

Laboratory Security for Hazardous Substances



Overview

Laboratories at Weill Cornell Medicine (WCM) need to take specific actions in order to provide security against the theft of hazardous substances and ensure compliance with federal regulations. Environmental Health and Safety (EHS) reminds each department to conduct periodic assessments of substances in its laboratories and review security measures to protect them.

For some substances, security can be as simple as ensuring that a laboratory door is locked whenever the laboratory is left unattended. However, a laboratory that stores or uses Highly Hazardous Substances (HHSs), DEA-controlled substances, infectious agents, or radioisotopes must meet a higher security standard.

Applicability

Faculty, staff, students, and visitors working in laboratories where hazardous substances are present.

Responsibilities

Principal Investigators are responsible for identifying all hazardous substances in their laboratories, maintaining an inventory of these substances, and developing and maintaining appropriate security measures for them. This includes developing [High Hazard Operating Procedures for Highly Hazardous Substances](#) and ensuring that all laboratory staff is trained in and compliant with security procedures.

Laboratory Personnel maintain awareness of hazardous materials in the laboratory, complete required training for handling hazardous substances, and follow established security procedures. Laboratory personnel is also expected to ensure that their Principal Investigator is aware of any new hazardous substances being stored or used in the laboratory.

Environmental Health and Safety (EHS) provides assistance to laboratory personnel to develop procedures to ensure the security of all hazardous materials in the laboratory.

Procedure

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

- 1. Recognize that laboratory security** is related to, but different from, laboratory safety. Laboratory security is the prevention of intrusion into the laboratory and theft of equipment or materials from the laboratory.
- 2. Develop a site-specific security policy.**
 - Assess 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 while unsecured at any time.
 - Close and lock laboratory doors when no one is present.
- 4. Be aware** of who is in the laboratory.
 - Know who is in the laboratory area at any given time.
 - Use a logbook for staff to sign in and out each day or carded access devices.
 - Ensure all laboratory personnel wears their college-issued identification badges.
 - Approach anyone you do not recognize in laboratory areas and ask if you can help direct them.



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5. Be alert to 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.

6. Secure your Highly Hazardous Substances.

- Develop and follow a High Hazard Operating Procedure for each Highly Hazardous Substance and ensure that laboratory personnel is trained in and compliant with these procedures.
- Use a log to sign highly hazardous substances in and out of secure storage.
- Take a periodic inventory of all highly hazardous chemicals, biological agents/toxins, and radioisotopes. **This could be as simple as frequently looking at your chemical containers to ensure none are missing.**
- Track the use and disposal of hazardous materials. Report any missing inventory to EHS.
- Know what materials are being ordered and brought into the laboratory area.
- Visually screen packages before bringing them to the laboratory. Packages containing potentially infectious substances must be opened in a biological safety cabinet or other appropriate containment devices. Packages containing radioactive material must be opened following the guidelines in Section 22 of the [Radiation Safety Manual](#).
- Know what materials are being removed from the laboratory area.
- Requirements for the security of DEA-controlled substances are found in the EHS [Security of DEA Controlled Substances Update](#).

7. Incorporate Laboratory Security measures into your emergency plan.

- Review the laboratory's Health and Safety Door Sign contact information on your laboratory door as needed and inform EHS if the sign needs to be updated.
- Control of access to laboratory areas can make emergency response more challenging. This must be considered when emergency plans are developed.
- Have a protocol for reporting incidents. Laboratory Safety Coordinators or Principal Investigators, 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.

8. Agents of concern: classes of particularly hazardous chemicals.

- Laboratory researchers should be aware of the highly hazardous materials they have. The EHS updates regarding [Working with Carcinogens & Reproductive Toxins](#) and [High Hazard Operating Procedures](#) can assist researchers in recognizing particularly and highly hazardous substances.
- For lists of biological diseases and agents, visit the CDC website at <https://emergency.cdc.gov/agent/agentlist-category.asp>.
- For a list of highly hazardous chemical wastes, review the [EHS Acutely-Toxic Chemical List](#).

References

EHS Updates:

[High-Hazard Operating Procedures](#)

[Working with Carcinogens & Reproductive Toxins](#)

[Security of DEA Controlled Substances](#)

Radiation Safety Manual, <https://ehs.weill.cornell.edu/system/files/rsm.pdf>

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