

Chemical Carcinogens—Nonlaboratory Locations

OVERVIEW

Chemical carcinogens are substances that are either known to cause cancer in humans or animals or are suspected of being capable of causing cancer in humans. State and federal regulations require that departments that use chemical carcinogens establish specific controls and procedures to protect employees.

The controls and procedures may include:

- Establishment of designated areas
- Use of containment devices
- Personal protective equipment
- Exposure monitoring
- Medical surveillance
- Emergency procedures
- Removal of waste
- Decontamination

The specific controls, procedures, and regulatory requirements are dependent on the carcinogen and the location or type of use, e.g., laboratory or nonlaboratory.

- *Nonlaboratory* — applies to a location where manufacturing, processing, repackaging, releasing, handling, or storing of carcinogens occurs.
- *Laboratory* — applies to facilities where the "laboratory use of hazardous chemicals" occur (see *SPPM* 4.14). It is a workplace where relatively small quantities of hazardous chemicals are used on a nonproduction basis. The laboratory activities involve research and quality control activities.

Environmental Health and Safety (EH&S) helps departments to identify carcinogens and interpret applicable regulatory requirements. Laboratories must contact EH&S for assistance with developing specific controls and procedures to meet regulatory requirements and protect human health; telephone 509-335-3041.

RESPONSIBILITY

Department Chair

The department chair is to ensure that this policy is implemented.

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Supervisor

The supervisor is responsible for:

- Determining if carcinogens are used (see [Chemical Identification](#)).
- Contacting EH&S to report carcinogen use.
- Implementing a written chemical hazard communication program for the unit.

To obtain a program template, see the EH&S Chemical Safety/Hazard Communication website at:

ehs.wsu.edu/ohs/ChemHazardCommunication.html

or contact EH&S; telephone 509-335-3041.

- Ensuring workers within the unit receive all necessary training prior to working with chemical carcinogens.

If carcinogens are introduced into the workplace, ensuring that training and information regarding the carcinogens is presented and documented prior to actual use.

- Controlling potential hazard exposures to low as reasonably achievable levels through:

Process or equipment engineering design.
Administrative procedures.
Personal protective equipment.

- Complying with regulatory requirements (e.g., Hazard Communication Program, state and federal regulations). See also *SPPM* 5.10.
- Reporting release of a chemical carcinogen with any risk of exposure to workers.

Environmental Health and Safety (EH&S)

Once contacted by the supervisor, EH&S:

- Determines the regulatory requirements.
- Notifies the supervisor of the regulatory requirements.
- Conducts exposure monitoring, if applicable.

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- Recommends medical surveillance, if applicable.
- Assists with a hazard assessment.
- Submits reports to University administrators, and state and federal agencies, as applicable (e.g., report of the occurrence of incidents resulting in the release of a listed carcinogen into any area where employees may be potentially exposed; Incident Report).
- Conducts follow-up, including but not limited to exposure monitoring and risk assessment.

Employee

Employees working with chemicals are to:

- Ask supervisor if job duties require the use of carcinogens.
- Follow training in the safe use of carcinogens. Contact EH&S for more information; telephone 509-335-3041.
- Read and understand the unit's chemical hazard communication program.
- Report unsafe conditions.

**CHEMICAL
IDENTIFICATION**

Carcinogens are defined as substances that are either known to cause cancer in humans or animals or are suspected of being capable of causing cancer in humans. Substances are classified as carcinogens based upon state and federal regulations.

Regulated Carcinogens

The state of Washington Department of Occupational Safety and Health (DOSH) identifies the following chemical carcinogens in several sections of the *Washington Administrative Code (WAC)*.

| | |
|--------------------------------------|------------------------|
| 4-Nitrobiphenyl | Benzidine |
| Alpha-Naphthylamine | 4-Aminodiphenyl |
| 4,4'-Methylene bis (2-chloroaniline) | Ethyleneimine |
| Methyl chloromethyl ether | Beta-Propiolactone |
| 3,3'-Dichlorobenzidine (and salts) | 2-Acetylaminofluorene |
| 4-Dimethylaminoazobenzene | Bis-Chloromethyl ether |
| Beta-Naphthylamine | N-Nitrosodimethylamine |
| Vinyl Chloride | Ethylene Oxide |
| Acrylonitrile | Cadmium |
| 1,2-Dibromo-3 chloropropane | Butadiene |
| Inorganic Arsenic | Methylene Chloride |

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Regulated Carcinogens (cont.)

If departmental workers are to perform tasks using any of these carcinogens, contact EH&S for information regarding the regulatory requirements for these carcinogens; telephone 509-335-3041.

Although a chemical may not be identified as a carcinogen by the state of Washington, additional standards may apply. There are several ways to determine whether a product is a carcinogen:

- Review the chemical container label.
- Check the product's Material Safety Data Sheet (MSDS) for hazard information (see also 5.10).
- View a list of known carcinogens in the National Toxicology Program (NTP) *Annual Report on Carcinogens* (latest edition) or the International Agency for Research on Cancer (IARC) *Monographs* (latest edition).

Assistance

For assistance, contact EH&S; telephone 509-335-3041.