

Content

- I. About UMD Campus
- II. Purpose
- III. Emergency Telephone numbers
- IV. Emergency coordinators
- V. Emergency Procedure
- VI. Anticipated Emergencies
- VII. Chemical Spill Guidelines
- VIII. Arrangement with Local Authorities
- IX. Appendix 1



I. About the UMD Campus:

The University of Minnesota Duluth (UMD) Campus is located in a residential neighborhood within the City of Duluth overlooking Lake Superior. UMD consist of more than 50 buildings, covering a total of 2.6 million square feet. The primary campus covers 244 acres. Most buildings at the UMD campus are connected by concourses or hallways, providing easy access for students with disabilities and offering convenience for material movement, evacuations, and egress to all students and staff year round.

The estimated population of the UMD, including employees, is approximately 12,000. The population of the City of Duluth is about 83,000.

II. Purpose:

The purpose of this plan is to minimize the impact of hazards to UMD researchers, employees, staff, the general public and surrounding environment from fires, explosions or any unplanned, sudden release of hazardous waste or hazardous waste constituents to air, soil or water, including biological and radiation hazards.

Primarily, the UMD Campus Hazardous Materials Emergency Coordinator, and/or his/her alternate manage the plan. All employees and laboratory personnel involved in the management and/or use of hazardous material at the laboratory shall be made familiar with the components of this plan, so that they may assist emergency responders during a hazardous materials incident. In addition, the plan shall be distributed to appropriate emergency response units, which might respond to the emergencies described herein.

For the purpose of this plan, an emergency is defined as a fire, explosion, or release of hazardous material or chemical waste including biological agents and radioactive materials, which could threaten human health or the environment. The provisions of this plan will be carried out immediately whenever an emergency occurs.

Fire emergency preparedness and building evacuation are discussed in detail in the UMD [Building Emergency Evacuation Plan \(BEEP\)](#). The BEEP Plan can be viewed at: <http://www.d.umn.edu/ehso/beep/>. Other Emergencies, or disasters not involving hazardous chemicals, or are beyond the scope of this contingency plan are dealt through [the Emergency Operation Plan](#) at <http://www1.umn.edu/prepared/plans.html> .



II. Emergency Telephone Numbers

General Emergency	911
Fire Department	911
Police Department	911
UMD Environmental Health and Safety Office	218-726-7139
University of Minnesota-Twin Cities Environmental Health and Safety Department	612-626-6002
Coast Guard Chemical Spill Response	218-720-5286 or 218-522-0707
State Duty Officer	1-800-422-0798
National Response Center	1-800-424-8802
Chemical Waste Transportation Emergency Hotline	1-800-424-9300

III. Emergency Coordinators

During Working Hours: 8:00 A.M. - 4:30 P.M.

The following persons are familiar with this Contingency Plan, hazardous waste management at UMD and the operations and activities of the UMD Hazardous Waste Storage Laboratory. Both are qualified to act as emergency coordinators during hazardous material spills or incidents.

Name	Work Phone	Cell Phone
Andrew Kimball	218-726-6764	763-226-7011

After hours calls must be directed to 911. State the purpose of your call and request to be connected to University Police.



CONTINGENCY PLAN FOR HAZARDOUS WASTE GENERATORS

University of Minnesota Duluth. U.S. EPA- ID# MND980613798

In case the UMD-Environmental Health and Safety-Office Personnel cannot be reached, page or call the following in the order in which they appear:

Name	Address	Phone/Pager
Emergency Response Pager # 1	Univ. of Minnesota Twin-Cities Campus	(612) 680-1545 (Pager)
Emergency Response Pager # 2	University of Minnesota Twin-Cities Campus	612) 680-1599 (Pager)

IV. Emergency Procedures

For the purpose of this plan, Emergency Procedures are the procedures to be followed during any emergency, and which consists of the following criteria:

A. Notification

Whenever there is an actual or imminent emergency, such as a toxic chemical release, fire, or explosion, which has the potential to cause pollution of the air, land resources, or waters of the state, and/or endangering the public health and well being of surrounding community, on scene personnel will call 911 and/or the Hazardous Material (Haz-Mat) Emergency Coordinator from the UMD Environmental Health and Safety Office.

Following the sequence of the list given in sections II and III, The Haz-Mat Emergency Coordinator will determine whether the spill constitutes a release of reportable quantity of hazardous material to the environment. If the chemical spill does meet the reportable quantity requirements, or where a release, fire, or explosion has the potential to cause pollution of the air, land resources, or waters of the state, the Haz-Mat Emergency Coordinator will then notify the State Duty Officer, and the Minnesota Pollution Control Agency (MPCA) Emergency Response Unit, and contact local, state, and federal agencies as necessary. Information provided by the Haz-Mat Emergency Coordinator to these agencies will include at least the information provided for in the following sections.

B. Identification of Released Materials:

Whenever there is a chemical release, fire, or explosion, the Haz-Mat Emergency Coordinator shall immediately identify **the source** and **amount of material released** from knowledge obtained from on site personnel, Material Safety Data Sheet (MSDS) and personal investigation. The character of the emergency will be established. The potential for fire, soil and water contamination and the potential release of toxic fumes to neighboring areas will be given the highest priority.



C. Assessment of Hazard:

The Haz-Mat Emergency Coordinator shall concurrently assess the possible hazards to human health or the environment that may result from the release, fire, or explosion. Factors to be considered in making this assessment are as follows:

1. Direct hazard due to the release:
 - a. Presence of flammable or corrosive vapors in the building.
 - b. Presence and character of released liquid or gas, either flammable irritant, corrosive, toxic, or asphyxiating.
 - c. Potential for involvement of other containers in the area due to heat produced in fire or corrosion of metal due to the release of an acid, gas, or liquid.
2. Indirect hazards due to the release:
 - a. Ramifications of spill or fire upon human health and the environment.
 - b. Effects of fire or spill control activities such as water run-off.

Based upon the information obtained in the assessment, the Emergency Coordinator will determine whether evacuation of the building or a portion of it is warranted.

D. Evacuation Plan:

For this purpose a map of the site where emergency evacuation routes, spill response equipment, hazardous waste and/or material storage locations are indicated, is provided (see maps in Appendix I). UMD personnel are instructed to treat hazardous chemical spill incidents like fire emergencies. Depending on the nature and amount of material spilled, evacuation would proceed in the same manner as a fire situation (see [BEEP Plan](#)), people are instructed to alert neighbors, and attend to victims without endangering their own lives.

Evacuation maps with exit routes indicated on them are posted on wall by the elevator of every floor. Emergency phone numbers are posted by phones in all areas where hazardous materials are in use. A [Campus Emergency Information Desk Reference](#) booklet was also distributed.

E. Containment Measures:

Special containment measures are provided in areas where hazardous materials and/or hazardous waste are stored, used, or processed in the form of dikes to contain any spill. During emergencies, the Haz-Mat Emergency Coordinator shall take all reasonable measures necessary to ensure that fires, explosions, or releases do not occur, recur, or spread to other wastes stored at the site, or to storm water, whenever possible and without endangering human life. These measures will consist of collecting and containing spilled material and removing or isolating containers.

F. Emergency Equipment:

1. Fire Control Equipment:



CONTINGENCY PLAN FOR HAZARDOUS WASTE GENERATORS

University of Minnesota Duluth. U.S. EPA- ID# MND980613798

- a. Fire Extinguishers
Usually ten-pound, class B-C portable carbon dioxide extinguishers are available in or a proximity to most UMD laboratories, shops and service areas. They are mounted on walls of hallways, inside and next to the main entrance of each room or laboratory. These fire extinguishers are in compliance with National Fire Code standard for portable fire extinguishers. In the event of fire, trained personnel may chose to use the extinguisher if such action does not endanger their safety. Personnel are never required to attempt to fight fires.
- b. Water Sprinkler System
Most of UMD Buildings are equipped with a water sprinkler system
- c. Flammable Storage.
Flammable chemicals and chemical waste are stored in flammable cabinets and/or storage rooms where secondary containment is provided.

2. Spill Control Equipment:

Limited spill response equipment is located in room 103 Chemistry and could be brought to the spill site on short notice. Departments' Research and Safety Officers could use this equipment for clean up or confine small spills.

- a. Absorbents and/or Neutralizers:
Acid, Caustic, Solvent, and Formaldehyde neutralizing, adsorbing or solidifying agents for spills ranging in size from 1 to 10 liters; 30 pounds bags of vermiculite; 5 gallon plug and dike; spill absorbent pads, pigs and pillows; mercury decontaminating powder (Hg-X).

3. Internal and External Communication for Personnel Notification:

- a. Telephones:
Most of laboratories and service areas have access to telephones.
- b. Alarm Systems:
Fire alarm pull stations are located in most hallways of building, near exit stairways of all floors. Fire alarms would also be used to initiate building evacuation during chemical spills if situation warrant such action.
- c. Radios

Special tone-activated alert radio receivers that are placed strategically throughout camps would broadcast emergency related messages and instructions from central administration or University Police department to all campus constituents.

Facilities management employees also carry radios that can receive emergency messages.
- d. Texting

A New texting service to send emergency text messages to cellular telephones (with an email copy) has also been developed and is being used to warn the campus community of possible emergencies. To sign up for the service, students and staff are



CONTINGENCY PLAN FOR HAZARDOUS WASTE GENERATORS

University of Minnesota Duluth. U.S. EPA- ID# MND980613798

instructed to sign up for the service at [Emergency text alerts](http://www.d.umn.edu/emergency/umd_alerts.html)
<http://www.d.umn.edu/emergency/umd_alerts.html>.

A monthly test of the system is sent out on the first Wednesday of each month at 1:15 PM. The service is free of charge for all UMD Faculty, students and staff. It is spam and advertising free.

e. **Emergency Blastmail**

An email system intended to deliver a large number of messages as quickly as possible. This new (Blastmail) system, which can deliver 12,000 messages in 55 seconds, will also be used to disseminate emergency information to all campus community

4. **Personal Decontamination Equipment:**

a. **Safety Shower, Eyewash or Access to Running Water:**

Most UMD laboratories, shops and service areas have access to safety showers and eyewashes. All areas have access to running water through sinks and hose attachments. Special Decontamination area will be set up if necessary during emergency response to hazardous chemical spills.

5. **Personal Protective Clothing:**

a. **Respiratory Protection:**

Various models of half-face/full face respirators with cartridges for organic vapors/acid gas, HEPA dust protection and SCBA's are available for use by qualified and approved personnel who would be assisting outside responders during response to chemical spills on campus if needed. Respiratory protection is used only by trained personnel in accordance with University Respiratory Protection Program.

b. **Chemically Resistant Gloves:**

Heat/Cold, and chemical resistant gloves with permeation, degradation resistance guides are available for use

c. **Chemically Resistant Clothing: Chemrel Coveralls, Chem-Tuff Coveralls, Saranex Coated Tyvek Coveralls, Chemrel Booties along with tape for sealing gloves and boots.**

d. **Boots: Steel Toe Boots and shoes. And chemical resistant booties are also available**

8. **Storage Containers:**

55 Gallon open head high density polyethylene (HDPE) drums (DOT exemption DOT-E), 55-gallon open head steel drums (DOT-17H), 30-gallon open head steel drums (DOT-17H), 5 gallon HDPE pails, 45"X65"X.004" polyethylene bags, 35"X50"X.004" polyethylene bags.

9. **Tools and Miscellaneous Supplies:**

Various tools to aid in the cleanup of chemical spills such as Brooms, dust pans, mops, buckets, shovels, scrapers, utility knives, scissors, tape, marking pens, labels and handling tongs.



When responding to any emergency, the protection of human life and health takes the highest priority. In the event of a fire, explosion, chemical spill or other emergencies, removing personnel from immediate danger and attending to injured persons takes precedence. Emergency medical help may be summoned by dialing 911 from any telephone. All Site Personnel have access to these guidelines through the UMD Environmental Health and Safety website <http://www.d.umn.edu/ehso>, or the [Campus Emergency Information Desk Reference](#), which outlines the proper procedures to follow during a chemical spill or any emergency. Emergency Preparedness and response training is provided to all employees.

V. Anticipated Emergencies

The following types of emergencies may be anticipated at the UMD Campus:

- Chemical spills due to breaking of a glass container or a spill of flammable or reactive materials, which would present a fire or explosion hazard.
- Chemical release resulting from a slow leak in a stored container.
- Fire or explosion among stored chemicals due to auto-ignition or other causes.
- Petroleum or other chemical release from an oil delivery truck.
- Petroleum release from a malfunctioning emergency generator or a storage tank.

If a chemical spill occurs, the potential for harm to the environment as a result of fire, explosion, or chemical release is usually small, as laboratories are designed for the management of chemicals. Spills and vapors usually can be contained inside the building. The most common releases to the environment would come from chemicals entering the sanitary sewer system, or the storm sewer system.

VI. Chemical Spill Response Guidelines

General Chemical Spill Response Guidelines will include the following:

1. Attend to any persons who may have been injured by the spill, and identify released material.
2. Secure the area.
3. Remediate spill as per operating procedures following OSHA, NFPA and MPCA guidelines for the management of chemical spills and the University of Minnesota Duluth [Chemical Spill Cleanup Guide](#).

Typically, absorbent will be poured around the spill as a dike and then poured to cover and absorb the material. When the spill has been absorbed, the used absorbent will be collected in pails or drums. In case of larger spills every possible measure will be taken to prevent the spilled material from entering the sanitary sewer, or the storm sewer systems.



The contents of all containers of used absorbent from a spill cleanup will be clearly marked on a hazardous waste label. Any appropriate warning labels will also be placed on the containers. The spill area will then be washed with an appropriate neutralizer, followed by a detergent-water wash. Unaffected containers and supplies will be removed from the spill site. If soil is contaminated, it will be removed and treated as hazardous waste. In the event of a fire or explosion, UMD personnel are instructed to immediately evacuate the premises, call 911 to report the incident and attend to victims if any.

VII. Arrangements with Local Authorities:

Under the generator requirements of Minnesota Rules 7045.0568, arrangement must be made to familiarize local emergency response units with storage and accumulation locations of hazardous waste at UMD, properties and types of waste handled and types of emergency situations involving fires, or chemical releases that may happen as a result of such activities. In this regard, the Regent of the University of Minnesota entered into a joint power agreement with The City of Duluth on behalf of UMD, with the purpose that local response units provide hazardous materials response services for the University's Duluth campus and for UMD to provide training opportunities for the Duluth Fire Department's Haz-mat response team. The parties have entered into this agreement with the goal of serving the University and the people of Duluth through their collaborative efforts and with the recognition that more public benefit can be achieved through cooperation than would otherwise be possible.

The following emergency response agencies have been notified of this contingency plan in writing:

- Duluth Fire Department
- Duluth Police Department
- St Louis County Emergency Management Department
- St Louis County Sheriff's Office
- Minnesota Pollution Control Agency Duluth Office
- St Mary's Hospital
- St. Luke's Hospital
- Duluth Gold Cross Ambulance

In the event of an emergency, during working hours, UMD personnel will call the on-site emergency coordinator or his alternates. After hours and on holidays, personnel will call **911**. The operator will take information from the caller and notify the UMD Police Department and other appropriate emergency response agencies/units.

Depending on the type of emergency, the following may be contacted in the order in which they appear:

- UMD Police Department 911
- UMD Environmental Health and Safety Office
218-726-7139, Cell-phone: 763-226-7011
- University Of Minnesota - Environmental Protection Division
612- 626- 6002.
- Duluth Fire Department. 911
- Minnesota State Duty Officer 1-800-422-0798



VIII. Appendix I

[Site Maps](#)

< http://www.d.umn.edu/ehso/UMD_Contingency_Plan/maps.html >

[General Waste Inventory](#)

<http://www.d.umn.edu/ehso/UMD_Contingency_Plan/inventory.doc>

[Emergency Contacts Telephone Posting](#)

<<http://www.d.umn.edu/ehso/post/>>

[Campus Emergency Information Desk Reference](#)

<<https://www.d.umn.edu/ehso/emergencies>>

[Chemical Spill Cleanup Guide](#)

<http://www.d.umn.edu/ehso/Spill_Cleanup_Guide.pdf>

