENT COMMANDER - UT EHRS employee that responds to the scene of a spill first.

OIL - Oil of any kind, including but not limited to petroleum, fuel oil, sludge, etc. [40 CFR 112.2(a)].

PCB CONTAMINATED - Oil with a PCB content between 50 and 500 parts per million.

Acronyms

AST - Aboveground Storage Tank

CAA - Clean Air Act

CWA - Clean Water Act

CFR - Code of Federal Regulations

EHRS - University of Toledo Environmental Health and Radiation Safety Department

EPA - Environmental Protection Agency

ERT - Emergency Response Team

UTHSC - University of Toledo Health Science Campus

UTMAIN - University of Toledo Main Campus
OSHA - Occupational Safety and Health Administration

PCB - Polychlorinated Biphenyls

SPCC - Spill Prevention Control and Countermeasures Plan

UST - Underground Storage Tank

Spill Prevention Control and Countermeasure Plan (SPCC)

I. INTRODUCTION

The University of Toledo consists of three Campuses (Health Science, Main and Scott Park) and a University Hospital. These facilities require the operation of a significant support structure for the maintenance of the above listed facilities and the storage of hydrocarbon based materials in the forms of unleaded gasoline, diesel fuel, oils, lubricants, solvents, water treatment chemicals and a variety of other chemicals.

Two separate types of sewer systems service UT's campuses consisting of sanitary and storm systems. Sanitary wastes are conveyed to the City of Toledo Wastewater Treatment Plant. Storm water runoff is discharged directly into the Swan Creek, Ottawa River and stormwater retention ponds. The sanitary system was constructed to prevent the transport of potentially contaminated domestic water flows from throughout campuses due to research, food service and maintenance activities. Oil/water separators are located within the system to remove oils and grease from the waste stream. Chemical storage facilities across campus are sloped away from exits and drains are plugged in efforts to prevent entrance of hazardous materials into the sanitary and storm sewer systems on Campus.

This Spill Prevention Control and Countermeasure (SPCC) Plan describes the procedures for the prevention and control of oil and fuel spills into any of the sewer systems. A number of fuel storage vessels and oil-filled transformers are located across campuses. Table I lists the aboveground fuel storage sites and capacities. Table II lists underground fuel storage tanks and capacities. Table III lists the oil-filled transformers.

II. REGULATORY COMPLIANCE

To comply with 40 CFR Part 112 (Though not required), UT has taken numerous steps to eliminate or minimize fuel and oil spills:

A. The Aboveground/Underground Storage Tank Policy #HM-08-004, completed in 6/8/1992, provided a 7-year schedule for tank removal and closure and tank replacement. Tanks were replaced using noncorroding materials and state-of-the-art designs for leak prevention, leak detection, and overfill protection. From 2014 – 2015, each underground storage tank was reevaluated by EHRS and BUSTR for Operational Compliance with applicable regulations. As a result of this inspection process, cathodic protection was added to a 10,000 gallon UST which services the UTHSC Hospital and the McMaster Hall tank was removed.

B. All aboveground tanks are, when practicable, double-wall constructed, or contained in diked areas.

C. Vehicle maintenance operations are performed on the UT Main Campus.

D. Drums of waste oils and hazardous chemicals are labeled and stored in restricted access areas. These areas are designed so that all spills will be contained in these areas, or drain to a holding basin and then be removed by a waste contractor.

E. Many other buildings have small inventories of 5 to 55-gallon drums that contain oil-based products as well as solvents and other chemicals. The Environmental Health and Safety Department provides technical assistance required to see that all drum-storage areas are diked and that drums are stored in safe areas.

F. UT has performed numerous PCB abatement projects across campus including all transformers, capacitors, and hydraulic oil systems and has essentially eliminated all PCB containing oils from the Campus.

G. Loading and unloading, and oil containing equipment areas are provided with proper lighting, warning signs procedures and spill containment equipment to prevent release of contents to Campus sewer systems.

III. RESPONSIBILITY

A. The UT Environmental Health and Radiation Safety Department (EHRS) sets policies and provides management and oversight for the implementation of the SPCC Plan. EHRS is responsible for the design and engineering of spill controls. EHRS is responsible for emergency response, working in coordination with outside contractors, when necessary.

B. EHRS and Facilities Maintenance managers (see Table IV) are responsible for the inspection, monitoring, and maintenance required by the SPCC Plan.

C. EHRS and Facilities Maintenance are responsible for training personnel assigned to operate and maintain the fuel storage and handling facilities covered by the SPCC Plan.

D. EHRS is responsible for the preparation of Spill Occurrence Reports and for reviews of the SPCC Plan. EHRS shall maintain all SPCC records. EHRS coordinates remedial actions.

E. UT project managers and Facilities Maintenance shall inform EHRS of new projects or renovations that deal with the storage of oil or fuel.

F. When UT land or facilities are being used or leased by contractors or other agencies for their own purposes and involve storage or use of oils or fuel. EHRS shall coordinate with the tenant organization to review its SPCC Plan and ensure that the operation is not in conflict with this SPCC Plan. It is the responsibility of tenants to develop their own SPCC Plans.

IV. TRAINING

EHRS will train personnel in the operation and maintenance of equipment to prevent oil spills (including PCB oils) and will inform them of applicable pollution-control regulations. Briefings will be held annually to ensure adequate understanding of this SPCC Plan and to highlight and describe known spill events, malfunctioning components, and recently developed precautionary measures in accordance with 29 CFR 1910.120 and 40 CFR 265.16. Contractors are informed via a contractor checklist supplied by UT project managers.

V. SPILL REPORTING

A. General Information

Any person at EHRS who discovers a spill should immediately notify Campus Police (X2600) on the nearest house telephone. The caller should state his or her name, the type of spill, its size, the location, and any resulting injuries. The caller should stay on the line until released by the dispatcher.

B. Oil or Fuel Spills

1. In the event of an oil spill, the Campus Police Dispatcher shall immediately notify the following:

    a. Director of Environmental Health and Radiation Safety, Office Phone: 419-530-3603 (Page 419-218-3948), Cell Phone 419-206-0896 (during normal business hours).

    b. EHRS Emergency Responder On-Call (if after hours) via the EHRS On-Call list distributed to UT Campus Police on a regular basis.

    c. Safety Specialist, Phone: 419-530-3600 (during normal business hours).

    d. Environmental Specialist, Phone: 419-530-3600 (during normal business hours).

2. During regular working hours, EHRS shall notify the applicable agencies of those listed below. During off-hours, the emergency coordinator will assign this duty to someone under his command.

    a. Toledo Fire Department, 911 (Only if their assistance is needed).

    b. Ohio Environmental Protection Agency (1-800-282-9378) within 30 minutes of discovery.

    c. National Response Center (1-800-424-8802) within one hour of discovery.

    d. Lucas County Emergency Management Agency, 419-936-3550, 419-265-1973, or 419-213-6527, (25 gallons or reportable quantities), within 30 minutes of discovery.

    e. Sanitary sewer only: The City of Toledo, Wastewater Treatment Plant, 419-729-3861.

    f. City of Toledo, Environmental Services Department, (for spills of hazardous materials), 419-936-3015, 419-936-2020 (after hours), within 30 minutes of discovery and Toledo Environmental Services will contact the OEPA. UT should also confirm this notification.

g. US Coast Guard, (for discharges to navigable waters), immediately after life and safety issues are resolved, 800-424-8802 thru National Response Center.

3. UT EHRS shall prepare a UT Hazardous Material Incident Report whenever a spill occurs. A Hazardous Materials Incident Report Form, providing information required by 40 CFR Part 112.4, can be found in Figure 2. If the spill falls within either of the following two categories, a written report must be submitted to the U.S. EPA Regional Director, 230 South Dearborn Street, Chicago, Illinois, 60604 within 60 days of occurrence:

   a. Discharge of more than 1,000 U.S. gallons into navigable waters in a single spill event.

   b. Discharge of harmful quantities of oil, as defined in 40 CFR Part 110, into navigable waters in two reportable spill events within any 12-month period.

4. Within 30-days of a reportable release, or spill, a follow up notice must be sent to the OEPA LEPC, using the must current version of the reporting form on the Lucas County's LEPC's website.

5. Within 14-days of receiving the notice of violation from Toledo Environmental Services Division a written reply must be completed and sent with the requested materials.

C. Reporting of Spills of PCB Material

Less then 5% percent of the transformers at UT are PCB-contaminated. Spills of PCBs have special reporting requirements based upon the weight of the PCBs spilled rather than by the volume of material alone. Notification procedures for spills of PCB materials should be made using the same call list as above.

As required by the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), EHRS shall report any spill or release of 1 pound of PCBs to the U.S. Coast Guard National Response Center 800-424-8802. And, as required by the Toxic Substance Control Act (TSCA), EHRS shall also report spills of 10 pounds or more (approximately 1 gallon), to the U.S. EPA Regional Office 312-886-6096.

D. Reporting Releases to Sanitary and Storm Sewers

If any waste material beyond normal sanitary, or storm wastewater at the University of Toledo is released unintentionally, or intentionally, this occurrence should be reported to the EHRS Department through the campus emergency number X2600. Additional notifications to the City of Toledo Environmental Services Department will be initiated by the responding EHRS staff member using the numbers contained in this document. Notifications will be immediate, once initial offensive spill control efforts have been initiated. All releases will be treated as spills as per policy HM-08-013, contained in this document.

Unusual discharges to either the sanitary, or storm systems will be only performed after consultation with, and approval from the City of Toledo Environmental Services Department.

E. Information to be provided to regulatory agencies includes the following:

1. Type and amount of material lost.
2. Location and time of release.
3. Reporting party (Facility Name and Owner Operator).
4. Actions taken to stop or reduce the release.
5. Assistance required, if any.
6. Expected duration and magnitude of the ongoing release.
7. Weather conditions.
8. Injuries, property damage, or environmental damage, if known.
9. Pathways (air, water, pipeline, etc.) by which public may be affected.
10. Source and cause of the release (If Unknown, Do Not Speculate).
11. Other agencies notified.

VI. LOCATION OF RESPONSE EQUIPMENT

Responders have access to a variety of response materials (pads, booms, oil absorbents, etc.), at various locations throughout UT. Further information can be found in Table VII and Figure 4. These materials may also be obtained at Facilities Support Building (see Figure 1). Access to this location can be obtained by contacting the Environmental Health and Radiation Safety Department. Phone: 419-530-3600.

VII. EMERGENCY RESPONSE SPECIFICS

The Emergency Response Team (ERT) is comprised of personnel called upon to respond to emergencies at UT. Emergency response actions are managed by the Director of EHRS who has the authority to direct activities and allocate resources to minimize injuries, property loss, and environmental damage. The organization of the emergency response team is presented in Figure 3. The figure shows branches that may be called in during emergency situations. The precise makeup of the ERT is dictated by the situation.

A. Incident Commander

During environmental emergencies, a representative of EHRS shall act as the Incident Commander. The Incident Commander must be familiar with the HM, SPCC and Emergency Preparedness Plans, all operations and activities at EHRS, the location and characteristics of hazardous materials, the location of all records within the facility, and the facility layout. The Incident Commander is responsible for coordinating all emergency response measures and has the authority to commit the resources needed to carry them out.

Whenever there is a spill, the Incident Commander or his designee must immediately:

1. Activate internal facility alarms or communication systems to notify facility personnel, particularly building managers, when applicable.

2. Identify the character, exact source, amount, and real extent of any released materials resulting from the spill.

3. Assess direct and indirect hazards to the environment or to human health that may result from the spill. See that responding personnel use appropriate personal protective equipment.

4. Notify and coordinate emergency response and evacuation activities with local and state authorities if the size and nature of the emergency warrants it. If a threatening situation has occurred, notify local authorities that evacuation may be advisable and report the incident to the parties identified in Section V, Spill Reporting.

5. Insure that fires, explosions, and releases are minimized. Response measures include actions such as stopping processes and operations, collecting and containing spilled material, removing and isolating containers.

6. Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment if facility operations cease.

7. Provide storage and disposal of recovered product, any contaminated soil or surface water, or any material that results from a spill.

8. Notify the Upper Administration and Facilities Maintenance as to the extent of spill.

9. Coordinate river cleanup activities if spilled material reaches the storm sewer system.

10. Procure contractors (see Table V) to clean up spills once the hazard level has been controlled.

11. Insure that no incompatibles are stored or disposed of until cleanup procedures are completed and that all emergency equipment listed in the Emergency Preparedness Plan is cleaned and fit for its intended use.

12. As necessary, direct and obtain information from the other UT Departments.

B. Emergency Response Team

The Emergency Response Team is comprised of personnel from the UT offices listed below. These branches are called according to the Emergency Call System (Table VI) to assist the Emergency Coordinator during an emergency situation. The duties of each of the branches are described below.

1. Environmental Health and Radiation Safety (EHRS) Department

    a. Reviews EHRS Plans prior to the beginning of any remedial actions.

    b. Provides the EHRS oversight and overall coordination for the preplanning of any necessary evacuations.

    c. Assists building managers in evacuations.

    d. Responsible for investigating environmental incidents and submitting. Spill Occurrence Reports go to the Ohio EPA and the National Response Center.

    e. Personnel from this Office can also provide toxicity information on the chemicals that may be encountered at spill sites and the safety precautions that must be taken.

    f. They also provide technical assistance in the initial spill response phase.

    g. EHRS coordinates subsequent remedial actions.

2. Campus Police

    Provides site control measures at the scene by keeping access routes open for emergency vehicles and keeping unauthorized personnel away from the scene.

3. Emergency Medical Services

    Personnel may be called upon to treat accident victims. This office shall coordinate their efforts with EHRS for decontamination procedures if appropriate.

5. Facilities Maintenance Department

    Involved whenever an accident disrupts electric power, water, or steam service at the UT. These personnel can disconnect downed power lines or broken pipes from their main systems and provide emergency power during power outages.

6. Local Authorities

    Emergency services will be coordinated with local authorities when the emergency coordinator feels the situation warrants it. These organizations will respond to requests for aid from EHRS. Table V provides a list of these authorities.

VIII. REFERENCES

A. SPCC Regulations 40 CFR Part 112.

B. PCB Regulations 40 CFR Part 761.125.

C. University of Toledo Health Science Campus Safety and Health Policy Manual

D. University of Toledo Health Science Campus Emergency Contingency Plan.

E. Reportable Quantities for Hazardous Substances 40 CFR 302.4.

Figure I: Map of the University of Toledo Health Science Campus

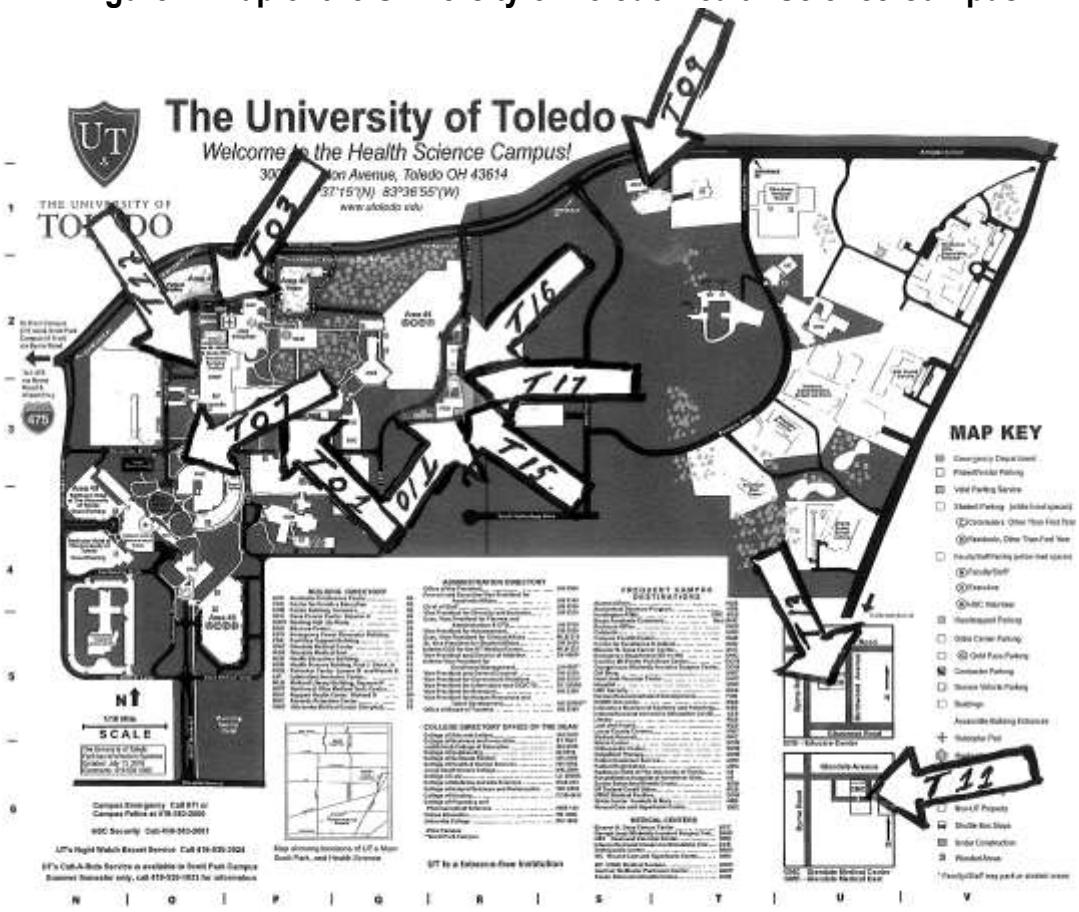


Figure II: Map of the University of Toledo Main Campus

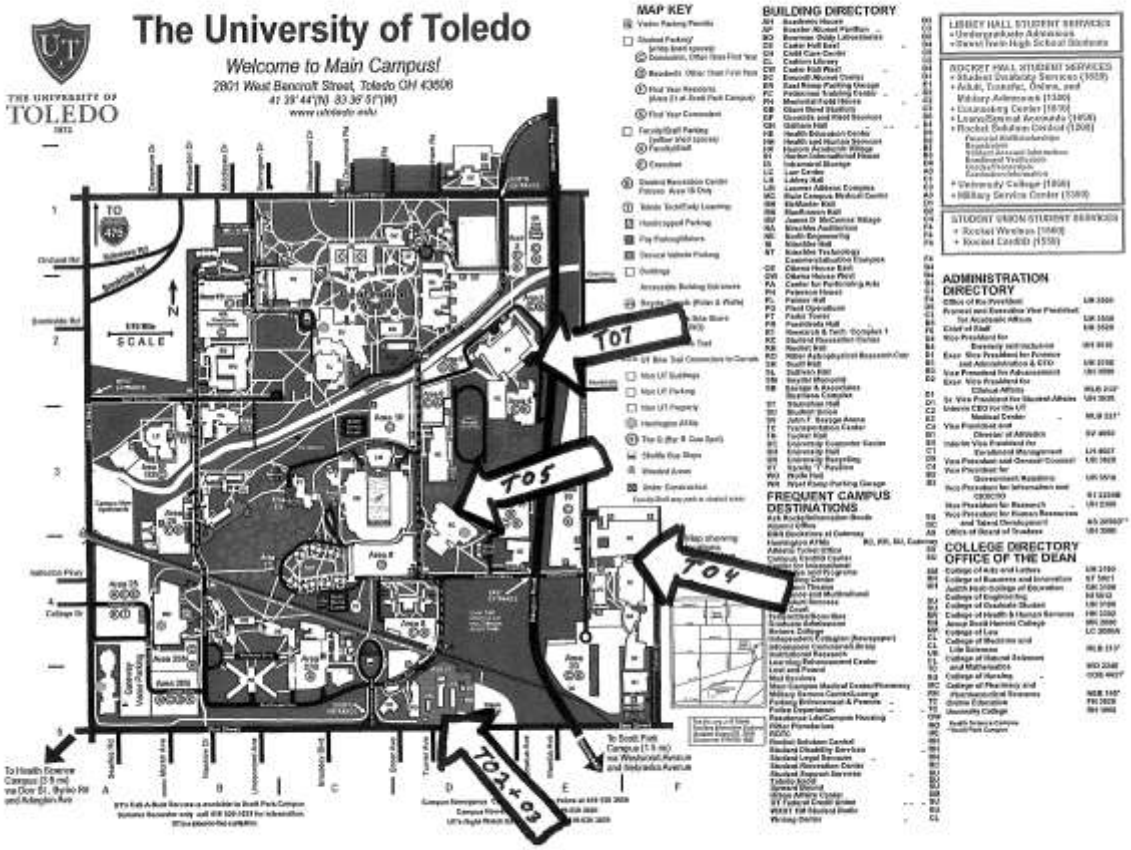


Figure III: Map of the University of Toledo Scott Park Campus

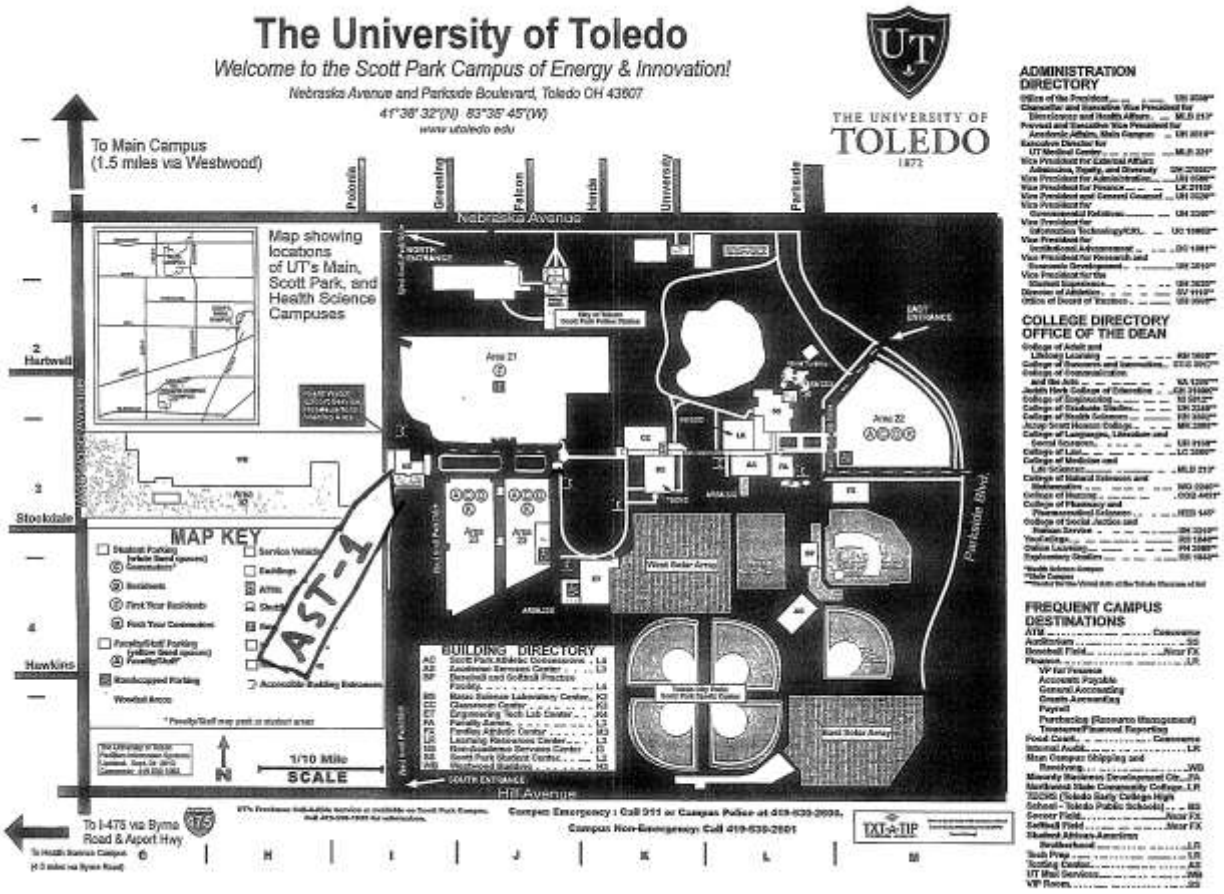


Figure IV: Map of the University of Toledo Stranahan Arboretum

University of Toledo Stranahan Arboretum

Map of Grounds

Legend:
Electrical outlet locations on grounds are marked with arrows,
Water outlet locations are marked in triangles,
The well locations are marked with circles.

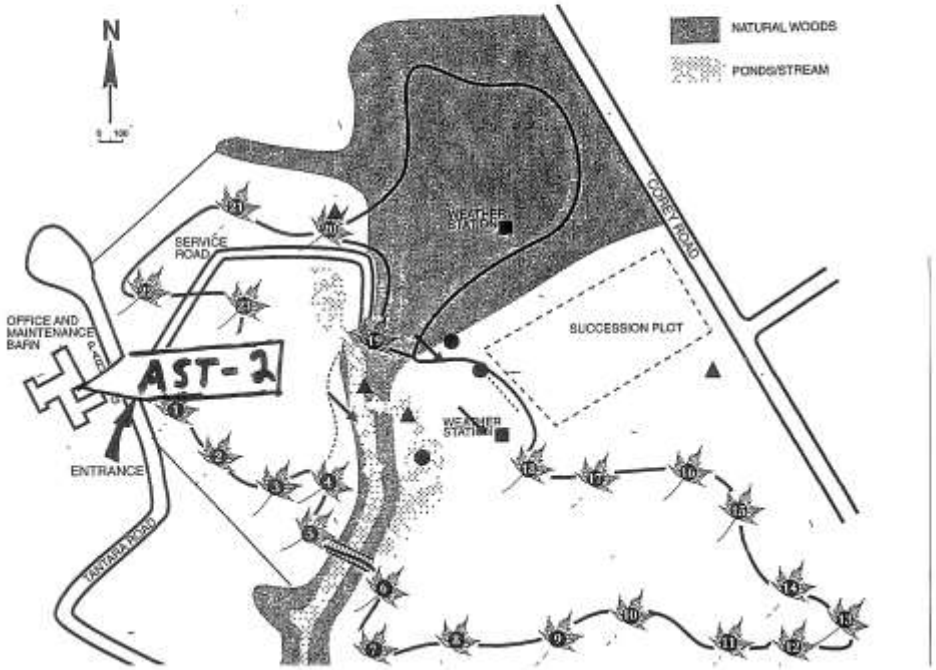


Figure V:

Hazardous Materials Incident Report

Incident No.:

Actual Date: **Actual Time:**
Record Date:

Employee Filing Report:

Location:

Cause:

Material:

Detail:

Corrective Action:

Follow-up:

Notified:

Atchmnt:

Reveiwed:_____

cc: H. Lorenz

Figure VI:

Spill Occurrence Report Notifications

Toledo Fire Department X2600

Date: _____ Time: _____ By: _____

Ohio Environmental Projection Agency 800-282-9378

Date: _____ Time: _____ By: _____

National Response Center 800-424-8802

Date: _____ Time: _____ By: _____

County Emergency Response Program 419-936-3550, 419-265-1973, or 419-213-6527

Date: _____ Time: _____ By: _____

Toledo Environmental Services 419-936-3015 (business hours) 419-936-2020 (24-hour reporting)

Date: _____ Time: _____ By: _____

When Applicable:

Outside Contractor

Date: _____ Time: _____ By: _____

Figure VII: University of Toledo Health Science Campus Emergency Spill Response Chart

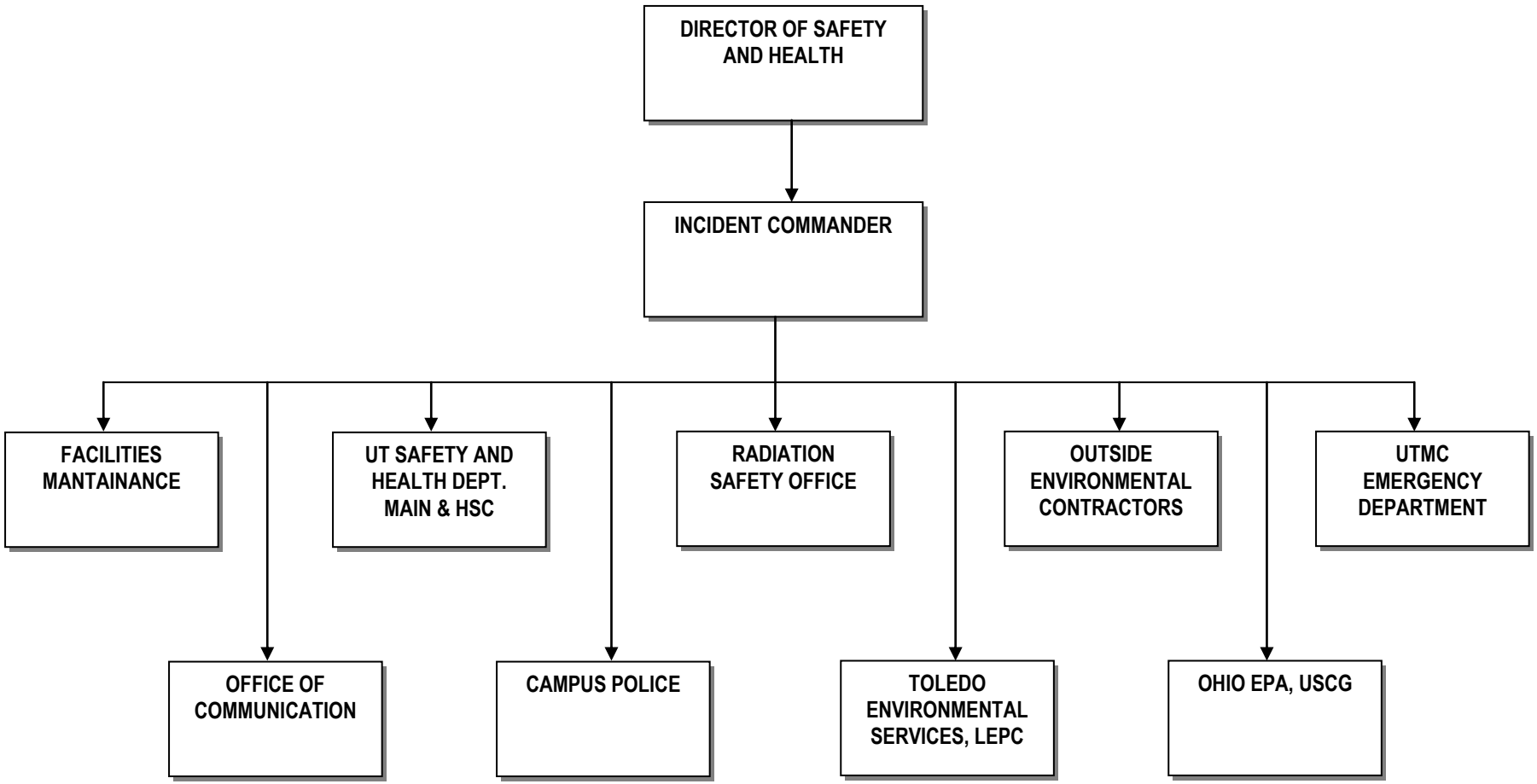


Table I: Locations of Health Science Campus AST's and UST's

UNDERGROUND STORAGE TANKS (UST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
1	HEB	1984	Diesel	8000	Fiberglas	Y	N	N/A	Y	Graff
3	UMC	1979	Diesel	10000	Fiberglas	Y	N	Y	Y	Graff
13*	EDU	1977	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Graff
14*	EDU	1978	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Graff
15	FSB	2011	Diesel	25000	Fiberglas	Y	Y	Y	Y	Graff

*One of the two tanks at Educare (EC) building has been emptied and abandoned in place

ABOVEGROUND STORAGE TANKS (AST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
7	RHC	1985	Diesel	280	Steel	N	Y	N	Y	Graff
9	NWT	1997	Diesel	500	Steel	N	Y	N	Y	Graff
10	FSB	1998	Gas/Diesel	1500/500	Steel/Fiberglas	Y	Y	Y	Y	Collins
11	GMC	1998	Diesel	400	Steel	N	Y	N	Y	Graff
12	DOW	2006	Diesel	5000	Steel/Fiberglas	Y	Y	N	Y	Graff
16	EPG	2016	Diesel	10000	Steel	Y	Y	Y	Y	Graff
17	EPG	2016	Diesel	10000	Steel	Y	Y	Y	Y	Graff

*SO - spill and overfill prevention
RD - release detection
SC - secondary containment
SK - spill kit
N/A - not applicable

Table II: Locations of Main Campus AST's and UST's

UNDERGROUND STORAGE TANKS (UST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
UST-2	Plant Operations	c. 1995	Unleaded Gasoline	10,000	FRP	Y	Y	Y	Y	Fulton
UST-3	Plant Operations	c. 1995	Diesel	10,000	FRP	Y	Y	Y	Y	Fulton
UST-4	North Engineering	c. 1993	#2 Fuel Oil	8000	FRP	Y	Y	Y	N	Green
UST-5	Student Recreation Center	c. 1990	#2 Fuel Oil	3000	FRP	Y	Y	Y	Y	Graff
AST-1	Scott Park Campus	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
AST-2	Stranahan Arboretum	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
UST-7	Savage Arena	2008	#2 Fuel Oil	30,000	Fiberglas	Y	Y	Y	Y	Green

ABOVEGROUND STORAGE TANKS (AST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
AST-1	Scott Park Campus	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
AST-2	Stranahan Arboretum	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins

*SO - spill and overfill prevention
RD - release detection
SC - secondary containment
SK - spill kit
N/A - not applicable

Table III: Health Science Campus Oil Filled Transformers

Building	Location	SN/MFG	Diked/No Dike D/ND	Total Quantity (Gallons)
SubStation	Within Fence	WH-PKP1664-1	ND	5555
SubStation	Within Fence	GE-H-880113	ND	6100
Hospital	Basement	GE-L-248871A	ND	224
Hospital	Basement	GE-L-248871B	ND	224
Hospital	Basement	GE-L-248872A	ND	281
Hospital	Basement	GE-L-248872B	ND	281
Hospital	Basement	GE-L-248873	ND	248
Library	Basement	51953	ND	~206
Library	Basement	51954	ND	~279
Dowling Hall	Basement	PCT-7512-01	ND	276
Dowling Hall	Basement	PCV-3802-01	ND	264
Kobacker	Basement		ND	250
Kobacker	Basement		ND	250
Dana	Outside		ND	250
Dana	Outside		ND	250
Veterans	Outside		ND	250
Glendale	Outside		ND	250
Dietary	Outside		ND	250
Redistribution	Outside		ND	250

Table IV: Main Campus Oil Filled Transformers

Building	Location	SN/MFG	Diked/No Dike D/ND	Total Quantity (Gallons)
Plant Ops	outside	Fayetteville	ND	60
Child Care	outside	Westinghouse	ND	24.4
Transportation Center	outside	Fayetteville	ND	207
Ottawa East	0103	ABB	ND	82.2
Ottawa West	0203	ABB	ND	79.2
Presidents Hall	0001	Square D	ND	Dry
Presidents Hall	outside	Prolec GE	ND	590
Rocket Hall	outside	Square D	ND	455
Rocket Hall	outside	Square D	ND	400
Academic House	outside	Square D	ND	415
International House	outside	Siemens	ND	420
Medical Center	outside	ABB	ND	121
Law Center	0003	GE	ND	180
Law Center	0003	GE	ND	150
Center for Performing Arts	1050	Square D	ND	242
Bowman-Oddy	173	GE	ND	Dry
Bowman-Oddy	173	GE	ND	Dry
Wolfe Hall	0211	Square D	ND	270
Wolfe Hall	0211	Square D	ND	525
West Ramp Parking Garage	0100	Westinghouse	ND	30
Honors Academic Village	outside	Eaton	ND	532
Tucker Hall	outside	Siemens	ND	263
MacKinnon Hall		Cooper	ND	45
Field House	1340	Square D	ND	590
Field House	1340	Square D	ND	556
Carlson Library	0400B	GE	ND	180
Carlson Library	South penthouse	ITE	ND	190
Carlson Library	North penthouse	ITE	ND	250
Student Union	1002	GE	ND	75
Student Union	1002	GE	ND	75
Student Union	2576A	Siemens	ND	351
University Hall	1800	GE	ND	66
University Hall	1800	McGraw-Edison	ND	72
University Hall	1800	McGraw-Edison	ND	84
Gillham Hall	1100A	Vantran Electric	ND	82
Gillham Hall	1100A	Vantran Electric	ND	82

Stranahan Hall	0141	GE	ND	82
Stranahan Hall	0144	GE	ND	82
Ritter	0170	GE	ND	67
McMaster Hall	105	RTE Corp.	ND	66
McMaster Hall	105	RTE Corp.	ND	57
Health & Human Services	1248	Square D	ND	Dry
Snyder Memorial	1280A	Cooper	ND	52
East Parking Ramp	outside	Cooper	ND	253
Driscoll Alumni Center	outside	Square D	ND	305
Savage Arena		Cutler-Hammer	ND	Dry
Health Education	1480	Westinghouse	ND	430
Larimer	outside	Siemens	ND	263
Parks Tower	0144	GE	ND	85
Glass Bowl	outside-west	Square D	ND	440
Glass Bowl	scoreboard	GE	ND	3
Glass Bowl	Lights	GE	ND	15
Glass Bowl	outside SW corner	GE	ND	165
McComas Village	outside 2950	Howard Industries	ND	172
McComas Village	outside 3010	Howard Industries	ND	172
McComas Village	outside 3100	Howard Industries	ND	172
McComas Village	outside 3130	Howard Industries	ND	172
Carter Hall East	outside	Square D	ND	272
Carter Hall East	0180	Cooper	ND	59
Student Rec Center	outside	Siemens	ND	418
University Computer Center	outside	Cutler-Hammer	ND	393
University Computer Center	outside	McGraw-Edison	ND	310
North Engineering	outside	GE	ND	220
North Engineering	0210	Square D	ND	260
North Engineering	0210	Square D	ND	260
North Engineering	caged area	Square D	ND	270
North Engineering	roof	Square D	ND	270
Nitschke Hall	roof	Square D	ND	310
Nitschke Hall	roof	Square D	ND	310
Nitschke Technology (R2)	outside	Cooper	ND	498
R1	outside	RTE Corp.	ND	357
Palmer Hall	4000A	Square D	ND	260
Sub-station	outside	ABB	ND	1515
Sub-station	outside	ABB	ND	1515

Table V: Scott Park Campus Oil Filled Transformers

Building	Location	SN/MFG	Diked/No Dike D/ND	Total Quantity (Gallons)
Non Academic Services	1010B	Federal Pacific	ND	Dry
Engineering Technology	1101	Federal Pacific	ND	Dry
Engineering Technology	outside	Cooper	ND	261
Student Center		Square D	ND	345
Learning Resources Center	1070	Federal Pacific	ND	Dry
Basic Science	1040	Federal Pacific	ND	Dry
Findlay Athletic Center	outside	Cooper	ND	136
Findlay Athletic Center	outside	ABB	ND	180

Table VI: Main Campus Generators

Building	Location	Serial Number	Diked/No Dike D/ND	Total Quantity (Gallons)
Plant Operations	Outside	G950582560	ND	160
Center for Visual Arts	Inside - Basement	B920450605	ND	150
Child Care Center	Outside	265191	ND	80
Transportation Center	Outside	CAT00C44CD4-B01454	ND	78
Ottawa East	Inside – 1st Fl	E040642219	ND	660
Crossings	Inside – Basement	E10244411	ND	900
Rocket Hall	Outside	61505	ND	121
Honors Academic	Outside	C920453605	ND	490
International House	Outside	L940563988	ND	418
Student Medical Center	Outside	288067	ND	48
Center for Performing Arts	Outside	259852	ND	44
Bowman Oddy	Outside	379334	ND	960
Scott/Tucker	Outside	F940547196	ND	255
MacKinnon	Outside	265239	ND	293
Fieldhouse	Inside – 1st Fl	C080168334	ND	60
Carlson Library	Outside	G5A02695	ND	160
Student Union	Outside	F010252044	ND	48
University Hall	Outside	L910439545	ND	438
Gillham Hall	Inside – 1st Fl	D060911242	ND	80
Savage and Associates	Inside – 1st Fl	F080190174	ND	48
Stranahan Hall	Inside - Basement	M09B275603	ND	210
McMaster Hall	Inside - Basement	1850777184	ND	100
Driscoll Building	Outside	CAT00044H04B01452	ND	31
Health and Human Services	Inside – 1st Fl	D030486922	ND	156
Snyder Memorial	Outside	2565050	ND	36
Savage Hall	Outside	G080194227	ND	189
Parks Tower	Outside	8ER03129	ND	399
Glass Bowl	Inside – 1st Fl	255984	ND	140
Carter Hall	Outside	346674-1-1-0512	ND	650
Computer Center	Outside	CAT00000P9EP02253	ND	1897
Nitschke Hall	Outside	2258177	ND	275
Research and Technology 1	Inside – 1st Fl	R080147279	ND	144

Nitschke Technological Commercialization Complex	Outside	2258177	ND	180
Palmer Hall	Outside	2044483	ND	95

Table VII: Location of Health Science Campus Hydraulically Driven Elevator w/ Reservoirs

Building	Location	Elevator Number	Manufacturer	Total Quantity (Gallons)
Health Education	Animal Core	0302	Haughton	75
Collier	Basement	1601	Dover	125
Collier	Basement	1602	Dover	125
Hospital	Central Decontam	0407	Westinghouse	75
Hospital	Central Sterile	0408	Westinghouse	75
Hospital	Cafeteria	0412	Dover	75
Dowling Hall	North Basement	0501	Otis	75
Dowling Hall	North Basement	0502	Otis	75
Dowling Hall	South 1st Floor	0503	Otis	75
Dowling Hall	South 1st Floor	0504	Otis	100
Dowling Hall	North Basement	0505	Otis	75
Dowling Hall	North Basement	0506	Otis	75
Kobacker	Basement	0701	Montgomery	55
Dana	Basement	0601	Montgomery	75
CCE	Basement	1701	Thyssenkrupp	75
Glendale	Basement	1001	Haughton	100
Med. Tech Build.	East Basement	1501	Dover	75
Med. Tech Build.	West Basement	1502	Dover	75
Redistribution	Basement	11997	Capital	100
Ruppert Hlth Center	Basement	0901	Otis	75

Table VIII: Location of Main Campus Hydraulically Driven Elevator w/ Reservoirs

Building	Location	Elevator Number	Manufacturer	Total Quantity (Gallons)
Academic House	0100	32339	Dover	150
Academic House	0100	32338	Dover	150
Carlson Library	0370	21338	Kersher	60
Center for Performing Arts	3001	23341	Kersher	75
Driscoll	Basement	23991	Otis	75
Driscoll	1012A	23992	Otis	60
East Parking Ramp	Basement	23344	Otis	75
Health & Human Services	1710A	3054	Montgomery	75
Health Ed	1240	26348	Toledo	75
International House	0310	34663	Dover	150
International House	0310	34664	Dover	150
Larimer	1000B-1	31060	Dover	75
Law Center	1042	25894	Montgomery	75
Libbey Hall	1013	46203	Schindler	125
Libbey Hall	1013	46204	Schindler	100
Mackinnon Hall	1000F	51206	Schindler	100
McComas Building A	0140	46535	Schindler	100
McComas Building B	0140	45191	Schindler	100
McComas Building C	0140	43165	Schindler	100
McComas Building D	0140	40927	Dover	100
McComas Building E	0140	35714	Dover	100
McComas Building F	0140	33240	Dover	100
McComas Building G	0140	32550	Dover	100
Memorial Field House	1190	51105	TKE	125
North Engineering	Outside – NE Corner	36014	Dover	60
Ottawa House East	1210	47854	Schindler	125
Ottawa House East	1210	47855	Schindler	150
Ottawa House West	1214	47542	Schindler	150
Ottawa House West	1214	47541	Schindler	125

Palmer Hall	1345B	20229	Montgomery	75
Parks Tower	Penthouse	20220	Haughton	75
Presidents Hall	1501 (white)	44474	TKE	125
Presidents Hall	1501 (white)	44475	TKE	125
Presidents Hall	1201 (nash)	44476	TKE	125
Presidents Hall	1201 (nash)	44477	TKE	125
Rec Center	1021	31307	Dover	75
Rec Center	1015	31308	Dover	60
Research Tech Complex (R1)	1000A	32902	TKE	60
Ritter	0200	16481	Montgomery	125
Savage Business	1121	52049	TKE	150
Savage Business	1121	52050	TKE	150
Savage Hall Arena	1616	23332	Plunger Lift	75
Savage Hall Arena	2250	24615	Haughton	60
Savage Hall Arena	1050A	51222	TKE	125
Savage Hall Arena	1180	51223	TKE	125
Scott/Tucker Hall	0108B	34004	Dover	75
Snyder Memorial	3048	15038	Haughton	75
Student Union	1022A	21083	Plunger Lift	75
Student Union	2012	21087	Plunger Lift	75
Student Union	1502	21073	Plunger Lift	75
Student Union Bookstore	1561	32814	Dover	60
Sullivan Hall Academic Ctr.	1160	33730	Montgomery	75
Tucker Hall	0158B	34005	Dover	100
West Parking Ramp	Basement	23955	Otis	75
Wolfe Hall	0201	36081	Dover	150
Wolfe Hall	0257	36080	Dover	125

Table IX: Health Science Campus Cooking Grease/Oil Storage

Building	Department	Container Type	Total Quantity (Gallons)
Hospital Dietary	Food and Nutrition	Deep Fryers & 5 gal containers	25
Hospital Cafeteria	Food and Nutrition	Deep Fryers & 5 gal containers	25
Kobacker Kitchen	Food and Nutrition	Deep Fryers & 5 gal containers	15
Mulford Dietary	Food and Nutrition	Deep Fryers & 5 gal containers	15
Dowling Dock	Food and Nutrition	Used Shortening Receptacle	200

Table X: Main Campus Cooking Grease/Oil Storage

Building	Department	Container Type	Total Quantity (Gallons)
Student Union	Dining Services	Deep Fryers & 5 gal containers	170
Student Union	Dining Services	Used Shortening Receptacle	300
Ottawa East	Dining Services	Deep Fryers & 5 gal containers	55
Ottawa East	Dining Services	Used Shortening Receptacle	300
I House	Dining Services	Deep Fryers & 5 gal containers	25
I house	Dining Services	Used Shortening Receptacle	200
Parks Tower	Dining Services	Deep Fryers & 5 gal containers	30
Parks Tower	Dining Services	Used Shortening Receptacle	200
Savage Arena	Dining Services	Deep Fryers & 5 gal containers	55
Savage Arena	Dining Services	Used Shortening Receptacle	200

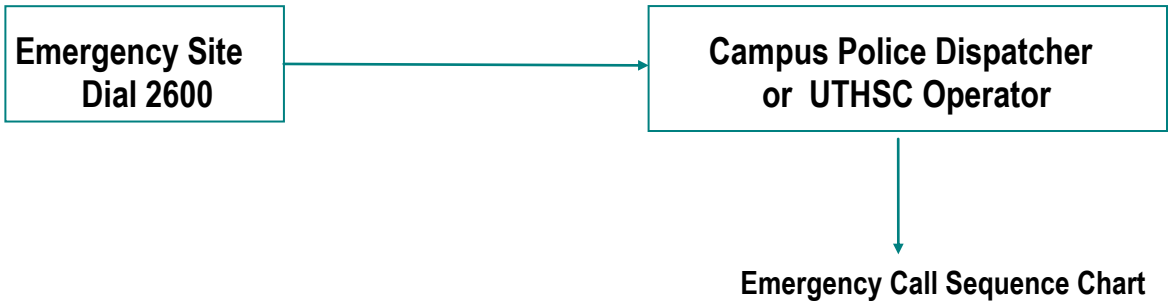
Table XI: Main Campus Motor Vehicle Operations

Building	Department	Container Type	Total Quantity (Gallons)
Grounds and Fleet Building	Grounds and Fleet Services	Used Motor Oil and Hydraulic Fluid	275
Grounds and Fleet Building	Grounds and Fleet Services	5-W 20 Motor Oil	175
Grounds and Fleet Building	Grounds and Fleet Services	10-W 30 Motor Oil	175
Grounds and Fleet Building	Grounds and Fleet Services	15-W 40 Motor Oil	175
Grounds and Fleet Building	Grounds and Fleet Services	80-W 90 Gearlube	40
Grounds and Fleet Building	Grounds and Fleet Services	#2 Grease	40
Grounds and Fleet Building	Grounds and Fleet Services	Allison Transmission Fluid	55
Grounds and Fleet Building	Grounds and Fleet Services	Dexron Transmission Fluid	55
Grounds and Fleet Building	Grounds and Fleet Services	Various oils and greases in smaller (under 5 gal) containers	34

TABLE XII: Emergency Contacts

FIRE	Toledo Fire Department	(419) 245-1140
	545 N. Huron	"2600"
	Toledo, OH 43604	
	City of Toledo Fire Department/LEPC	(419) 936-3550
	Hazardous Material Unit	"2600"
	545 N. Huron Street	
	Toledo, Ohio 43609	
HOSPITAL	UTHSC Emergency Room	(419) 383-3888
	3000 Arlington Ave.	
	Toledo, Ohio 43614	
POLICE	UTHSC Campus Police	(419) 383-2600
	3045 Arlington Ave.	"2600"
	Toledo, Ohio 43614	
	City of Toledo Police	(419) 245-3246
	525 N. Erie Street	
	Toledo, Ohio 43609	
CONTRACTORS	Midwest Environmental Control, Inc.	(419) 382-9200
	4708 Angola Road	(800) 275-6932
	Toledo, Ohio 43615	
	Rader Environmental Services Inc.	(419) 424-1144
	312 East Hardin Street	
	Findlay, Ohio 45840	
OTHERS	Ohio Environmental Protection Agency	(419) 352-8461
	North District Office	
	347 N. Dunbrige Road	(800) 686-6930
	Bowling Green, Ohio 43402	
	Ohio Environmental Protection Agency	(800) 282-9378
	Office of Emergency Response	
	P. O. Box 1049	
	Columbus, Ohio 43266	
	City of Toledo	(419) 936-3015
	Division of Environmental Services	
	348 S. Erie Street	(419) 936-2020
	Toledo, Ohio 43602	
	US Coast Guard	(800) 424-8802, or (202) 267-2675
	Ohio Department of Natural Resources	419-429-8388

Table XIII: UTHSC Emergency Call System



Title	Name	UT Phone	Cell Phone	Beeper
UT EHRS ON-CALL RESPONSE LIST	**24/7/365**	**X2600**	**List Maintained at Campus Police**	**List Maintained at Campus Police**
Director, Safety and Health	Heather Lorenz	530-3600	(419) 206-0896	(419) 218-3948
Environmental Specialist / Chemical Hygiene Officer	Tim Niederkorn	530-3600	(419) 704-1576	(419) 218-2032
Biosafety Officer	Skylar Rohrs	530-3600	(419) 966-2525	(419) 218-2031
Emergency Preparedness Coordinator	Nicole Meagher	530-3600	(419) 340-4738	(419) 218-3501

Table IV: Response Materials And Locations

UST SITES

Building	Site Location
DH	Dowling Hall Generator Room
Hospital	Hospital Generator Room
BHSB/HEB	Health Education Generator Shed
FSB	East Side Behind Building

AST SITES

Building	Site Location
FSB	East side behind building

MOBILE UNITS

Building	Site Location
HEB	Room 021
DH	Basement in Warehouse near Dock #5

WASTE STORAGE SITES

Building	Site Location
FSB	Outside Plastination Lab
HEB	Within Room 021

STANDARD OIL/FUEL EMERGENCY RESPONSE KIT

Item	Size	Quantity
All purpose pillows	12 in. X 12 in.	4
Booms (pigs)	3 in.X 4 ft.	2
Vermiculite/Oil Absorbent	10 pounds	1
Spill stoppers (Mat or Plug)	36 in. X 36 in.	1

Appendix I

UNIVERSITY OF TOLEDO

SUBJECT: ABOVEGROUND AND UNDERGROUND STORAGE TANKS

Procedure No: HM-08-004

PROCEDURE STATEMENT

Existing aboveground and underground storage tanks, as defined below shall be used and maintained in accordance with 40 CFR Part 112, 280-281 & 302.4, 40 CFR Sec. 264.190, OAC Sec. 1301:7-9-09 et seq., OAC Sec. 3737-1-01 et seq. and the recommendations of the National Fire Protection Association.

PURPOSE OF PROCEDURE

To ensure compliance with applicable regulations, to prevent property loss and environmental impairment which may result from leakage, to prudently manage environmental risks, and to set forth accepted procedures.

PROCEDURE

Definition

An underground storage tank (UST) is any tank, including underground piping connected to the tank, that has at least 10% of its volume underground and an aboveground storage tank (AST) stores and dispenses its product above the surface of ground level.

HSC UNDERGROUND STORAGE TANKS (UST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
1	HEB	1984	Diesel	8000	Fiberglas	Y	N	N/A	Y	Graff
3	HOS	1979	Diesel	10000	Fiberglas	Y	N	N/A	Y	Graff
*13	EDU	1977	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Collins
*14	EDU	1978	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Collins
15	FSB	2011	Diesel	25000	Fiberglas	Y	Y	Y	Y	Green

*One of those tanks is empty and closed in the ground.

HSC ABOVEGROUND STORAGE TANKS (AST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
7	RHC	1985	Diesel	279	Steel	N	Y	N	Y	Graff
9	NWT	1997	Diesel	500	Steel	N	Y	N	Y	Collins
10	FSB	1998	Gas/Diesel	1500/500	Steel/Fiberglas	Y	Y	Y	Y	Collins
11	GMC	1998	Diesel	400	Steel	N	Y	N	Y	Graff
12	DOW	2006	Diesel	5000	Steel/Fiberglas	Y	Y	N	Y	Collins
16	EPG	2016	Diesel	10000	Steel	Y	Y	N	Y	Graff
17	EPG	2016	Diesel	10000	Steel	Y	Y	N	Y	Graff

MAIN CAMPUS

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
UST-2	Plant Operations	c. 1995	Unleaded Gasoline	10,000	FRP	Y	Y	Y	Y	Fulton
UST-3	Plant Operations	c. 1995	Diesel	10,000	FRP	Y	Y	Y	Y	Fulton
UST-4	North Engineering	c. 1993	#2 Fuel Oil	8000	FRP	Y	Y	Y	Y	Green
UST-5	Student Recreation Center	c. 1990	#2 Fuel Oil	3000	FRP	Y	Y	Y	Y	Graff
AST-1	Scott Park Campus	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
AST-2	Stranahan Arboretum	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
UST-7	Savage Arena	2008	#2 Fuel Oil	30,000	Fiberglas	Y	Y	Y	Y	Green

*SO - spill and overfill prevention
RD - release detection
SC - secondary containment
SK - spill kit
NA - not applicable
FRP – Fiberglas reinforced plastic
†Site - HEB, Health Education Building; DOW, Dowling Hall; HOS, Hospital; FSB, Facilities Support Building; ATP, Advanced Technology Park; PWH, Powerhouse, MTC, Medical Technology Center; EDU, Educare, EPG, Emergency Power Generator Building

For those tanks associated with properties leased to outside entities, it shall remain their responsibility to ensure compliance with appropriate regulatory requirements.

Requirements

Release Detection - Inventory Control reports shall be compiled (as described below) and submitted to the Environmental Health and Radiation Safety Department.

- Upon Request*:* Tank volume shall be manually measured using a gauge stick (or calibration chart) which converts tank level into gallons prior to filling and after filling is complete.
- For deliveries, tank volume shall be gauged before and after delivery, to adequately guard against overfilling. The input shall be accurately recorded.
- Product dispensing meters shall be calibrated to record to within an accuracy of +6 cubic inches for every 5 gallons of product withdrawn, in accordance with industry standards.
- Wide variations in this accounting procedure will be reported immediately to the Safety & Health Department.
- The measurements of any water level in the bottom of the tank are made to the nearest one-eighth of an inch at a time frame determined by Facilities Maintenance.
- Cumulative data shall be reviewed by the Environmental Health and Radiation Safety Department annually.

- Tank Tightness Testing - Each underground storage tank shall undergo a tank tightness test as determined necessary.
- The aboveground storage tank at the Facilities Support Building shall be inventoried and monitored by the Facilities and Construction Department.
- In January of every year a BUSTR Operational Compliance Form must be completed by Environmental Health and Radiation staff for all USTs. These forms are retained by Environmental Health and Radiation Safety.

Spill and Overfill Prevention

The supervisors with appropriate authority are responsible for ensuring that releases due to spilling or overfilling are prevented, as follows:

- Prior to the transferal of material into a AST or UST by a fuel vendor, the appropriate supervisor shall ensure that the volume available in the tank is greater than the volume of product to be transferred and that the transfer operation is constantly monitored to prevent overfilling and spilling. The Vendor must notify the University of Toledo prior to fuel delivery. UT personnel must stand by during filing.
- Unexplained variances from Inventory Control Reports (i.e. 2 reports showing unexplained variance) and similar unusual operating conditions shall be reported to the State Fire Marshall by the Environmental Health and Radiation Safety Department.
- Spill prevention equipment must prevent the release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catch basin).
- Overfill protection equipment must shut off flow into the tank when the tank is no more than 95% full, or alert the transfer operator when the tank is no more than 90% full by restricting the flow into the tank or triggering a high level alarm.
- Release detection for tanks must be able to detect a leak from any portion of the tank (and connected underground piping that routinely contains product). Selected method must be able to detect 0.2 gallon per hour leak rate, or a release of 150 gallons within one month with a probability of detection of 0.95 and a probability of false alarm of 0.05. Release detection for piping is required only where piping normally contains material. This requirement may be satisfied by automatic line leak detectors which alert the operator to the presence of a leak by restricting flow. (At present Emergency Generator Storage Tanks are not required to have release detection devices but the University of Toledo will, to the greatest extent possible, attempt to achieve the highest degree of protection and safety at all of its fuel storage locations.)
- Cathodic protection shall be in place for all steel piping servicing UST's on the campus of the University of Toledo and be inspected in accordance with State Fire Marshal and Manufacturers recommendations.
- As per the University of Toledo's Spill Prevention Control and Countermeasures Plan (SPCC), a spill kit shall be available at each location where fuel is delivered and dispensed.

Reporting Releases and Spills

University of Toledo must report a release or suspected release to BUSTR and the local fire department within 24 hours of discovery. However, if the spill/overfill is 25 gallons or less, and it does not reach a surface water body, and is cleaned up within 24 hours, you do not need to report a release to the Ohio Bureau of Underground Storage Tanks (State Fire Marshal).

In addition, if the spill is greater than 25 gallons, it must be reported to the OEPA (Toledo Environmental Services 419-936-3015), the Lucas County Emergency Planning Commission (LEPC) 419-936-3550, and possibly the U.S. Coast Guard (National Response Center 1-800-424-8802) if released to navigable waters (this includes sheen on drainage ditches and creeks leading to navigable waters such as Swan Creek, storm and sanitary sewer drains). The initial report must be made in 30 minutes with a full report to each agency within 30 days from the date of the spill.

Follow instructions in the University of Toledo's Spill Prevention Control and Countermeasures Plan (SPCC).

Additional Requirements

All documentation related to compliance with 40 CFR Part 280 shall be maintained by the Environmental Health and Radiation Safety Department to include the following:

- Documentation of UST system repairs;
- Recent compliance with release detection requirements; and
- Results of the site investigations conducted at permanent closure of UST systems.

All renovations, repairs and tank closures must be conducted in accordance with 40 CFR Part 280.

Source: Safety & Health Committee

Effective Date: 6/8/92

Review/Revision Date: 4/10/95
6/4/96
10/14/98
5/11/99
7/8/02
2/9/05
5/4/06
2/5/08
1/14/11
6/15/11
5/17/12
1/9/14
11/17/16
2/24/17

Appendix J

UNIVERSITY OF TOLEDO

SUBJECT: HAZARDOUS MATERIAL SPILL PROCEDURES Procedure No: HM-08-013

PROCEDURE STATEMENT

The procedures described in this policy shall be followed in order to allow for proper clean up and protection of the University of Toledo employees in the event of a hazardous material spill (incident) occurring on any property owned, or leased by the University.

PURPOSE OF PROCEDURE

To identify proper procedures, ensure corrective actions are instituted and to document compliance with OSHA, ODH, NRC, JC and EPA regulations.

PROCEDURE

If at anytime you do not feel comfortable cleaning up any spill involving hazardous materials (or the spill involves large volumes of liquids to the environment) at the University of Toledo, call the UT's emergency number x2600 to report the following information:

1. Type of material spilled.
2. Amount of material spilled.
3. Location of spill.

Four major varieties of spills involving hazardous materials at the University of Toledo can occur under a number of different circumstances; they can be grouped into one of the following categories and found in the listed appendices:

1. Appendix A - Chemotherapeutic (Hazardous Drug) Hazardous Materials
1. Appendix B - Chemical Hazardous Materials
2. Appendix C - Infectious Hazardous Materials
3. Appendix D - Radioactive Hazardous Materials
4. Appendix E – Mercury Spill Procedure

The Environmental Health and Radiation Safety Department will have responsibility for assisting in the event of Chemical, Infectious and Chemotherapeutic Hazardous Material Spills, while the Radiation Office will be responsible for all spills of Radioactive Hazardous Materials.

Note: (For specific information on each spill procedure see the attached copies of written spill procedures)

In the event that a spill/hazardous material incident occurs each staff member, student, or faculty member should be able to refer to this policy, or the spill kit itself for specific instructions on how to deal safely with a spill involving any of these hazardous materials.

Each individual, depending on the severity of the spill/hazardous material incident has the opportunity to either utilize appropriate spill clean up materials (in the form of a kit), or call in assistance from trained personnel in response to a spill at the University.

A "Code Orange" (Policy # EP-08-003) will be called in the event of a large number of individuals are contaminated during a spill that require decontamination prior to treatment in the Emergency Department from on or off of the campus of the University of Toledo.

A Hazardous Material Incident Report (Appendix F) shall be completed following the clean up of the spilled material providing information on the details of the spill, corrective actions taken as well as any follow up that may be required.

A copy of the Hazardous Materials Incident Report is to be sent to the responsible individual for the department in which the spill/incident occurred, along with any pertinent recommendations that need to be instituted.

The Environmental Health and Radiation Safety Department will consider any hazardous materials incidents requiring extensive follow-up open and Environmental Health and Radiation Safety Supervisors will not sign off as complete until follow-up is completed.

The Environmental Health and Radiation Safety Department will perform a quarterly review of hazardous material incidents to analyze emerging spill trends and common occurrences. This information will be made available to the University of Toledo Safety and Health Committees upon request or as warranted.

Attachments

Appendix A - Chemotherapeutic (Hazardous Drug) Hazardous Materials
Appendix B - Chemical Hazardous Materials
Appendix C - Infectious Hazardous Materials
Appendix D - Radioactive Hazardous Materials
Appendix E – Mercury Spill Procedure
Appendix F - Hazardous Material Incident Report

Source: Safety & Health Committee

Effective Date: 8/1/96

Review/Revision Date: 8/1/96
1/27/99
7/17/02
2/23/05
2/12/08
9/22/08
2/3/11
7/1/13
6/24/16

Appendix A Emergency Procedures Involving Chemotherapeutic Hazardous Materials Chemo Spill Procedure

1. Read this instruction card completely before starting clean-up.

2. Inform individuals in area to keep clear of spill area, posting signs if necessary.

3. Open and remove contents of Chemo Spill Kit located in zip-lock bag. Each kit will include, at a minimum:

2	Each	Chemo Gown (blue in color)
1	Pair	Latex Chemo-Safe glove - Medium
1	Pair	Latex Chemo-Safe glove - Large
30	Each	Paper towels
1	Each	Small scoop
1	Each	Large Chemo bag (yellow)
1	Each	Zip-lock Chemo bag
1	Each	Spill clean up procedure

Note: If sharps are involved, bring a chemotherapy sharps container to the area of the spill.

4. Don Chemo-safety gown and gloves. Pull cuffs of second pair of gloves over cuffs of gown so no skin is exposed. (If a splash risk is present wear protective eyewear.)

5. If there is overt contamination of employee, hospital equipment or carpeting, or if you feel uncomfortable cleaning up spill call University of Toledo Police at x2600

6. Contain the spill and absorb liquid with the paper towels.

7. Discard the used paper towels in the small yellow zip-lock bag.

8. If pieces of broken glass or sharps are present use disposable scoop to remove.

9. Discard broken glass and sharps to chemotherapy sharps container and wipe down the area with isopropyl alcohol or bleach (not contained in kit) soaked paper towels. Please contact the UTMC Pharmacy at (419) 383-3898 for drug destruction/cleanup suggestions.

10. Once spill is cleaned up, remove outer chemosafety gloves, chemo-safety gown and place in small yellow zip-lock bag.

11. Seal yellow zip-lock bag closed.

12. Place small yellow zip-lock bag in large yellow waste bag.

13. Remove inner chemo-safety gloves to large yellow disposal bag.

14. Close the large chemotherapy waste bag, expelling the air in the bag away from you. Tie a knot, or tape the waste bag.

15. Discard the large yellow bag to a chemotherapy waste container located in the department, or contact Environmental Services (x5353).

16. Once spill clean up is complete contact Environmental Services to have the area thoroughly cleaned with hospital approved disinfectant.

17. Order a new chemotherapy spill kit from Central Service at X3884 (HSC).

18. Report all spills to University of Toledo Police within 24 hours at x2600. Report should include:

- Exact location of the spill, and names of all employees involved.
- Date, time, and a short, detailed summary of the spill.
- Procedure used to clean-up spill.
- This information will be logged as a hazardous material incident.

NOTE: For Chemo spills on carpet, call x2600 immediately to get assistance from the Environmental Health and Radiation Safety Department.

Missing, outdated or damaged supplies should be appropriately replaced by the department that utilizes the spill kit, and the Environmental Health and Radiation Safety Department will monitor the type and number of supplies maintained in areas that utilize these spill kits to ensure that they are consistent with the needs of the area as provided. Continuing need for replacement of supplies/equipment beyond what is expected or requests for additional supplies will be brought to the attention of the Environmental Health and Radiation Safety Director.

Appendix B Emergency Procedures Involving Chemical Hazardous Materials Chemical Spill Procedure

****Note:** If at any time you feel you are not qualified, or are unsure of yourself, call and report any chemical spills to the University of Toledo Police at x2600 so that trained spill personnel may be involved in the clean-up procedure.

REMEMBER

1. Protect yourself first, personal protective equipment.
2. Protect the people around you, evacuate?
3. Protect against contamination of equipment.

PROCEDURE

1. ***Small spills*** less then one gallon of relatively non-hazardous materials (i.e., isopropyl alcohol)

   a. Assess the situation and determine types of materials involved.
   b. Put on appropriate personal protective equipment.
   c. Apply suitable absorbent materials (i.e., paper towels)
   d. Dispose of all waste materials to suitable waste stream. Contact Safety & Health for advice at (419) 530-3600.
   e. Call Environmental Services to mop area with plain water.
   f. Report all spills to University of Toledo Police within 24 hours at x2600. The report should include:

   - Exact location of the spill, and names of all employees involved.
   - Date, time, and a short, detailed summary of the spill.
   - Procedure used to clean-up spill.
   - This information will be logged as a hazardous material incident.

2. ***Large spills*** or for more hazardous materials (i.e., mercury or formaldehyde)

   a. Call University of Toledo Police at extension x2600. University of Toledo Police will notify the Environmental Health and Radiation Safety Department.
      (1) Tell them what has been spilled.
      (2) Size of spill.
      (3) Location of spill.
   b. Remove nonessential personnel, evacuate if necessary.
   c. Restrict area to traffic, close doors.
   d. Wait for trained clean-up personnel from Environmental Health and Radiation Safety to arrive.
   e. Assist in any way possible with spill clean-up.
   f. A decision will be made between University of Toledo Police and Environmental Health and Radiation Safety to call an outside contractor if the spill represents a serious threat to the health and safety of patients, visitors, faculty, staff, students or volunteers.
   g. For large volume spills, or floods inside university buildings that are contaminated with chemicals the MC emergency response trailer can be utilized along with guidedance from the Environmental Health and Radiaiton Safety staff members.
   h. Discharge of large volumes of liquids to the sanitary, or storm water systems requires approval of Environmental Health and Radiation Safety staff and the City of Toledo.

LOCATIONS OF CHEMICAL SPILL KITS (MC)

PLANT OPERATIONS	HazMat Building	- Eastern Compartment
BOWMAN-ODDY BUILDING	Ground Floor	- Chemistry Stockroom

LOCATIONS OF CHEMICAL SPILL KITS (HSC)

DOWLING HALL	Ground Floor	- Interior Dowling Hall Emergency Generator - Exterior Dowling Hall Emergency Generator - Central Distribution Area
HEALTH EDUCATION BUILDING	Ground Floor	- Room 021
FACILITIES SUPPORT BUILDING	Carpenter/Woodworking Shop	
HOSPITAL	Ground Floor	- Pathology Lab

Note: Many small chemical spill kits/supplies are located in laboratories and generators are not captured in this inventory.

All listed spill supplies are inventoried by the Environmental Health and Radiation Safety Director or designee after each use as part of the incident follow-up procedure, or at least annually. Missing, outdated or damaged supplies are appropriately replaced, and the Environmental Health and Radiation Safety Department will monitor the type and number of supplies maintained on the spill carts to ensure that they are consistent with the needs of the area as provided. Continuing need for replacement of supplies/equipment beyond what is expected or requests for additional supplies will be brought to the attention of the Environmental Health and Radiation Safety Director.

Appendix C Emergency Procedures Involving Infectious Hazardous Material Infectious Spill Procedure

For emergency assistance with large spills (greater than one gallon):

Contact the Environmental Health and Radiation Safety Department through University of Toledo Police at x2600.

During a spill or release of potentially infectious materials (beyond internal capabilities to safely manage) Environmental Health and Radiation Safety may direct University of Toledo Police to secure assistance from external agencies.

These agencies include (but may not be limited to):

Health Department (419) 213-4100
Ohio Department of Health (888) 411-4142
EPA 419-352-8461 or (800) 282-9378 for major spills.

All areas of the Institution treating, packaging, or otherwise handling infectious waste will implement procedures listed below subsequent to a spill of infectious waste (for definition of infectious waste, see Disposal of Infectious Waste Policy, HM-08-019).

1. A spill kit is to be maintained in a ready-access area in all central areas of waste generation, storage, packaging and in autoclave areas.

2. The spill kit will include (minimum):

   a. One set of liquid impermeable, disposable overalls or impervious gown, boots
   b. Gloves: exam and rubber
   c. Shoe covers, cap and mask
   d. Protective eyewear: goggles, faceshields, etc.
   e. Red disposable infectious/biohazardous waste bags
   f. Disinfect solutions (hospital approved/EPA approved)
   g. Absorbent material
   h. Scoop and brush
   i. 1-roll of clear and boundary tape
   j. Paper towels and rags

For Management of Infectious Material Spills at University of Toledo:

1. Limit access to the spill area to only authorized personnel.
2. Apply protective barriers as appropriate (for example, if splashing is anticipated, protective eyewear should be worn with an impervious gown or apron).
3. If the spill does not contain any sharps (i.e., broken glass), the visible material should first be removed with disposable towels or other appropriate means that ensure against direct contact with potentially infectious fluids
4. If a liquid spill includes sharps (i.e., broken glass) absorbent powder should be used to solidify the liquid, then visible material should be removed using a no-touch technique (i.e., a dustpan and sweeping tool).
5. The area of the spill should then be decontaminated with the University-approved disinfectant from the kit.
6. Any absorbent materials used in disinfecting the area, as well as other supplies and refuse from the spill, shall be placed in a red bag and disposed of as infectious waste.\
7. Soiled non-disposable items will be cleaned and disinfected according to accepted practices, for reuse.
8. Hands will be washed after spill clean up.
9. Notify the Environmental Health and Radiation Safety Department (419-530-3600) to replenish the spill kits.

10. Report all spills to University of Toledo Police within 24 hours at x2600. Report should include:

- Exact location of the spill, and names of all employees involved.
- Date, time, and a short, detailed summary of the spill.
- Procedure used to clean-up spill.
- This information will be logged as a hazardous material incident.

For Management of Major Spills (Greater Than One Gallon):

1. Limit access to the spill area to only authorized personnel.
2. Contact the Environmental Health and Radiation Safety Department through University of Toledo Police at x2600.
3. Complete steps 2-10 under Management of Minor Spills.

LOCATIONS OF INFECTIOUS SPILL KITS

HOSPITAL	6th Floor	Room 6127 (dirty utility room) Physical Therapy (hydrotherapy)
	5th Floor	Room 5169 (dirty utility room) 5127 (dirty utility room)
	4th Floor	Room 4169 (dirty utility room) 4127 (dirty utility room)
	3rd Floor	Room 3119 (dirty utility room) Room 3203 (dirty utility room) MICU Blood Gas Lab
	2nd Floor	Operating Room 2239 (dirty utility room) SICU (Blood Gas Lab) Recovery Room 2190 (custodial) Clinic 2120 (nurses station) Clinic 2152 Frozen Section Lab
	1st Floor	Emergency Department 1264 (dirty utility room) Radiology 1236 (custodial) Cardiovascular Labs (dirty utility closet) MRI (supply closet across from computer room) Hospital Outpatient Lab
	Ground Floor	Pathology Lab (0123) Pathology Immunohistochemistry Pathology (inside caged area under hood) Pathology 0107 Mycobacteriology Pathology Sendouts Central Service (Decontamination) Hemodyalisis DH loading dock (IW storage area) Autopsy
KOBACKER / CAPH	Nurses Station (exam room in cabinet)	

RUPPERT HEALTH CENTER	1st floor OB/GYN (Lab Room 1401) Pediatric Clinic (break room 1313) General Medicine Clinic (Room 1713) Outpatient Lab (1220A
GLENDALE MEDICAL CENTER	South Toledo Internists - 2 kits—East and West Clinics under sink
HEATHERDOWNS SCHOOL	Prescribed Pediatric Care (under sink)
HEALTH EDUCATION BUILDING	HEB 032 Path Lab (by chemical spill kit) HEB 048 Located under table by autoclave HEB 223 Located in cabinet HEB 238 Located under sink
BLOCK HEALTH SCIENCE BUILDING	HSB 029 Under lab table HSB 331 Located on shelf by autoclave
DOWLING HALL	Room 1759 Ortho Clinic (under sink) Room 0020M Blood Draw (1001A) Ortho Blood Draw

Note: In addition, all Biosafety Level Two (or higher) labs on campus must have a biosafety spill kit. These spill kits are not reflected in this inventory.

Appendix D Emergency Procedures Involving Radioactive Hazardous Material Radioactive Spill (decontamination) Procedure

HOSPITAL PATIENT AREAS

In case of a spill of radioactive materials in the patient areas of the hospital contain the spill with towels or blankets, secure the area, hold any contaminated persons until monitored by Radiation Safety, contact the Radiation Safety Office immediately through University of Toledo Police at x2600.

RESEARCH LABORATORY AREAS

In the research laboratory areas decontamination shall be accomplished by the Approved User and/or his laboratory personnel under the direction of the Radiation Safety Office. Decontamination procedures depend upon source type, strength, chemical and physical properties, and total area contaminated. For emergency assistance with spills of Radioactive Materials contact University of Toledo Police at x2600 to reach the Radiation Safety Office.

PROCEDURES

1. Decontamination of any area shall be accomplished by working from the outer edges towards the center.

2. Make full use of protective clothing, footwear, gloves, masks, etc. to reduce the possibilities of personnel contamination for those conducting the decontamination procedures.

3. Do not wear protective clothing, etc. outside of a designated change area.

4. Handle all equipment used in decontamination and all run-off solutions as ones which are potentially contaminated.

5. Make provisions for the disposal of all used cleaning materials and equipment as well as other contaminated articles in the area. Therefore, always bring the necessary collection receptacles to the area in question, not vice versa

6. Make full use of available instrumentation for monitoring, choosing the most effective for your purposes.

7. Make a complete record of the decontamination operations.

8. After decontamination has been completed, do not permit any work or occupancy within the area(s) until approval has been obtained from the Radiation Safety Office.

9. Monitor each step of the decontamination operation just as if it was a separate, unrelated incident.

10. Suggested agents for removal of contamination from various surfaces can be found in appendix #10 of the Radiation Safety Manual.

Appendix E Emergency Procedures Involving Mercury Hazardous Materials
Mercury Spill Procedure

Do not attempt to clean up a mercury spill yourself. Mercury spills must be cleaned up by trained personnel using specialized equipment. Even small thermometers contain enough Mercury to present a significant hazard if cleaned up improperly.

1. Restrict access and do not allow anyone to walk through the spill area – this can spread mercury contamination to adjacent areas.

2. Protect floor and sink drains from mercury contamination if applicable.

3. Contact University of Toledo Police at x2600 to allow trained responders to be involved. Let University of Toledo Police know the location of the spill, if the spill is in a residential area, or an instructional/research area, if it located on tile, or carpet, and the approximate amount of mercury that was spilled.

Appendix F Hazardous Materials Incident Report

Incident No.:

Actual Date: **Actual Time:**
Record Date:

Employee Filing Report:

Location:

Cause:

Material:

Detail:

Corrective Action:
Follow-up:

Notified:

Attachment:

Reviewed: _____

cc: H. Lorenz