

ENVIRONMENTAL HEALTH & SAFETY

UNIVERSITY *of* WASHINGTON

EH&S GUIDE FOR PRINCIPAL INVESTIGATORS

DEVELOPED WITH SUPPORT FROM THE
UW SCHOOL OF MEDICINE

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EH&S GUIDE FOR PRINCIPAL INVESTIGATORS (PI GUIDE)

WHY READ THIS GUIDE?

This guide is an introduction to the Environmental Health and Safety Department (EH&S) for principal investigators (PIs) who are new to the University of Washington and is a reference tool for any principal investigator. It outlines your health and safety responsibilities as a PI and provides links to related resources. It lists related requirements for grant proposals, purchases and similar actions and outlines how to plan for emergencies and disasters.

As a PI, you are responsible for the workplace safety of everyone who works in your laboratory and for the requirements outlined in this guide. You may delegate safety-related tasks to others, but you retain ultimate responsibility. These responsibilities are outlined in [University of Washington Executive Order 55](#).

CONTACT INFORMATION

Web pages and contact information for specific issues are listed throughout this guide. See the [EH&S website](#) for a list of contact information by topic.

EH&S RESOURCES

EH&S offers training, consultation and information regarding laboratory safety. The [EH&S website](#) has a variety of safety information and resources. EH&S provides resources and guidance for researchers to stay safe and compliant with local, state and federal regulations and policies at all UW campuses and most UW owned or leased facilities. However, specific policies and procedures may vary by location.

TRAINING

As the PI, you are responsible for ensuring that all your staff are trained on the hazards they will encounter while working for you. EH&S provides classroom and online courses that address various types of hazards and regulatory requirements. Some courses are required. Almost all courses are free.

EH&S TRAINING WEBPAGE

Visit the [EH&S Training](#) page to see a list of current courses, register for classroom courses and complete online courses.

Use the [Training Course Selection Guides](#) to find courses that address job-specific hazards.

EH&S GENERAL LABORATORY TRAINING

The [UW Laboratory Safety Manual](#) outlines training required for you and your laboratory staff as well as other courses offered by EH&S. Guidance for training requirements is provided via the [Safety training for Lab Personnel matrix](#).

LABORATORY-SPECIFIC TRAINING

In addition to general courses taught by EH&S, all laboratory staff are required to have laboratory-specific training on the hazards they may encounter while working for you. This training is usually conducted by a PI, lab manager or chemical hygiene officer (CHO) and should also include training on your department's [Accident Prevention Plan](#) (formerly Department Health & Safety Plan) and your building or department's [Fire Safety and Evacuation Plan](#).

Laboratory specific training includes standard operating procedures (SOPs) for all hazardous materials and hazardous activities in the laboratory.

Training checklists are provided in Appendix C of the Laboratory Safety Manual.

NEW GRADUATE STUDENT SAFETY SEMINAR

At the beginning of each academic year, EH&S offers a Safety Seminar for new graduate students working in laboratories. New graduate students who will conduct research or teach in laboratories should attend. EH&S will send out registration information prior to the start of Autumn Quarter.

CHEMICAL SAFETY

If you use hazardous chemicals in your laboratory, you must have the following documents, appointments and practices to meet the minimum regulatory requirements:

CHEMICAL HYGIENE PLAN

If you use hazardous chemicals in your laboratory, state law requires that you have a Chemical Hygiene Plan that documents safe use and management of chemicals in your laboratory. The [UW Laboratory Safety Manual](#) fulfills most of this requirement. However, you must assess your actual procedures for the hazards they pose and add your laboratory-specific details to the plan, including floor plans and standard operating procedures (SOPs).

For more information on SOPs, see Section 6 and Appendix D of the Laboratory Safety Manual. [Sample SOPs](#) are available on our website.

CHEMICAL HYGIENE OFFICER

For more information, see Section 1.C.1 of the [Laboratory Safety Manual](#), Responsibilities – Responsible Party.

Each laboratory must have a designated Chemical Hygiene Officer who is knowledgeable about the laboratory's procedures, is actively involved or observant of those procedures performed, and has the authority to enforce correct procedures. In research laboratories, the Chemical Hygiene Officer is generally the PI. If the PI has other commitments that prevent knowledge of the laboratory's day-to-day activities and assigns another person to be the laboratory's Chemical Hygiene Officer, the PI is still considered the responsible party for the laboratory.

CHEMICAL INVENTORY (MYCHEM)

The University of Washington has [MyChem](#), an online chemical inventory system for you to record the identity, location and amount of chemicals in your laboratory. It is also a central library for material/[safety data sheets](#) (MSDS/SDSs).

MyChem inventories must be updated annually and after major changes in inventory. Contact information must also be current in case of emergency. You will need to [register](#) the first time you setup your inventory location. After registering, you can add and remove staff so they have access to your inventory locations.

CAUTION SIGN

Laboratories, shops and maker spaces where hazardous materials are use or stored are required to post an up-to-date [caution sign](#) at the entrance. This sign is intended to alert emergency responders and visitors of potential hazards and precautions for entry.

EH&S installs the sign holder. Occupants update signs as needed using the tool available on the [MyChem](#) menu.

STAFF ACCESS TO MSDS/SDS

Your staff have the right to access hazard information, usually in the form of MSDS/[SDSs](#), for the chemicals they use. Chemical inventories can be printed to view hazard information. Chemicals in inventory are also directly linked to the online MSDS/SDS. Anyone with a UW NetID can access all of the MSDS/SDSs in [MyChem](#) regardless if they have access to a specific lab's chemical inventory.

ACCESS TO SAFETY EQUIPMENT

Make sure you and your staff know where the emergency washing equipment is located and how to use it in an emergency.

Refer to Section Four of the [Laboratory Safety Manual](#) for information on emergency washing equipment. EH&S can evaluate the need for emergency washing equipment in laboratories UW facilities and assist with retrofit installations through the [Capital Safety Program](#).

HAZARD SIGNAGE

Hazard warning signs identifying health and safety hazards beyond the general lab hazard warning sign may be required based on the type of hazard present. Examples may include lasers, magnetic fields, and high voltage.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PIs, laboratory managers and shop supervisors are responsible for assessing all worksites for hazards and identifying the PPE needs for all employees, students and visitors who may be potentially exposed to the hazards.

Eliminate, substitute or design out exposure to hazards or hazardous operations, if possible. If not possible or feasible, the degree of hazard and engineering or administrative controls in place will determine what PPE is needed.

Laboratories should refer to the [Guidelines for Personal Protective Equipment \(PPE\)](#) and the [Laboratory Personal Protective Equipment \(PPE\) Hazard Assessment Guide](#) to determine the appropriate PPE for laboratory staff.

STANDARD OPERATING PROCEDURES (SOP)

If you operate a chemical laboratory as defined in [Washington Administrative Code 296-828](#), you must have standard operating procedures (SOPs) that describe the safety measures you require when using chemicals. Please see [Section 6](#) of the UW Laboratory Safety Manual for more information about SOPs.

EH&S provides online resources, such as [chemical SOP templates](#) and [SOP Required Elements Checklist](#) for your reference.

HAZARDOUS WASTE MANAGEMENT PLAN

Refer to Section 3 of the [Laboratory Safety Manual](#) to understand your responsibilities for managing hazardous chemical waste, including hazardous waste accumulation rules and [labeling waste containers](#).

EH&S provides [hazardous chemical waste disposal](#) for known chemicals. Information on [chemical treatment and recycling](#) can be found on the EH&S website.

RADIATION SAFETY

The Washington State Department of Health issues a Broad License and a radiation producing device registration to the University of Washington for the use of radioactive materials and all radiation producing devices. EH&S ensures compliance with the license conditions and can revoke authorizations if conditions are not met.

RADIOACTIVE MATERIAL USE AUTHORIZATION

Principal Investigators need an [authorization](#) to use radioactive materials. To request an application packet, contact EH&S's Radiation Safety team at radsaf@uw.edu or 206.543.0463.

RADIATION SAFETY TRAINING

Initial [radiation safety training](#) is required for all personnel using radioactive materials at the UW. A written exam must be successfully completed to satisfy the training requirements.

RADIOACTIVE MATERIAL MANAGEMENT

Regulations and procedures for the handling, storage and disposal of radioactive materials and sealed radioactive sources are in the [UW Radiation Safety Manual](#).

RADIATION PRODUCING DEVICES

All Radiation Producing Devices (RPDs) are regulated by the Washington State Department of Health and must be registered with the state through Radiation Safety office prior to use of the devices. The registration of RPD shall be accompanied by a fee equal to the appropriate facility fee and the category of use.

If you own a radiation producing device, such as an X-ray fluorescence (XRF), X-ray diffraction (XRD), dental radiography, veterinary radiography, accelerator, X-ray irradiator, electron microscope, medical fluoroscopy, radiography and other types of radiation producing devices, please contact Radiation Safety (206.543.0463 or radsaf@uw.edu) to set up your RPD registration and payment methods.

Additionally, PIs must ensure that all personnel under their supervision receive general radiation safety training and specific hands-on training for each radiation producing device. See [Radiation Producing Devices](#) for more information.

NON-IONIZING RADIATION

Radiation Safety has oversight responsibility for the use of laser and other types of non-ionizing radiation on campus to ensure these hazards are adequately controlled. The [Laser Safety Manual](#) and [Non-Ionizing Radiation Safety Manual](#) are available on the EH&S website.

The services provided by Radiation Safety include review of facility design plans, hazard assessments, consultation on laser control measures and training. Refer to the [Laser Safety](#) and [Non-Ionizing Radiation Safety](#) webpages for more information.

If your research involves a laser, the PI has the following responsibilities:

- [Registration](#) of all Class 3B and Class 4 lasers with Radiation Safety and updating the registration as needed, whether procured, loaned, fabricated, removed or disposed of at UW.
- Ensure that all personnel/users receive both the [EH&S Laser Worker Safety Training](#) and specific laser system training prior to initial work with laser.
- Enforcement of all laser safety requirements described in the [Laser Safety Manual](#), with particular emphasis on facility design (see [Laboratory Safety Design Guide](#)), laser protective eyewear, and [laser safety procedures](#), especially for beam alignment (see [alignment guidelines](#)).

If your research involves magnetic field, ultra violet, radiofrequency, and/or microwaves, the PI has the following responsibilities:

- Notify Radiation Safety (206.543.0463 or radsaf@uw.edu) of the potential non-ionizing radiation hazards in the laboratory. Non-ionizing radiation source examples:
 - Nuclear magnetic resonance (NMR) spectrometers, Magnetic Resonance Imaging (MRI);
 - UV transilluminator, crosslinker, UV germicidal lamps in biosafety cabinets, dental curing lights,
 - RF generating devices such as radio transmitters, wireless system transmitting signal at RF and MW frequencies, etc.
- Ensure that all personnel are trained and that they comply with all safety requirements.
- Provide engineering and administrative controls that will protect personnel from overexposure. This includes providing appropriate personal protective equipment (PPE) to employees, visitors and subcontractors.
- Ensure that all maintenance and repair work is performed only by qualified, trained individuals in a safe manner.

BIOLOGICAL SAFETY

EH&S is involved in research proposal reviews and approvals that involve biohazards and recombinant DNA, the use of biohazardous agents in animals and human gene transfer studies. EH&S also reviews facility design plans, provides consultation on laboratory containment and biohazardous waste, and delivers training for work with biohazardous agents, bloodborne pathogens (BBP), and select agents. For more information, see the [Biological Safety](#) webpages.

BIOHAZARDOUS AGENTS

The [Institutional Biosafety Committee's](#) working definition of a biohazardous agent includes:

- Pathogenic agents (e.g., bacteria, rickettsia, fungi, viruses, protozoa, parasites, prions and select agents)
- Recombinant or synthetic nucleic acid molecules, organisms, vectors (e.g., plasmids, viral vectors) and viruses containing recombinant or synthetic nucleic acid molecules
- Human and non-human primate blood, tissue, body fluid, and cell culture (primary or continuous)
- Plants, animals or derived waste which contain or may contain pathogenic hazards (including xenotransplantation tissue)

BIOLOGICAL USE AUTHORIZATION

If your research involves biohazardous agents, you must obtain [Biological Use Authorization](#) (BUA) from the Institutional Biosafety Committee. Institutional Biosafety Committee review and approval for research involving biohazards is required by the [NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules](#), [UW Administrative Policy 12.3](#) and the [UW Biosafety Manual](#).

If your research involves the use of biohazards in animals or human gene transfer, Biological Use Authorization is required prior to approval by the [Institutional Animal Care and Use Committee \(IACUC\)](#) or the [Institutional Review Board \(IRB\)](#).

PIs must review BUA letters with staff so that they are aware of hazards and approved use locations. See the [Biological Research Approval](#) page for more information including application submission deadlines.

RECOMBINANT OR SYNTHETIC NUCLEIC ACIDS

The National Institutes of Health (NIH) requires Institutional Biosafety Committee review of all research involving recombinant or synthetic nucleic acids. The Biological Use Authorization (BUA) addresses the NIH Office of Biotechnology Activities' directive that each PI working with recombinant or synthetic nucleic acids must identify the section of [NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules](#) that applies to their research. There are several different levels of oversight depending on the agents and procedures. See the [Biological Research Approval](#) page for more information.

BLOODBORNE PATHOGENS (BBP)

Employees who have a reasonably anticipated potential for exposure to bloodborne pathogens including human blood or other [potentially infectious materials \(OPIM\)](#) must be included in the UW [Bloodborne Pathogens \(BBP\) Program](#). PIs must do the following:

- Offer the Hepatitis B vaccine to staff within ten days of assignment into a job with reasonably anticipated exposure to bloodborne pathogens.
- Develop a written site-specific BBP Exposure Control Plan which is reviewed at least annually and updated as necessary. PIs must also train staff on the BBP Exposure Control Plan prior to initial start of work and then annually and ensure it is followed. A [BBP Exposure Control Plan Template](#) is available on the EH&S website.
- Ensure staff complete [EH&S BBP training](#) prior to initial assignment and every 12 months thereafter.

SELECT AGENTS AND DUAL USE RESEARCH OF CONCERN (DURC)

Select agents are biological agents and toxins that have the potential to pose a severe threat to public health and safety, to animal or plant health, or to animal or plant products. Work with select agents requires a federal security clearance and strict oversight by the Centers for Disease Control and Prevention and strict oversight, approval, and ongoing specialized training provided by EH&S. For more information, see the [Select Agent Program](#) information on the EH&S website. The University also has a [Dual Use Research of Concern \(DURC\)](#) policy in place for a subset of select agents.

CLINICAL TRIALS INVOLVING HUMAN GENE TRANSFER

The National Institutes of Health (NIH) require that the UW Institutional Biosafety Committee review and approve [human gene transfer](#) studies prior to initiation. The reviews are focused on protection of research personnel, research subjects, caregivers and the general public. The Institutional Biosafety Committee approval must precede Institutional Review Board approval granted by the [University of Washington Human Subjects Division](#). Both are necessary prior to subject enrollment. For more information about the NIH requirements for human gene transfer, see Appendix M of the [NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules](#).

BIOSAFETY TRAINING

[EH&S Biosafety Training](#) is required every three years for PIs whose research includes the use of biohazardous agents. It is also required for students, fellows, laboratory managers, research staff and any other staff who have the potential for exposure to biohazardous agents.

[Bloodborne Pathogens \(BBP\) Training](#) is required annually for all personnel who have the potential for exposure to bloodborne pathogens, human source materials, and other potentially infectious material.

BIOSAFETY CABINETS

Biosafety cabinets are certified annually by EH&S. If a biosafety cabinet fails the certification, it may not be used until repaired, unless specifically authorized by an EH&S biosafety officer. Biosafety cabinets may not be repaired or moved until decontaminated by EH&S. For more information, visit the [Biological Safety Cabinet page](#) on EH&S's website.

RESEARCH OCCUPATIONAL HEALTH

OCCUPATIONAL HEALTH REVIEWS

All animal protocols and protocols involving biohazards are evaluated to determine occupational health risks and mitigation, as well as medical surveillance and vaccination requirements for work with hazardous agents. This information is communicated to you in an Occupational Health Recommendations document (OHR) and/or Biological Use Authorization (BUA) issued by EH&S. PIs must review the information with personnel and make it available in the workplace. In addition, PIs must offer specified vaccinations and medical surveillance to personnel. The [UW Employee Health Center](#) provides these clinical services for UW employees who do not work in the medical centers.

ANIMAL USE MEDICAL SCREENING (AUMS)

Individuals who have contact with animals or conduct activities in animal care environments must participate in the [Animal Use Medical Screening \(AUMS\) Program](#). Participation in the AUMS Program is required prior to approval from the Institutional Animal Care and Use Committee to work in the laboratory animal research environment.

DIVING SAFETY

If your research involves SCUBA diving, it must adhere to the American Academy of Underwater Sciences Standards. All research diving and divers must be cleared by the Diving Safety Officer and adhere to the standards outlined in the [Scientific Diving Safety Manual](#).

BOATING SAFETY

The [Boating Safety Program](#) oversees the safe use of water vessels of all sizes and classes by faculty, staff, students and approved volunteers at the University of Washington who are using these vessels as required by their employment or education. The purpose of the Boating Safety Program is to:

- Ensure the personal safety of boat operators, crewmembers and occupants
- Maintain compliance with federal, state and local regulations
- Ensure environmental stewardship

There are federal, state, local and University requirements for safely operating boats that apply to both motorized and non-motorized vessels. The requirements are included in the [UW Boating Safety Manual](#). The UW Boating Safety Program is administered by the EH&S boating safety program manager and all vessels owned and operated by the UW fall under the program's purview.

PURCHASING AUTHORIZATION AND NOTIFICATIONS

New [fume hoods](#) and [biosafety cabinets](#) must be tested and certified by EH&S before use. See Section 2.C of the [Laboratory Safety Manual](#) for more information.

Please note that there are hazardous material quantities that may require the need for a space with hazardous occupancy designation per [fire department regulations](#). Such spaces may not be readily available or even possible in some UW research facilities. Contact the EH&S Building and Fire Safety team at 206.685.0341 if you plan to work with highly toxic, flammable or reactive chemicals.

SHIPPING HAZARDOUS MATERIALS

Hazardous materials include hazardous chemicals, infectious substances, radioactive materials, compressed gases, dry ice, liquid nitrogen, lithium batteries, aerosol cans and pressurized items. Training and certification are required to ship hazardous materials via land, air, or sea. There are prescriptive requirements for packaging and labeling of hazardous materials and for the associated documentation used in the event of an emergency. Training, certification, advice and packing materials are available through EH&S. Radioactive material is shipped by EH&S only. See the [Shipping Hazardous Materials web page](#) for more information.

Shipments may also be subject to Import/Export requirements. Information on these requirements and contact information can be found on the [UW Office of Sponsored Program website](#). EH&S must notify the U.S. Department of Homeland Security before you ship [certain listed substances](#).

RESEARCH GRANT PROPOSALS

Many research grants require institutional approval or periodic renewals prior to submittal or funding. In some cases, research cannot start until facilities, processes, and materials are reviewed and approved. EH&S administers several approval processes and should be contacted early to meet deadlines and avoid delays. See the [Office of Research website](#) for more information on grant review and administration.

The list of pre-approvals or requirements includes:

- [Biological Use Authorization](#)
- [Animal Use Project Review](#)
- [Clinical Trials Involving Human Gene Transfer](#)
- [Select Agent Registration](#)

EMERGENCY PREPAREDNESS

Be prepared for emergencies including natural disasters, utility failures and active threats. In particular, western Washington is in an earthquake zone. Earthquakes may cause power outages, significant damage to buildings, and physical harm.

To be prepared for emergencies, review your laboratory emergency flipchart and other response procedures with staff. See also the [EH&S Emergency Preparedness and Response](#) procedures. Be ready for all of appropriate types of emergencies to protect your staff and your research.

LABORATORY

Prepare your laboratory and staff for emergencies by doing the following:

- Post a UW Emergency Flipchart for Laboratories. Email ehsdept@uw.edu to request one.
- Post the [Exposure Response Poster](#) and the [Spill Response Poster](#) in all laboratory areas so you can be prepared to respond in the event of an accident, spill or exposure.
- Review Section 9 of the [Laboratory Safety Manual](#): Emergency Preparedness and Response. It outlines how to prepare for and respond to emergencies such as spills, fires, earthquakes, utility outages, gas leaks, unknown odors, and laboratory floods. The manual includes information on chemical spill kit contents, first aid kits, [eye washes](#), [safety showers](#) and more.
- Make sure your chemical SOPs include [chemical spill](#) and [exposure response](#) procedures specific to the chemicals and processes in your laboratory.
- If your research involves radiation, see Emergencies Involving Radiation in the [Radiation Safety Manual](#) for detailed response procedures for spills, injuries, and contamination involving radiation.
- If your research involves biohazards, see Section 6 of the [Biosafety Manual](#) for emergency preparedness and response procedures for hazards, including [biohazardous spill response](#).
- Maintain a current chemical inventory and emergency contact information in [MyChem](#).
- Train all of your staff on every applicable procedure outlined above.
- Plan ahead to protect your research in the event of a disaster that disrupts basic services or damages buildings such that they are unsafe for reentry.

CLASSROOM

During an emergency, faculty and teaching assistants in classrooms and teaching laboratories are responsible for their students. Refer to the [Classroom and Lecture Halls Emergency Procedures](#) or more information on evacuation and other classroom emergency procedures.

DEPARTMENT

[Accident Prevention Plans](#) lay the groundwork for preventing accidents and emergencies. Check with your department administrator to learn more about your department's Accident Prevention Plan.

[Fire Safety and Evacuation Plans](#) are written at the building or department level and contain general planning guidelines for emergencies and evacuation procedures. Ask your administrator for your copy. Train all laboratory staff on emergency procedures, evacuation routes and evacuation assembly points.

UNIVERSITY

[UW Emergency Management](#) develops and implements institution-wide programs and projects for disaster planning, training, mitigation, response, prevention, business continuity and recovery.

EXPOSURE RESPONSE AND ACCIDENT REPORTING

For biological, chemical or radiological exposures, follow the instructions on the [Exposure Response Poster](#).

Report all work-related injuries, illnesses, and near misses using the [UW Online Accident Reporting System \(OARS\)](#) within 24 hours of the incident. In the case of a serious or fatal accident or hospitalization, notify EH&S as soon as possible after obtaining emergency care.

- Call 9-1-1 for emergencies.
- During business hours, call EH&S at 206.543.7262.
- Outside of business hours, at all UW locations, call the UW Police Department Dispatch at 206.685.8973 who will contact an EH&S on-call staff member.

DESIGNING/REMODELING A LABORATORY

If you are constructing a new laboratory or modifying an existing one, refer to the [EH&S Laboratory Safety Design Guide](#), which outlines requirements and recommendations for new and remodeled laboratories.

At most locations, [UW Facilities and/or Engineering Services](#) must be hired for alterations of laboratory and building infrastructure. This especially includes projects that affect electrical systems, plumbing or air balancing. New [fume hoods](#) and [biosafety cabinets](#) must be certified by EH&S before use, and this equipment must be chosen from the approved list on the EH&S website.

MOVING INTO OR OUT OF A LABORATORY

See Appendix E of the [Laboratory Safety Manual](#) for a checklist of health and safety requirements for starting up or moving into a new laboratory. Use the checklist as early as possible; some items should be completed weeks or even months in advance of your move. The checklist includes the [Notice of Laboratory Moveout Form](#) that must be filled out, signed, and posted on the door before you leave.

If biohazardous agents are being moved to a different location, including a new room in the same area, submit a [BUA Change Application](#) to update your Biological Use Authorization Letter.

RECORDKEEPING

Health and safety recordkeeping requirements are summarized in the [UW General Records Retention Schedule](#). See also the following guidance as applicable:

- [Biosafety Manual](#) Appendix D
- [Laboratory Safety Manual](#) Section 8: Recordkeeping
- [Radiation Survey Records](#)
- [Radiation Instrument Calibration](#) Records

ROLE OF EH&S DEPARTMENT

EH&S communicates health and safety regulations to UW employees and also provides many services related to health and safety.

EDUCATION AND OUTREACH

EH&S provides classroom and online courses available at the [EH&S Training](#) web page. To receive regular updates about safety information and resources at the UW, subscribe to the [EH&S newsletter](#). See the [safety manuals](#) on the EH&S website for a variety of other resources.

AUDITS AND SURVEYS

EH&S does routine audits of laboratory and research spaces for general safety, fire safety, radiation safety, and Biological Use Authorizations. A general laboratory self-audit checklist is in Appendix E of the [Laboratory Safety Manual](#). Biosafety laboratory inspection checklists are available online at [Biological Research Safety](#).

CONSULTATION

EH&S provides consultation regarding laboratory safety, including issues such as ventilation, exposure control, chemical storage/use, and waste management.

PREVENTIVE HEALTHCARE SERVICES

The EH&S [Employee Health Center](#) provides clinical preventive services and post-exposure case management for specific employee groups with occupational risks. As with all health and safety issues, PIs have the ultimate responsibility for ensuring research personnel receive required preventive healthcare services and have information about post-exposure case management services.

SERVICES PAID FOR BY INDIRECT COSTS

The majority of EH&S services are funded through indirect costs, including:

- Safety training courses (except First Aid Training)
- Hazardous chemical waste collection and disposal
- Health and safety surveys and compliance monitoring
- Assistance meeting health and safety requirements of grant proposals
- Radiation use authorizations
- Radiation dosimetry and bioassay
- Fire prevention services
- Fume hood testing
- Central MSDS/SDS library and inventory system
- Respiratory fit-testing
- Spill response advice

- Medical testing and case management related to an occupational exposure

SERVICES PAID FOR BY RECHARGE

Some specialized EH&S services are funded by direct recharging to research budgets, including:

- Radioactive waste disposal and radiation instrument calibration
- Biosafety cabinet decontamination and certification
- Contract costs associated with hazardous material spills or improper waste disposal
- Analysis of unknown chemicals and deactivation of unstable chemicals
- First Aid Training and Certification
- Medical surveillance including labs tests or vaccinations
- Occupationally required vaccinations and medical surveillance

LIASON WITH REGULATORY AGENCIES

EH&S is the UW liaison with government agencies regulating environmental and occupational health and safety issues. See [UW APS 10.2](#) for more information. If a regulatory agency inspector arrives to initiate an inspection, contact EH&S at 206.543.7262 to ensure proper notifications and to assist with the inspection.