

University of Washington
Department of Earth & Space Sciences
HEALTH AND SAFETY PLAN

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A. INTRODUCTION

1. Scope

The policies and procedures described here apply to all employees of the Department of Earth & Space Sciences, University of Washington, referred to as the Department. Employees may fall into one of more of the following site-specific safety categories: Office workers, Instructors and lecturers, Principal Investigators (PIs), laboratory workers, Teaching Assistants (TA's), and Research Assistants (RA's).

2. Health and Safety Policy

The aim of this Health and Safety Plan is to provide a safe, healthful, and efficient work environment for all, including faculty, staff employees, students, and visitors to the Department.

3. Responsibility

The Department Chair, Supervisors and Principal Investigators are responsible for maintaining safe work practices in their respective domains, including required health and safety training.

The Department requires all employees to comply with health and safety regulations, with departmental policies and procedures that apply to their own conduct on the job, and to report accidents, injuries, and unsafe conditions to their supervisor. It additionally requires all staff, faculty, and TAs to take first aid/CPR training every two years.

4. Health and Safety Coordinator

The chair of the Department's Health and Safety Committee is the designated Health and Safety Coordinator for the department and has been given adequate authority to carry out the following responsibilities:

- Auditing compliance with this Health & Safety Plan
- Updating this Plan, at least annually
- Coordinating with Environmental Health & Safety
- Working with supervisors and employees to resolve safety complaints
- Keeping safety bulletin boards current
- Maintaining safety records
- Keeping the department head aware of current safety concerns

B. FUNDAMENTALS

The following seven fundamental health and safety items apply to all employees of the Department.

1. New Employee Safety Orientation

It is the responsibility of Faculty, Staff, and P.I.'s to ensure that all new employees under their supervision, including those that are permanent, temporary, or part-time, complete the Departmental New Employee Safety Orientation. This must be completed within the first week of employment and the completed form filed in department records.

2. Emergency Evacuation and Operations Plan (EEOP)

The Department has developed procedures for evacuation in an emergency and for response to fires, bomb threats, chemical spills, earthquakes, etc. The EEOP may be obtained from the Departments home page, or from the Department office. All employees must be trained in the EEOP.

The fundamentals of the EEOP are summarized below:

a. Building Floor Plans

On all floors of Johnson Hall, floor plans to show safety equipment and exit pathways are mounted on the walls at the entrance to all elevators and stairwells. Do not use elevators in an emergency evacuation situation. The floor plans show the location of fire extinguishers and fire alarm pulls. There are also signs marking these locations in the hallways.

b. Evacuation Procedures

- The alarm signal to evacuate the building is a slow “whooping” sound accompanied by flashing strobe lights.
- Instructors, laboratory and teaching assistants must be familiar with the detailed evacuation procedure for their classroom and feel comfortable directing the students under their control. Full details may be found in the EEOP.
- Exit the building via the emergency exit doors and stairwells. The last person leaving the office/work space should close the door.
- Follow the instructions of the floor wardens who can be identified by their lime-colored hats and clip boards.
- Proceed to the evacuation assembly points (see below)
- NOTE: in the special case of an **earthquake** the building emergency alarm is unlikely to function. Do not evacuate the building until the shaking has stopped. Seek cover under desks or tables if available. Instructors, laboratory and teaching assistants should reassure and advise their class on the correct response. If there are no tables (i.e. in a lecture theatre) students should be instructed to **drop** to the floor, **cover** their head, and **hold that position**. Once the shaking has stopped students should be instructed to evacuate the building according to the instructions above. Emergency Detailed procedures for Faculty, Lecturers, and Teaching Assistants may be found at: <http://www.ehs.washington.edu/fsoemerprep/instructorprocedures.pdf>

c. Evacuation Assembly Points

There are two evacuation assembly points. These are shown on the building floor plans, displayed near the stairwells and exit points. The plan at the exit point will indicate the appropriate assembly point.

d. Methods for Accounting for Staff, Students, and Visitors

- Evacuation assembly points are controlled by the appropriate floor warden. Identify yourself to the floor warden (wearing a lime-green cap) and follow their instructions.
- If you have a visitor ensure that the visitor accompanies you during the evacuation procedure.
- Instructors, laboratory and teaching assistants should ensure that their class remains together as a group and work with the students to ensure that all are accounted for.
- Remain at the assembly area unless instructed by an official. **Do not reenter the building until the all-clear is given by the Floor Wardens when that is declared by the Fire Department.**

e. Mobility-Impaired Occupants

Give all reasonable assistance to mobility-impaired occupants of the building. Inform the Fire Department of the person's needs and whereabouts.

3. Accidents

a. Medical Emergencies

All medical emergencies must be reported to the nearest Emergency Medical Services (EMS). To do this, **Dial 911 from Campus phones** and remain calm, state the nature of the emergency. Answer all questions asked by the emergency dispatcher.

b. Reporting Accidents and Incidents

All accidents and near misses must be reported to the employee's supervisor as soon as possible. Near misses are valuable opportunities to correct unsafe situations. The University provides a report form which includes provision for the supervisor's comments and signature. This form can be found and filled out at the Online Accident Reporting System (OARS) <http://www.ehs.washington.edu/ohsoars/index.shtm>. The Department Administrator, listed on the "Back Page" of this document, must also be apprised of the accident or incident.

c. Investigation

All accidents and near accidents must be investigated by the supervisor who then summarizes the details and corrective measures in the above report. EH&S and the Department's Health & Safety committee review the report. Assistance from EH&S is available by calling 206-543-7388.

4. First Aid and CPR Access

First aid kits are located in the main office, JHN 070, in the offices of the floor wardens, and in all teaching labs and research labs. The names of the floor wardens and the locations of their offices are listed on the "Back Page" of this document.

5. Safety Problems: Reporting and Resolving

Employees are encouraged to report safety concerns to their supervisor. If employees do not feel they can do this, or have done so and do not feel the problem has been resolved, they may discuss the situation directly with their Health & Safety coordinator or committee representative.

6. Safety Meetings

The department Health & Safety Committee meets each quarter. The names and phone numbers of current committee members may be found on the "Back Page" of this document. The committee welcomes feedback and suggestions from all members of the department.

7. Safety Bulletin Board

The departmental safety bulletin board is used for posting safety-related information. The department safety bulletin board is located across from JHN 065 lift.

C. ACCIDENT PREVENTION

1. Continued Training

The table on the next page may be used to identify hazards and reduce accidents. Employees should use the table to identify potential hazards in their work space and consult with their supervisors for appropriate action or training classes. Supervisors should ensure that their employees' training is current. Information on training classes available can be found at <http://www.ehs.washington.edu>.

Check All That Apply	Typical Worksite Safety Issues To Address	Offices	Class-rooms	Hosp. / Clinics	Labs	Shops
	Applies: A=Almost Always, B=Commonly, C=May Apply, Blank=Rarely Applies					
X	Emergency Procedures: Fire, Other (EEOP)	A	A	A	A	A
X	Earthquake Preparedness	A	A	A	A	A
X	Housekeeping Hazards	A	A	A	A	A
X	Slip/Trip Hazards	A	A	A	A	A
X	Electrical Equipment & Wiring	A	A	A	A	A
X	Emergency Escapes (Egress) Maintained/Unlocked	A	A	A	A	A
X	Obstruction-Free Aisles	A	A	A	A	A
	Stacks of Stored Materials (Stable/Secure)	A	A	A	A	A
	Temperature Extremes: Heat/Cold Stress	A	A	A	A	A
	HazCom Right-To-Know (Written Program In Place)	A	A	A	A	A
	Air Contaminants, Dusts, "Inert" Gases, Vapors	A	A	A	A	A
X	Asbestos (Present or Handled)	A	A	A	A	A
	Lifting >20 lbs.	A	A	A	A	A
	Repetitive Motion, Ergonomics	A	B	A	A	A
	Motor Vehicles	A	A	B	B	A
	Hand or Portable Power Tools	B	B	A	A	A
	Ladders	B	B	A	A	A
	Knives or Cutting Blades	B	C	A	A	A
	Compressed Gas or Equipment		A	A	A	A
	Hazardous Waste	C	A	A	A	A
	Haz-Mat Spills: Operations, Emergency Response		A	A	A	A
	Hazardous Materials Stored/Shipped/Transported	C	B	A	A	A
	Laboratory Chemicals		B	A	A	A
	Radioactive Materials Used or Stored		A	A	A	
	Personal Protective Equipment (PPE)	C	B	A	A	A
	Respirator Protection, Workplace Evaluations		B	A	A	A
	Bloodborne Pathogens/Biohazards/Infectious Waste		B	A	A	B
	Welding, Cutting, Brazing		B	A	A	A
	Machinery (Machine Guards)		B	B	A	A
	Lock-Out/Tag-Out		C	A	B	A
	Confined Work Spaces / Oxygen-Deficiency			A	C	C
	Steam or Autoclaves		C	A	A	
	Lasers or UV Light		C	B	A	A
	Flammable Liquids (Handled or Stored)		C	B	A	A
	Formaldehyde (Handled or Stored)			B	A	C
	Carcinogens			B	A	A
	Lead or Benzene (Handled or Stored)			C	A	A
	Animals (Handled or Kept)		C		A	
	Loud Noise				A	A
	Vibration From Tools/Machinery				A	A
	Heights > 4 Ft. (Possible Falls)	C	C	C	A	A
	Cranes, Hoists, Derricks, Rigging		C	C	A	A
	Powered Platforms (Personal Lifts)		C	C	C	A
	Forklifts				C	A
	Scaffolds		C	C	C	B
	Excavation, Trenching or Shoring Activities					
	BBQs					
	Food Handling			C		
	Diving					

2. Chemical Inventory, Laboratory Safety System, and Emergency Contacts

It is the responsibility of all supervisors and P.I.'s to ensure a safe work place. This includes offices, classrooms, laboratories, and shops. Where appropriate, Laboratory Safety Manuals should be maintained. Maintenance and inspection of equipment must be carried out according to schedule. Appropriate personal protective equipment must be provided. Where appropriate, "Standard Operating Procedures" (SOP's) should be applied. Copies of the SOP's should be maintained in the Laboratory Safety Manual.

Laboratories with supplies of chemicals must maintain a Laboratory Safety System (LSS) and a current Emergency Package listing all knowledgeable staff with emergency contact numbers on the door of their laboratory. No employees or students may use lab equipment, chemical inventory, radioactive isotopes, or access cryogenic supplies unless they have received the appropriate training.

3. Safety Maintenance Work

P.I.'s and laboratory supervisors should consult the Laboratory Safety Survey Checklist which may be obtained from the EH&S web site. The P.I. of each lab must certify annually that maintenance work has been done by completing the "Principal Investigator Certification of Laboratory Safety Maintenance" form and filing this with the main office.

D. DOCUMENTATION

1. Record Keeping

P.I.'s should keep a copy of all employee training, Standard Operating Procedures, Chemical Inventory, and other safety information relevant to their lab as a part of their laboratory safety manuals.

In compliance with State requirements, our department maintains records of safety activities. These records include:

- New Employee Safety Orientation records
- Incident/accident reports
- Safety Inspection records
- Training records
- P.I. Certification of Laboratory Safety Maintenance record.
- Copies of department safety plans, forms, meeting minutes etc.
- Names of key safety personnel and other useful information. These records are located in the Departments main office and are updated annually. For more information please contact the Department's main office.

2. Applicable Policy and Laws

For further information on laws and University of Washington policies that apply to laboratory, shop and office safety, consult the following sources:

- Washington Administrative Code, Chapters 29624, 29662, 296800
- Seattle Fire Code
- UW OPS Manual
- UW Environmental Health and Safety www.ehs.washington.edu
- OSHA, WISHA
- EPA
- PSCAA (Puget Sound Clean Air Agency)

- Metro & King County
- Board of Health (Radiation Safety)
- Your safety committee chair

**Principal Investigator
Certification of Laboratory Safety Maintenance**

I, _____ (Print PI Name) certify that the following safety maintenance tasks have been completed for laboratory _____ (Room Number) for the year _____. I recognize that I bear responsibility to ensure safe laboratory practice in this lab.

Initial each item certifying completion:

Laboratory Safety System Chemical Data is current for my lab. Material Safety Data Sheets (MSDS's) are available for all chemical in my lab. All lab employees are able to access to MSDS's at all times.

All chemicals are clearly labeled and stored appropriately.

Spill cleanup and first aid kits are available and restocked. Appropriate personal protective equipment is easily accessible to all employees.

Gas cylinders are secured and are being used in a safe manner.

Laboratory procedures are documented and have been reviewed for safe practice.

Employee safety training has been reviewed and training is appropriate for their current job duties.

All chemical and radiation safety practices have been reviewed and updated where appropriate.

I recognize that this list is not comprehensive and a full review of all safety practices is my responsibility alone.

I recognize that safety consultations and questions can be addressed through EH&S at (206) 543-7262.

The Department encourages the P.I. to conduct periodic reviews of lab safety using EH&S's Laboratory Safety Survey Checklist available at: <http://www.ehs.washington.edu/forms/index.shtm>

By signing below, I certify that my laboratory is in compliance with University of Washington mandated safety procedures.

Signed: _____(Principal Investigator)

Print: _____

Date: _____

Return completed form to the Department Office.

“The Back Page” (Useful Information)

Department: Earth & Space Sciences
Main Office: Room 070 Johnson Hall
(206) 543-1190, Fax 206-543-0489
<http://www.ess.washington.edu/>

Department Administrator: Sue Bernhardt
Room 070A
206-543-0384
suejoi@u.washington.edu

Last Updated (date/person): June 17, 2014 / April Huff (EH&S Committee Group #10 Rep)
Health and Safety Coordinator: Bill Steele
Room 146 Atmospheric Sciences/Geophysics (ATG)
(206) 685-5880
steele@ess.washington.edu

Departmental Health and Safety Committee members:

Chair: Bill Steele Office: ATG 146 685-5880
Sue Bernhardt (info below)
April Huff Office: JHN 070H 685-2470
Mike Harrell (info below)
Mike McCarthy (info below)
Dave McDougall Office: JHN 047 543-9633
Scott Kuehner (info below)
Student representative: TBA

Floor Wardens: For a complete list see the Emergency Evacuation & Operation Plan (EEOP)

FLOOR	NAME	JHN OFFICE #	PHONE #
Ground	Sue Bernhardt	070A	543-0384
First	Mike Harrell	051	543-0367
Second	Michael McCarthy	261	685-2543
Third	Nathan Briley	045	685-3398
Fourth	Scott Kuehner	425	543-8393

EH&S Phone Numbers

See EH&S web-site at www.ehs.washington.edu. Click on “Phones.”