



## South Dakota State University Laboratory Safety Program

Environmental Health and Safety Office  
Dr. Gary Yarrow, Director  
Shepard Hall 059; Box 2202  
South Dakota State University  
Brookings, South Dakota 57007  
605-688-4264

[Gary.Yarrow@sdstate.edu](mailto:Gary.Yarrow@sdstate.edu)  
[Jayme.Trygstad@sdstate.edu](mailto:Jayme.Trygstad@sdstate.edu)  
[Deb.Heffernan@sdstate.edu](mailto:Deb.Heffernan@sdstate.edu)

The Environmental Health and Safety Office has embarked on a major new safety program that will impact all personnel on campus that use or store hazardous materials. This program has been developed in conjunction with the South Dakota State Risk Management Office in Pierre. Senior administrators at SDSU have approved the draft procedures and policies.

SDSU, being a part of the South Dakota State Government system, is not legally under the regulations of the Occupational Safety and Health Act (OSHA). However, we are under the regulations and policies of the SD Office of Risk Management, SD Dept. of Natural Resources (which acts as a state EPA), certain regulations of the EPA, and others. To comply with these regulations, we are using the policies set forth by the OSHA Laboratory Standard (29 CFR 1910.1450). A complete copy of this standard is on the EHS website, <http://www3.sdstate.edu/Administration/EnvironmentalHealthandSafety/LaboratorySafety/>

Initiation of this program will begin July 1<sup>st</sup>, 2002. The goal for total implementation is January 1<sup>st</sup>, 2003. Although we believe this is achievable, it is also ambitious. The following pages are a synopsis of the program. The policies and procedures of this program will be evolving over the next few years, thus there will be changes as we learn and receive comments from participants. There will be a manual available later this summer, as well as training sessions.

As of July 1<sup>st</sup>, 2002:

1. All new chemicals purchased or acquired must be inventoried. EHS will make available an Access database for such use. The database will have some elements required but may be customized.
2. Food or beverages will be strictly forbidden to be consumed or stored in any facility, room, etc. where hazardous materials are used or stored.
3. It is strongly recommended that the wearing of sandals or open toed shoes be restricted in areas where there is active use of hazardous materials.
4. All storage of hazardous materials must follow EHS guidelines (which will be forthcoming).
5. Any room that stores or uses hazardous materials must have a door sign complying with EHS recommendations (EHS will provide such signs.)

## Requirements:

1. Must meet SD Risk Management's Requirements.
  2. Meet OSHA's Laboratory Safety Standard.
  3. Compliance with EPA and SD-DENR regulations.
  4. A working document. It will be evolving as regulations, needs, etc. are determined.
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## General Requirements:

1. All PI's must develop a **Laboratory Safety Plan** for any facility under their direction (EHS will provide template), including:
  - a. A **chemical hygiene plan**.
  - b. Description of **safety procedures for laboratory**, including:
    - i. **Chemical Standard Operating Procedures** (procurement, receiving, storage and use of hazardous materials).
    - ii. Procedures for handling of **special chemicals** such as: hydrofluoric acid, chloroform/phenol, other chemicals classified as "Highly Dangerous" or "Extremely Dangerous".
    - iii. Any **special equipment** such as X-ray producing machines, radioactive chemicals, high voltage instruments, etc.
2. **Database/inventory of all hazardous materials** that are possessed and used in any facility, room, field, etc. that the PI has authority over or by anyone under the direction of the PI.
3. The **hazardous inventory, on a yearly basis, must be updated** and submitted to the EHS office. EHS will provide a template.
  - a. The procedure for updating the inventory is as of yet undetermined. Options:
    - i. **Interactive website** that would feed into a database on a server. This could also be used then to print out or export to the user for their laboratory. Such a system would be password protected. U of AZ has such a system now.
    - ii. Submitting to EHS by either **Access database or Excel spreadsheet** that can be imported into campus wide database.
4. **A MSDS will be required for all hazardous materials.**
  - a. The PI will be responsible to ensure that all hazardous materials have a MSDS.
  - b. EHS will assist in obtaining MSDS's, but will not be responsible for "setting up a lab".
  - c. For any MSDS that is not available, it must be documented (age, "synthesized chemical", etc.) in the database.

## Training

5. All laboratory workers will be **required** to attend, at a minimum, the following **training classes** which will be offered by EHS:
  - a. General Laboratory Safety
  - b. General Chemical Safety
  - c. Procurement, handling, storage and disposal of hazardous materials.
  - d. Working with laboratory animals (Campus Vet?)
  - e. Other periodic training will be available (required?).
6. **EHS will document** and send documentation to PI's and workers.
7. For any laboratory worker that starts between classes, EHS will have a "**laboratory training checklist**" that the PI or designee must cover with the new employee until the next class meets. We anticipate having very regular classes for a time until all present laboratory workers on campus are trained. After that, when we get 5-6 people registered for a class, we will then offer it. Very similar to the present subsidiary user training sessions for radioactive materials. **The checklist will not substitute for any of the classes, and the worker must attend the next available class.**
8. The PI will be responsible for making sure that all personnel reporting to the PI will have taken the classes and, in addition, **trained and documented for any special hazards** in the PI's facilities such as special equipment, "Highly Hazardous" or "Extremely Hazardous" materials. EHS will be available to assist, if requested.
9. The PI will be responsible for ensuring that all laboratory workers, under his or her direction, follow all **SDSU's policies concerning procurement, handling, storage and disposal of hazardous materials.**
10. EHS will routinely (at least yearly) **inspect laboratories and laboratory records** to ensure compliance with SDSU policies and to assist with any problems, etc. that have arisen.
11. **This new program not only covers laboratories, but any campus facilities that use or store hazardous materials.**
12. The program **will also cover off campus facilities** such as research stations, off campus laboratories, off campus teaching facilities, etc.
13. **EHS welcomes any comments or suggestions for this program.** As stated previously, this program will be evolving depending upon input from any SDSU employee or student.