

HAZARDOUS MATERIALS INCIDENT

Prelude

On the Wittenberg campus, it is unlikely that there could be a “significant” spill or release of a hazardous material under ordinary circumstances or operating conditions. The reasons for are that the ordinary operations on campus, both in the academic and non-academic areas, we have relatively few materials in significant enough quantity to warrant a heightened awareness of the probability for a significant event. The areas on campus that possess hazardous materials are the Barbara Deer Kuss Science Center, Koch Hall (Art Department), Theater and Physical Plant.

The analysis below assumes that we are under “normal operating conditions”; the possibility of a terrorist-type incident where some person or group intentionally introduces a hazardous substance to the campus environment would immediately involve Wittenberg and Springfield Police and the Springfield Fire Department (SFD). In such an incident, the control of the incident would be immediately transferred to the SFD HazMat team. Wittenberg personnel and resources would be in a subordinate role.

Thus, this document describes the responses that Wittenberg should follow which, depending upon the scope of the incident and the nature of hazardous substance, may or may not involve the SFD. Only incidents that are small in nature would be handled by Wittenberg personnel, but these are surely the most likely events.

Faculty and staff in the science departments, Art department, Theater and in physical plant have the training to handle small incidents. Further, except in Chemistry where there is a very wide range of chemicals, the lists of hazardous substances in the other sciences, Art, and physical plant are fairly small and substance-specific protocols can be employed.

Comments about Hazardous Material Inventories on Campus

In Chemistry, the storage and use of hazardous substances are very well controlled and personnel are trained to handle small incidents.

There are only a few scenarios where the volume and nature of the substance would warrant the use of the SFD HazMat team.

The conditions that warrant the use of the SFD HazMat team are:

- The quantity of a flammable liquid is more than 100 mL
- The quantity of a corrosive liquid is more than 1 L
- A flammable or toxic gas is involved in an uncontrollable leak
- The quantity of a toxic liquid (with a significant vapor pressure) is more than 100 mL

The quantitative limits above are more illustrative and clear-cut. In all “small events” the judgment of the faculty or staff member can be employed to determine actual risk level posed by the hazard.

The main categories of hazardous substances are:

- Fire hazard for liquids (most easily categorized by the NFPA fire diamond rating).
- Corrosive liquids (categorized by the NFPA fire diamond rating under “reactivity”).

Toxic liquids (most easily categorized by the NFPA fire diamond rating for “health”).
Gases (either flammable or toxic/asphyxiant).

In Physical Plant, there are 1- and 5-gallon gas containers that are stored in a flammable cabinet. There are also some refrigerants in cylinders. Physical plant has an absorbent to contain a gasoline spill.

Response Protocols

The immediate response to any spill or leak of a hazardous substance is to:

- Immediately **evacuate** the room where the spill/leak has occurred
 - In some instances, it may be prudent to evacuate the building by pulling a fire alarm. If it is prudent to do this, one should also call the SFD using 911.
- **Isolate** the spill/leak by closing all room doors
- **Mitigate** the spill with appropriate clean-up (if trained to do so)
- If any uncertainty exists about one’s ability to handle a “small” incident, **communicate** to other authority figures in the building and call 911.

It is likely that someone will be able to be able to definitively determine the nature of the substance involved.

If there is a release of a flammable liquid or gas, attempt to remove sources of ignition (*examples: active electrical equipment, vehicles engines*) **if it is safe to do so**.

When in doubt about the scale of the incident or the level of risk involved, it is appropriate to call Wittenberg Police at 937-327-6363 and 911 from the nearest telephone. When calling 911, the critical information is:

- nature of the spill
- location of the spill
- information regarding anyone injured or otherwise contacted by the material
- a description of any fire or explosion caused by or occurring nearby the spill.

Once the 911 system is activated, the locus of control of the event will shift to the Wittenberg Police and SFD. Local actions should then be:

- Immediately evacuate the area and alert others nearby;
- Only trained personnel should be involved in the cleanup and/or removal of the spill.
- Do not expose yourself to a dangerous situation.
- Do not re-enter the contaminated area until given the all clear by emergency personnel.

For persons who might have been contaminated by the release:

- Get them to fresh air (outside) if there is any evident of having inhaled a gas or vapor.

- Use emergency showers and eyewashes (and know the location of these in advance)

If there has been contamination of a large number of people, the HazMat team will conduct decontamination protocols.

Other HazMat incidents unrelated to normal operating conditions

Two other hazmat scenarios are possible, if unlikely, that could affect campus operations. Both involve immediate activation of emergency response using 911.

First, a vehicle carrying hazardous substances could have a release while traveling on Fountain Avenue, Plum Street, or other near- or on-campus locations. This would likely involve a crash and Wittenberg and Springfield Police and the SFD would respond immediately. The local protocol should be to evacuate the area.

Second, it is possible that some terrorist-type activity would involve the release of a toxic substance inside a building or outside. In either case, evacuation of the area is the best response.

Extra comments for more generic spills; directions for completely “untrained” personnel

• What to Do Inside

- If you are inside where a spill has occurred, immediately evacuate the building.
- If you cannot evacuate, go to a protected, interior area of a building where toxic vapors are reduced, close all windows and doors and seal gaps under doorways and windows with wet towels and thick tape, such as duct tape.
- If there is risk of an explosion, close all shades and draperies.
- Stay away from the windows to prevent injury from flying glass.
- If you suspect that gas or vapors have entered the building, take shallow breaths through a cloth or towel.
- Notify Wittenberg Police / Environmental Safety from a safe location as soon as it is practical.

What to Do Outside

- Move uphill and upwind; hazardous materials can be transported quickly through air and water.
- Go to a protected, interior area of a building where toxic vapors are reduced.
- Notify Wittenberg Police/Environmental Safety from a safe location as soon as it is practical at (number)

What Not to Do

- Do not attempt to clean up a spill.
- Do not touch or step in spilled materials.

What to Do After Exposure to Hazardous Materials

Corrosives: these are substances that cause visible destruction or permanent changes of the skin tissue upon contact.

- Wash your eyes for 15 to 20 minutes if they are affected. Eyelids must be open; do not rub the injured area.
- Get under a shower, remove all clothing, and wash with soap and water.

Flammables: these are liquids with a flash point below 100 degrees F with vapors that burn readily.

- Turn off the electricity main and gas jets.
- Evacuate the building.

Toxics: these are poisonous substances.

- Wash your hands.
- Discard contaminated clothing or objects.
- Use the appropriate antidotes.

Reactives: these are substances that can undergo a chemical or other change that may result in explosions, burns, or corrosive or toxic conditions.

- Close all doors.
- Evacuate the danger area.
- Follow decontamination instructions from local fire or health authorities.