

Environmental Health and Safety Update

Security of Hazardous Materials in Laboratories

Overview

Laboratories need to take specific actions in order to provide security against theft of highly-hazardous materials, and to ensure compliance with federal regulations. Environmental Health and Safety (EHS) urges each department to review and develop procedures to ensure the security of all hazardous materials in their area of responsibility.

Many laboratories already implement various means of security, including securing controlled substances, syringes and needles, and radioactive materials. EHS asks you to review and assess the hazardous materials in your laboratory and consider security issues. **One easy way to increase security is to ensure your laboratory door is locked whenever the laboratory is left unattended, even for a few minutes.**

Applicability

All areas where hazardous materials are present in the College.

Procedures

Follow these guidelines to minimize opportunities for intentional removal of any hazardous materials from your laboratory:

1. Recognize that laboratory security is related to but different from laboratory safety. Security is preventing intrusion into the laboratory and the theft of equipment or materials from the laboratory.
2. Develop a site-specific security policy.
 - Make an assessment of your laboratory area for hazardous materials and particular security issues.
 - Develop and implement laboratory security procedures for your laboratory group.
 - Train laboratory group members on security procedures and assign responsibilities.
3. Control access to areas where hazardous materials are used and stored.
 - Limit laboratory access to only those individuals who need to be in the laboratory.
 - Restrict off-hours access to individuals authorized by the principal investigator.
 - Lock freezers, refrigerators, storage cabinets, and other containers where stocks of biological agents, hazardous chemicals, or radioactive materials are stored when they are not in direct view of workers (for example, when located in unattended storage areas).
 - Do not leave hazardous materials unattended or unsecured at any time.
 - Close and lock laboratory doors when no one is present.

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4. Know who is in the laboratory area.

- Know who is in the laboratory area at any given time.
- Consider using a logbook for staff to sign in and out each day or using carded access devices.
- Ensure all staff wear their College identification badges.
- Approach anyone you do not recognize who appear to be wandering in laboratory areas and ask if you can help direct them.

5. Secure your highly hazardous materials.

- Use a log to sign highly hazardous materials in and out of secure storage.
- Take a periodic inventory of all highly hazardous chemicals, biological agents/toxins, radioactive materials, and controlled substances. **This could be as simple as frequently looking at your chemical containers to be sure that none are missing.**
- Track the use and disposal of hazardous materials. Report any missing inventory to Environmental Health and Safety.
- Know what materials are being ordered and being brought into the laboratory area. Visually screen packages before bringing them to the laboratory. Packages containing potentially infectious materials should be opened in a biological safety cabinet or other appropriate containment device.
- Know what materials are being removed from the laboratory area.

6. Have an emergency plan.

- Control of access to laboratory areas can make an emergency response more challenging. This must be considered when emergency plans are developed.
- Have a protocol for reporting incidents. Laboratory directors, in cooperation with facility safety and security officials, should have policies and procedures in place for the reporting and investigation of incidents or possible incidents, such as undocumented visitors, missing chemicals, or unusual or threatening phone calls.
- Review and update the laboratory's emergency contact information on or near your laboratory door as needed.

7. Agents of concern: classes of particularly hazardous chemicals

- Laboratory researchers should be aware of the highly hazardous materials they have.
- For lists of biological diseases and agents go to the CDC website at:
<http://www.bt.cdc.gov/Agent/Agentlist.asp>
- For a list of highly-hazardous chemical agents, review the acutely-toxic chemical list at:
<http://www.med.cornell.edu/ehs/acute.pdf>

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Summary: Look out for these important areas of concern:

- Open labs
- Unrestricted access to toxic materials
- Unlocked support rooms
- Toxic gas security
- Biological materials not secured
- Access to controlled substances
- Changes in chemical inventory
- Storeroom security
- Chemical waste collection areas
- Unusual activities

Additional information:

- Contact EHS for assistance and/or visit the EHS web page for additional information
- Review laboratory product catalogs for information about various locks, lock boxes, and other security devices for chemical storage in laboratories.

References

“Security of Hazardous Materials” Cornell University, Department of Environmental Health and Safety, March, 2002.