

Radiation Safety Guide For Ancillary Personnel



University of Washington

Radiation Safety Office
203 Hall Health Center
Seattle, WA 98195
(206) 543-0463

INTRODUCTION

The Radiation Safety Office has developed this guide to provide basic radiation safety information for ancillary personnel (i.e. custodial, facilities, and public safety staff) who occasionally work in areas posted with the radiation symbol. Ancillary personnel are not allowed to use or handle radioactive materials.

THE RADIATION SYMBOL

All radioactive materials and radiation generating devices must be labeled with this universal symbol for radiation.



Only personnel properly trained by the Radiation Safety Office should handle materials or devices labeled with this radiation symbol.

WHAT IS RADIATION?

Radiation is the emission of energy from matter. There are two types of radiation emissions, non-ionizing and ionizing radiation. Non-ionizing radiation such as visible, ultraviolet, or infrared light, radio waves, or microwaves may deposit thermal energy in the body or have no effect at all. Ionizing radiation, such as alpha, beta, and gamma radiation has sufficient energy to cause chemical changes to biological molecules. A large exposure to ionizing radiation may damage cells or tissues. Sources of ionizing radiation on campus are radioactive materials and x-ray machines.

Background radiation is the term used for radiation that is found in nature. Radiation has always been present on earth and is part of our natural surroundings. Some natural sources of background radiation include the air we breathe, the food we eat, the wood and concrete in building materials, and the rocks and soil.

Besides being a valuable research tool, radiation is also used by medical doctors to diagnose and treat many illnesses. Radiation is also found in household products like smoke detectors.

WHAT IS A RADIATION DOSE?

A radiation dose is an amount of ionizing radiation that is absorbed by your body. State and federal regulations limit the radiation dose to a member of the general public or a non-radiation worker to 100 mrem per year.

In comparison, the average background radiation dose to a person living in the U.S. is 360 mrem per year and a typical chest x-ray delivers a radiation dose of 10 mrem.

RADIATION LABORATORIES

There are many laboratories at this institution using radiation for research. They are identified by the radiation symbol on the door. Before performing any task in these laboratories, ancillary personnel should contact the lab supervisor or principal investigator.





RULES TO FOLLOW

There are minimal risks associated with working near sources of ionizing radiation. These risks are no greater than other common activities such as using power tools, climbing a ladder, or using electricity. By following these few basic rules, you can ensure your safety while working in areas posted with the radiation symbol.

1. Follow all room postings carefully.
2. Announce yourself and state your purpose when entering a lab.
3. If no one is present in the lab, contact the Principal Investigator or lab supervisor by calling the numbers listed on the door.
4. Ask the laboratory personnel to identify areas that should be avoided.
5. Do not handle anything labeled with the radiation symbol (unless directed by the lab supervisor, the principal investigator, or Radiation Safety Office).
6. Call the Radiation Safety Office at 543-0463 if you have any questions or concerns.
7. Leave the room closed and locked when unoccupied.



WHAT SHOULD I DO IF...

- there is an emergency?

If there is a personal injury or other major emergency (such as a fire), follow the normal emergency procedure and disregard any concern about radiation exposure. The potential of receiving any measurable radiation dose is minimal. After the emergency is over, evacuate the area and contact the radiation safety office for assistance.

- there is a spill?

If the spill is in a radiation laboratory or involves radioactive material, do not attempt to clean up the spill yourself. Secure the area and call the Radiation Safety Office or the contact listed on the door tag for assistance.

- I have to repair equipment?

You should never attempt to repair equipment with a radiation symbol unless it has been surveyed by the radiation safety office and declared free of radioactive contamination.

	<p>** Cleared ** Cleared ** Cleared ** For Moving / Repair / Surplus This item was examined by Radiation Safety On _____ By _____ Date Signature *** No radioactive material may be placed in or on this item until this sticker has been removed *** Refer questions to Radiation Safety at 206-543-0463</p>
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- I have to repair facilities?

All structures potentially contaminated with radioactive material are labeled with the radiation symbol. Notify the radiation safety office before repairing drains, air ducts or other structures labeled with the radiation symbol.



EMERGENCY PHONE NUMBERS

Call the Radiation Safety Office at
206-543-0463

Or dial 911



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Radiation Safety Office
203 Hall Health Center
Seattle, WA 98195

Phone (206) 543-0463

Fax (206) 543-9726

<http://www.ehs.washington.edu/rso/index.shtm>

RadSaf@u.washington.edu
