

Chemical Hygiene Plan

Objective

The primary objective of this plan is to protect Normandale's employees and students from health and safety hazards associated with the use of hazardous chemicals and to meet the standards set by OSHA Standard 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories. This plan is intended to be a working document that will be modified as necessary and review annually.

General Principles of the Chemical Hygiene Plan

To meet the objective of providing a safe work place for Normandale's faculty, staff and students, this plan formally puts into writing practices that are currently followed in Normandale's science facilities.

- ✓ Minimization of chemical exposure through prudent lab practices
- ✓ The use of the smallest quantity of hazardous materials necessary to demonstrate the principle of an experiment
- ✓ The reduction of hazardous materials used in the labs by substituting non- hazardous materials whenever possible
- ✓ The assumption that all chemicals have potential toxicity that requires safe handling and use
- ✓ The use of all engineering and administrative controls such as personal protective equipment to reduce potential exposure
- ✓ The teaching and maintenance of good housekeeping practices
- ✓ The teaching of proper lab practices to our students

Coordination with other Safety Plans

This plan is intended to be consistent with Normandale's Emergency Response Plan as well as other safety plans. Normandale's Security and Building Services Departments will be playing a supportive role to the Campus Science Departments as administrators of the Emergency Response Plan and Environmental Health and Safety Programs.

Responsibilities

Instructors

Instructors are responsible for the following:

- Training College Lab Assistants to ensure they are aware of all aspects of the specific experiments that they are working on
- To ensure that staff will attend all required safety training sessions
- That Students and Staff wear required proper personal protective equipment
- That students are familiar with eyewash stations and emergency showers
- To ensure that students follow all safety rules as outlined in the syllabus
- Reporting of all hazardous conditions to the Chemical Hygiene Officer and if appropriate the Campus Security Officers
- The reporting of all accidents and injuries to the Campus Security Department
- Safety and Compliance in the labs

College Lab Assistants

Lab support staff is responsible to:

- ✓ Attend all training sessions
- ✓ Help the instructors enforce all department and campus safety policies

Chemical Hygiene Officer

The position of State Program Administrator serves as the College Chemical Hygiene Officer. At Normandale, Jon Hanson will be serving in this capacity. This position will serve as a resource regarding Environmental Health and Safety issues and will play a supportive role to faculty, staff and senior administration by ensuring compliance to, and help in interpreting laws and rules regarding lab and campus safety as dictated by City, County, State and Federal regulations.



The role of this position is as follows:

- Ensuring compliance to OSHA regulations as well as those set out by other governmental organizations such as the MPCA and local Fire Inspectors
- Providing training opportunities
- Resource for questions regarding compliance
- Ensuring personal Protective Equipment is available to staff
- Performing weekly inspections on the campus eyewash stations/showers, fire extinguishers, etc.
- Providing spill control supplies
- Performing semi-annual fume hood testing
- Providing first aid supplies
- Provision of Material Safety Data Sheets
- Support in the event of an emergency
- Monitor and manage hazardous waste
- Oversee eyewashes and shower

General Safety Practices

- ❖ Students may never be left unattended in a lab. An Instructor or CLA must be present
- ❖ Work areas should be clean and orderly
- ❖ Student conduct should be orderly, or the student should be removed from the lab
- ❖ Hazardous experiments should never be left unattended
- ❖ Eating or drinking should never be allowed in a lab
- ❖ All refrigerators in the lab shall be used as labeled with no food storage
- ❖ Hot surfaces should be labeled accordingly
- ❖ Personal protective equipment must be worn, based on the experiment
- ❖ Loose jewelry must be removed prior to the start of any lab work
- ❖ Open toed

Chemical Handling Practices

- ✚ Do not smell or taste chemicals
- ✚ Avoid skin contact whenever possible
- ✚ Do not use mouth suction for pipetting or to start a siphon
- ✚ Do not use eyewash stations for washing lab equipment
- ✚ Label all lab containers as to content
- ✚ Use alcohol based thermometers whenever possible
- ✚ Store all chemicals based on compatibility
- ✚ Do not use damaged glassware
- ✚ Know where the spill containment kits are located

Receiving Chemicals

- Chemicals should remain packed until they are delivered to the labs
- Receiving staff should not accept any containers which appear to be leaking or damaged
- College lab staff or the Chemical Hygiene Officer is responsible for any clean up

Labeling

- All hazardous chemicals must be clearly marked with the chemicals identity and an appropriate hazard warning
- Manufacturer's labels and warnings should not be removed
- The chemical formula may be used as a means of labeling if it is common knowledge to everyone working in the area
- All temporary containers should be labeled with the chemicals identity and an appropriate hazard warning. If a temporary container is to be used by one person for a short period of time the container does not need to be labeled, such as in a classroom experiment
- All hazardous waste should be labeled with the chemicals identity and an appropriate hazard warning



Material Safety Data Sheets

It is the responsibility of the Environmental Health and Safety Supervisor to provide MSDS's for all chemicals found on campus. "Hard copies" are available in each lab. Our online system can be located on the INET under "Environmental Health and Safety". Please forward any new chemical information to Building Services. For further information regarding hazard communications please review the "Employee Right to Know" (ERK) plan.

Disposal of Hazardous Wastes

When it has been determined that a chemical is no longer to be used as a material for classroom purposes, it is now classified as a waste. Please submit a work order through the Building Services online work order system or dial Ext. 8110 and a request will be filled out for you. Storage of hazardous waste in the Chemistry Lab requires proper labeling as listed above.

**Also review the campus "Hazardous and regulated Waste Plan"*

Training

Lab safety training will be held annually regarding the Chemical Hygiene Plan and other lab safety issues including:

- ✓ Employee Right to Know
- ✓ Hazardous Waste Management
- ✓ Compressed gas use and storage

Fume hoods

Normandale, following the University of Minnesota's procedures will use the following determinations for required use of the fume hoods.

If the chemical procedure exhibits any one of these characteristics to the degree that:

1. Airborne concentrations might approach the permissible exposure limit (PEL)
 2. Flammable vapors might approach 1/10th of the lower explosion limit
 3. The odor produced is annoying to lab occupants or nearby classrooms
- A. Fume hood testing
All fume hoods will be tested on an annual basis. It will be the responsibility of the Building Services Department to have this test performed annually. The results will be posted in each lab.
- B. Monitoring fume hoods
Fume hoods should be monitored daily to ensure air is moving into the hood. Please report any alarms immediately or if you are questioning whether or not they are working to the Building Services Department at Ext. 8110.
- C. Acceptable Operating Range
The acceptable operating range for fume hoods is 80 to 150 linear feet per minute at a sash opening of 18". Too much flow through the fume hoods is just as dangerous as too little.

Personal Protective Equipment

Personal Protective Equipment should be worn whenever hazardous chemicals are in use or the potential for exposure to blood borne pathogens exists. OSHA requires the College to cover these costs.

Lab Coats: Lab coats are strongly recommended for all staff working in the labs at Normandale, especially when working with strong acids and bases, substances with a high degree of acute toxicity and any substance on the OSHA PEL list that has a "skin" notation. In addition lab coats should be worn by all Dental and Nursing faculty working in a lab or clinic setting.



Eye Protection: all staff should wear eye protection when working in labs which may expose them to chemical or physical hazards.

Gloves: Gloves should be selected by use and manufacturer's recommendation. Please refer to the Material Safety Data Sheets for proper selection for the material being used.

Restricted Access Area

Normandale's Science Labs are restricted areas. A faculty member or College Lab Assistant should be present at all times when students or visitors are present.

Emergency Procedures

In the event of an emergency, please contact Security at Ext. 555. If you feel that the emergency warrants immediate help from local authorities please dial 911 and then contact Security.

Accidents/Injuries

All employees in Normandale's Science and Health Science Departments have the right to seek medical consultation and examination, in particular under these circumstances:

- ✚ When an employee sees a sign or symptom after working with a hazardous material
- ✚ When an employee may have been exposed to past the permitted exposure level as listed on the Material Safety Data Sheet
- ✚ Whenever an emergency event has occurred in the area that they are working

Employee Injuries

Incident Data Forms should be filled out any time that a medical consultation is required. These forms are available in Human Resources. If you feel that you need to seek help, do so right away and fill in the form with your supervisor as soon as possible after you have received help. This form is also your protection to make sure that you are receiving the proper care and that there is a record in place in the event of future problems.



Designated Medical Clinic

Aspen Medical Group
7900 Cedar Ave. S.
Bloomington, MN 55425

Clinic Hours:
Monday – Friday: 8:00 a.m. - 5:00 p.m.
(The lab opens at 7:00 a.m.)
952-851-1000

Urgent Care Hours
Monday- Friday: 5:00 p.m.-10:00 p.m.
Saturday and Sunday: 9:00 a.m.-5:00 p.m.
651-641-7021

Designated After Hours Clinic
Fairview Hospital
6400 France Ave. S.
Edina, MN 55435

Student Injuries

Student injuries in Normandale's Science Labs should be reported to the Campus Security department and an incident investigation form filled out. Students are responsible to maintain their own insurance. If it is determined that emergency help is need please dial 911 and then contact Security at Ext. 555. If there is any question as to that determination Security will be able to help make that determination.

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