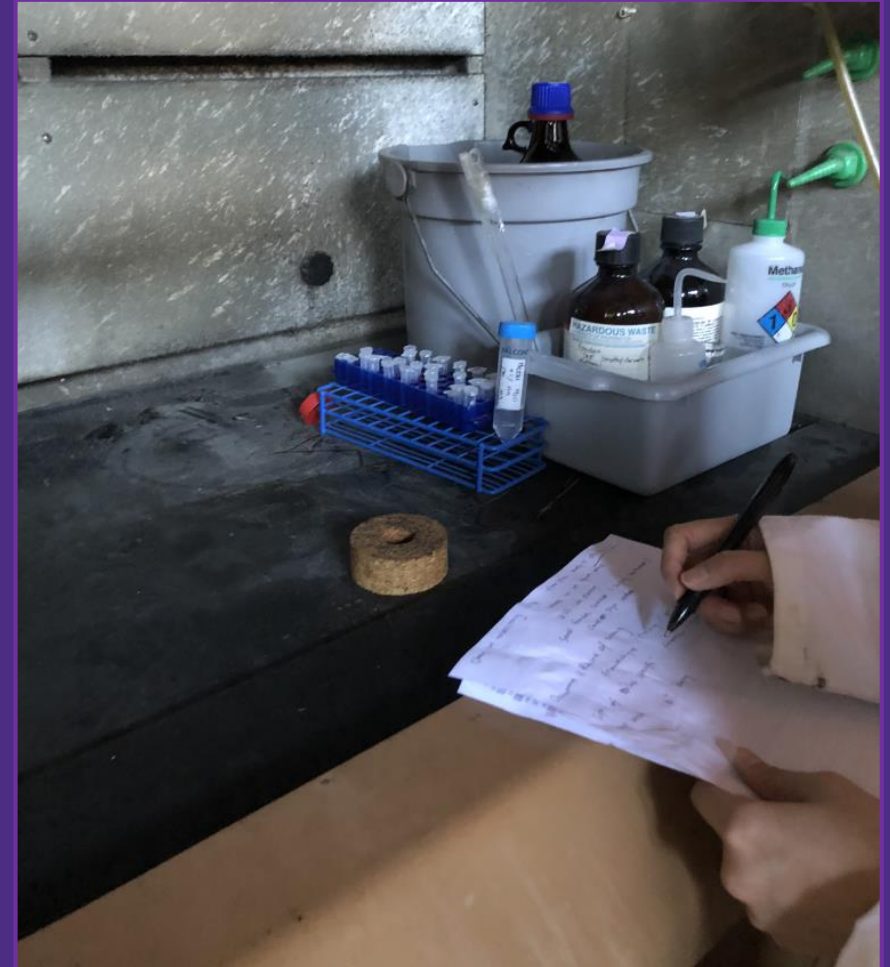


UW LABORATORY SAFETY PROGRAM

LABORATORY SELF- INSPECTIONS

Alex Hagen
Lab Safety Specialist



TODAY'S DISCUSSION

- **Reasons for self-inspections**
- **How to conduct self-inspections**
- **New self-inspection tool from EH&S**
- **Ways to customize the self-inspection process**



REASONS FOR SELF-INSPECTIONS



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REGULATIONS & POLICY

- OSHA regulations and Washington Administrative Code (WAC 296-800)
- Requirement stated in the Lab Safety Manual (UW policy document); part of the Chemical Hygiene Plan



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LABORATORY SAFETY MANUAL

OUTCOMES

- Different insights from EH&S inspections
- Routine review of safety practices and trainings
- Verification that lab policies and practices are being maintained and followed
- Confirmation that changes made have been sustained and are working well
- Incorporation of new personnel, equipment, activities, and hazards



HOW TO CONDUCT SELF-INSPECTIONS



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TIMING

- **Minimum requirement is to conduct inspections annually**
 - Increase if you have frequent turnover, visiting researchers, student projects, multiple or new hazards present
- **Conduct at least several months before or after your EH&S lab safety survey**
- **Complete all components of the inspection in a timely manner (max. 3 days)**



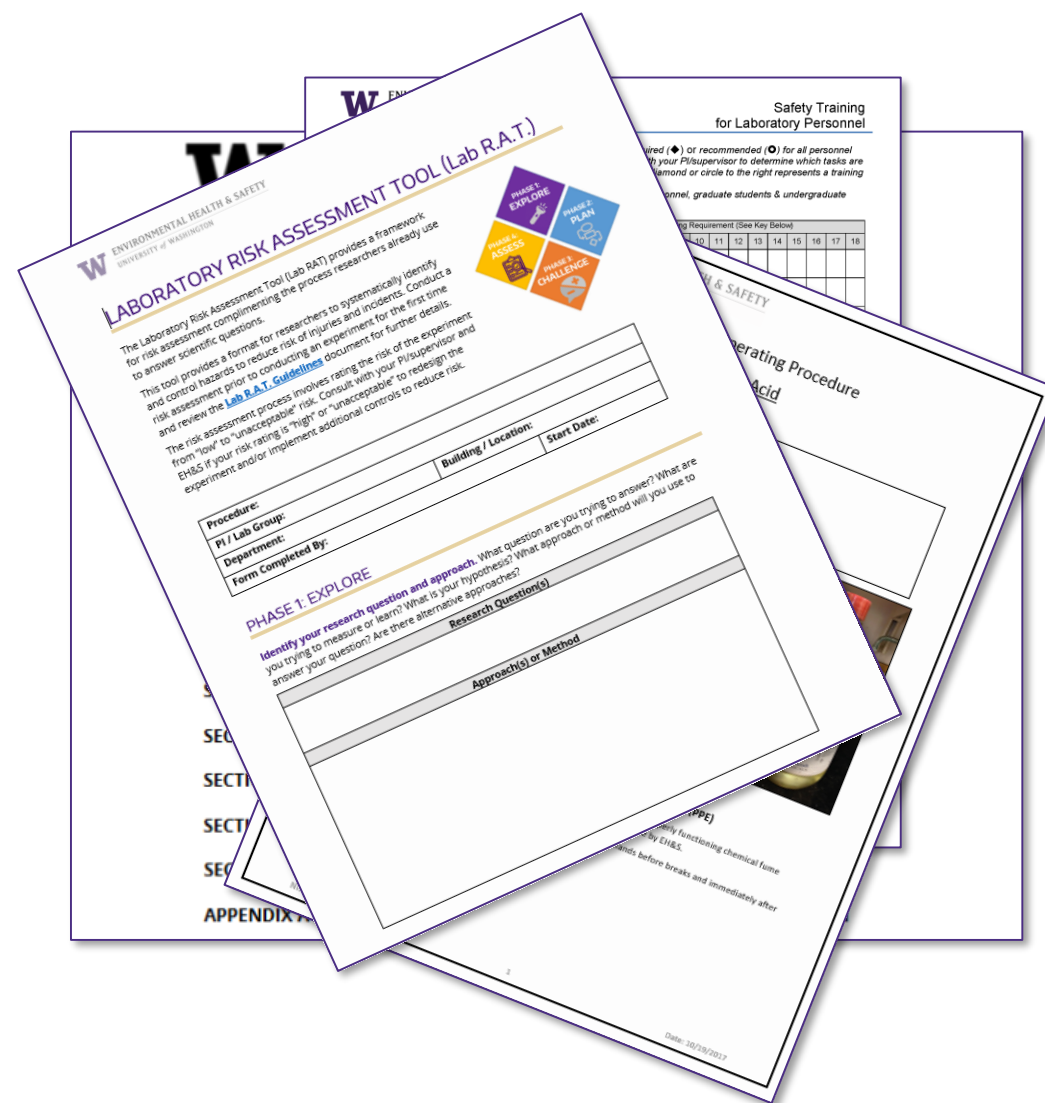
DOCUMENTATION PRACTICES

- Retain records of self-inspections
- Electronic or paper format is acceptable
- Record items checked and findings
- Record dates of self-inspection
- Record corrective actions for each finding and dates of completion



TOPICS TO INCLUDE: CHEMICAL HYGIENE PLAN

- Lab safety manual is current and accessible to all lab members
- Trainings are current and documented
- SOPs are complete and accessible
- PPE and hazard assessments are completed and have been reviewed
- Authorizations for hazardous materials and practices are in place



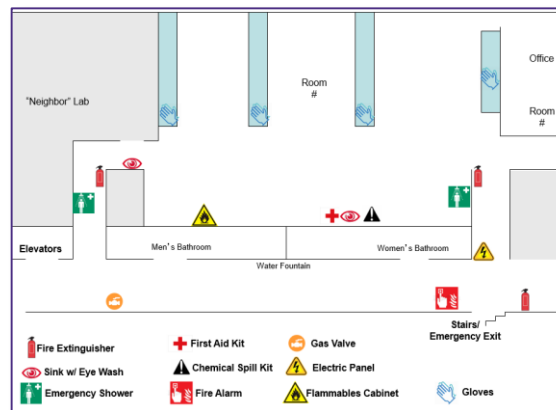
TOPICS TO INCLUDE: PPE

- PPE practices have been assessed for all activities
- Documentation that all lab members have been trained
- PPE practices are followed by all
- Adequate PPE is provided and maintained



TOPICS TO INCLUDE: GENERAL SAFETY

- Lab policies are established and documented
- Documentation that lab members have been trained
- Lab policies are followed by all
- Emergency procedures and floor plans are posted
- Food and drink are not consumed in the lab



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SPILL RESPONSE

CALL 911 FOR ANY LIFE THREATENING EMERGENCY
IF EXPOSED, FOLLOW THE EXPOSURE RESPONSE POSTER

S.W.I.M. FOR ALL SPILLS

S: Stop the spill. Cover with absorbent material.
W: Warn others. Alert people in the immediate area of the spill.
I: Isolate the spill and secure the area. Close doors if possible.
M: Minimize your exposure by wearing PPE and avoiding contact, inhalation or ingestion. Vacate the area if necessary. Wash hands after handling spill materials.

RADIOLOGICAL SPILLS

- Utilize time, distance and shielding to prevent exposure.
- Cover with absorbent material.
- Wear gloves and use tongs/scoop to collect contaminated material as radioactive waste.

Call UW Radiation Safety at 206-543-0463. If office closed, call 911. Notify your supervisor.

CHEMICAL SPILLS

- Only trained personnel who are familiar with the chemical's hazards should clean spills if they have the appropriate clean-up supplies and personal protective equipment (PPE). Staff need to be able to protect themselves from skin, eye and respiratory system exposures during a spill clean-up.
- If clean-up involves risk of exposure or injury, EH&S can arrange for a hazardous spill clean-up contractor at the lab's expense.

EH&S chemical spill assistance is available 24/7. During business hours (Monday-Friday 8 a.m. to 5 p.m.), call 206-543-0467. If closed, call 206-685-UWPD (8973) to reach EH&S staff on call.

BIOHAZARDOUS SPILLS

- Cover the spill with paper towels or absorbent material.
- Pour freshly prepared 10% bleach around the spill and allow to flow into spill.
- After 30 minutes of contact time, wipe up and dispose of as biohazardous waste.
- Repeat procedure.

If spill contains recombinant nucleic acids, notify EH&S Biosafety as soon as possible at 206-221-7770.

Report all spills within 24 hours via UW OARS: <https://oars.ehs.washington.edu>

September 2019 www.ehs.washington.edu

University of Washington Division of Pulmonary and Critical Care Medicine
Laboratory Policies and Facility Use Agreement

This Facility Use Agreement (Agreement) is between the University of Washington Division of Pulmonary and Critical Care Medicine (PCCM) and the user identified below ("LAB USER"), who is either a PCCM fellow or faculty member approved to use this resource or is doing a research project in direct collaboration with an approved PCCM fellow or faculty member. This Facility Use Agreement is regarding the LAB USER's use of the shared laboratory space in the University of Washington Health Sciences Center, 190015 xxxxxx and xxxxxx at 1959 NE Pacific St., Seattle, WA 98195. The xxxxx laboratory space is dedicated for use by PCCM and is overseen by laboratory director, Dr. xxxxx. (xxxxx@uw.edu, xxx-xxxx).

Laboratory Policies:

- The LAB USER assumes responsibility to plan and perform work in such a way as to ensure his/her own personal safety as well as the safety of others using the Facility.
- The LAB USER will perform all research activities in such a way as to not interfere with the work of other lab users.
- The LAB USER will obtain training on proper use of the laboratory equipment and will complete all required lab safety or other required training before using the laboratory.
- The LAB USER is responsible for his/her own research success and integrity and is required to obtain and maintain all proper Institutional Review Board approvals and required training in Human Subjects Research.

Fees: There is no fee for use of the laboratory space, however the LAB USER is responsible for the costs of all materials and supplies used in the lab and may be responsible for costs of repairing laboratory equipment damaged due to the LAB USER's use of the laboratory space at the discretion of PCCM administration and the lab.

Limits on permitted behavior: Permitted behavior is required at all times. Access to xxxxxx is not permitted for any other purpose than that specified in the Facility Use Agreement, has completed and has completed the necessary Lab Safety training and has completed all necessary compliance with required

ENVIRONMENTAL HEALTH & SAFETY
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EXPOSURE RESPONSE

CALL 911 FOR ANY LIFE THREATENING EMERGENCY
for biological, chemical, or radiological exposures

1. PERFORM FIRST AID

Eye exposure - Use emergency station to flush eyes for 15 minutes with warm water and holding eyes open.
Skin exposure - Biohazard: Survey skin and wash until the count rate cannot be reduced further. Stop if skin becomes irritated.
Chemical - Wash with tepid water for 15 minutes.
Hydrofluoric acid - Wash for 5 minutes, then apply calcium gluconate gel to skin.
Biological - Wash with soothing soap and water for 15 minutes.
Inhalation or ingestion - Do not induce vomiting unless instructed to do so.
Radiological - Blow nose into clean tissue and survey for contamination.

2. GET MEDICAL HELP

Biological exposure - Call Radiation Safety at 206-543-0463. Call 911 if office closed or emergency.
Chemical exposure - Provide the radiological estimate of amount and time since exposure.
Emergency - Call 911 and follow the instructions given.
Biological and Chemical - Provide the chemical name, concentration, time since exposure and Call the Employee Health Center at 206-685-1026.
Exposures: Harborview call 206-244-2081. If closed, call 911 and follow the instructions given.

3. REPORT THE INCIDENT

Notify your supervisor. Secure the area before leaving.
Call the EH&S main phone line at 206-543-7262. If closed, call 206-685-UWPD (8973) to reach EH&S staff on call.
Submit a report via the UW Online Accident Report (OARS) within 24 hours at <https://oars.ehs.washington.edu>

www.ehs.washington.edu

TOPICS TO INCLUDE: CHEMICAL MANAGEMENT

- Chemical inventories are accurately listed in MyChem
- Caution signs are generated from current inventory and posted at all entrances
- All chemical containers are in good condition and stored appropriately
- Old and unused chemicals have been removed from the lab



CAUTION
ADMITTANCE TO UW AUTHORIZED PERSONNEL ONLY

INFORMATION FOR FIRST RESPONDERS

BIOHAZARD **RADIOACTIVE MATERIALS** **COMPRESSED GAS**

ENTRY REQUIREMENTS

NO FOOD OR DRINK IN LABORATORIES **EYE PROTECTION**

PROTECTIVE CLOTHING **OCCUPATIONAL HEALTH**

Chemical hazards in quantities that require a SFD permit

Corrosive
Corrosive Gas
Cryogenic, inert liquid
Flammable liquid, Class II
Highly Toxic
Irritant
Oxidizer Gas (Aqueous)
Toxic Gas
Water Reactive, Class 3

SFD Permit # 123456

Date Permit: 12/02/2011
Building: ENY SAFETY OFF BLD
Room: 201

EMERGENCY DIAL 9-1-1
for Fire, Police, Rescue, and Medical Emergencies

Contact	Name	Title	Department	Work Phone
Dept.	John Doe	Administrator	General Science	206 543-2122 425 898-1234
Lab	Jane Doe	Principal Investigator	General Science	206 543-3333 206-543-3356
Lab	Todd Lincoln	Lab Technician	General Science	206 543-6666
Lab	Mary Lincoln	Lab Technician	General Science	206 221-1234

Environmental Health and Safety

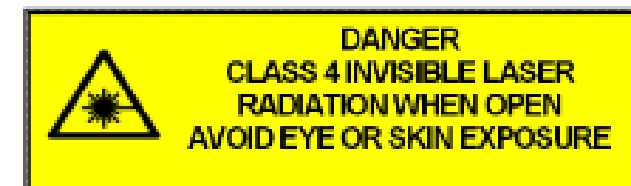
TOPICS TO INCLUDE: HAZARDOUS MATERIALS

- First aid and spill kits are provided in all locations needed
- All hazards are appropriately labeled and stored – chemical, biological, radiological, physical
- Hazardous waste is appropriately labeled and contained
- Hazards are included on Caution Signs



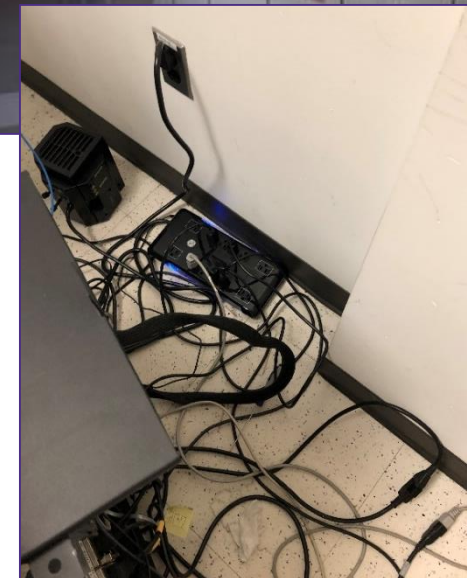
Chemical	%	Black out non-applicable hazards

Name of Researcher: _____ Date: _____



TOPICS TO INCLUDE: EQUIPMENT

- Lab equipment is in good condition
- Ventilation equipment is maintained and used properly (ie. fume hood practices)
- Equipment with physical hazards are properly guarded and secured
- Electrical safety practices are followed
- Emergency equipment (eyewashes, showers, fire extinguishers) is easily accessible



TOPICS TO INCLUDE: HOUSEKEEPING

- Work spaces are clean and uncluttered
- Storage spaces (eg. freezers, cold rooms) are well organized
- Waste streams are appropriately managed
- No legacy items
- Aisles and exits are clear



HAZARDOUS WASTE	
UNIVERSITY OF WASHINGTON ENVIRONMENTAL HEALTH AND SAFETY (206) 685-5835 UoW 1157 (4/06)	
CHEMICAL COMPOSITION AND ASSOCIATED HAZARD(S)	%
<input type="checkbox"/> Corrosive <input type="checkbox"/> Reactive <input type="checkbox"/> Other (explain)	
<input type="checkbox"/> Non-Hazardous <input type="checkbox"/> Toxic	
<input type="checkbox"/> Ignitable <input type="checkbox"/> Oxidizer	
WASTE GENERATOR INFORMATION	Labeled by
Department	Phone
Building	Room



NEW SELF-INSPECTION TOOL FROM EH&S



ENVIRONMENTAL HEALTH & SAFETY

UNIVERSITY *of* WASHINGTON

LAB SAFETY DASHBOARD

W ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

[Report a Concern or Injury](#) / [Topics](#) / [Training](#) / [Forms](#) / [About EH&S](#)


[POPULAR SERVICES](#) / [BIOLOGICAL](#) / [CHEMICAL](#) / [ENVIRONMENTAL](#) / [FIRE & LIFE](#) / [RADIATION](#) / [RESEARCH & LAB](#) / [WORKPLACE](#)

Research & Lab

Home > Research & Lab > Laboratory Safety

- Research & Lab
- Animal Use Medical Screening (AUMS)
- Boating Safety
- Caution Sign for Hazards
- Compressed Gas / Cryogenic Fluids
- Diving Safety Program
- Emergency Washing Equipment
- Laboratory Safety**
- Lab Safety Dashboard
- Pressure Vessels
- Research Occupational Health
- Safety Manuals

Laboratory Safety



Laboratory glassware

The Laboratory Safety program oversees safety and compliance in all UW research and teaching laboratory spaces to reduce the risk of injury and exposure, decrease the risk of property loss, lessen the likelihood of lost research, and minimize environmental damage.

CONTACT

Lab Safety Team
(206) 685-3993
labcheck@uw.edu

REFERENCE FILES

- [Safety Training for Laboratory Personnel \(Lab Safety Training Matrix\)](#)
103.05KB (.pdf)
- [UW Hazardous Waste Labels](#)
86.05KB (.pdf)
- [Laboratory Personal Protective Equipment \(PPE\) Hazard](#)

Survey-related Tools and Resources

[Laboratory Survey Checklist](#)

[Laboratory Survey Checklist Extensions](#)

[Laboratory Safety Dashboard](#)

[Laboratory Safety Performance Rating System](#)

[Laboratory Safety Award](#)



ENHANCED LAB SAFETY DASHBOARD

ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

HOME

Principal Investigator Dashboard

Login: Karin A. Fischer Hagen

Lab Profile

Principal Investigator (PI)

Chemical Hygiene Officer

School

Department

Lab Location

Lab Share

Survey#

Building:

RP:

CHD:

Lab Contact:

Select Hazard/s:

- Use of aque regia or piranha solution
- Overnight reactions
- Use of solvent lines
- Use of solvent stills
- Use of hot oil bath
- Use of aggressive glassware cleaning baths: acid/base

Select Shared Space/s:

- Biological safety cabinet
- Chemical fume hood
- Chemical waste combined/common waste storage areas
- Chemicals and/or chemical storage
- Instrument or lab equipment
- Lab benches

Surveyor:

Rooms Surveyed:

Dept:

- BSL-2 (or -) activities
- Use of oven at 450C or above
- Open flames
- Ship hazardous materials or dangerous goods
- Field work using hazardous chemicals
- Chemicals (excluding cleaning solvents) used in the BSC

#	Yes	No	N/A	Question	Survey Comments	Date Corrected
Administrative Plans/Materials						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do the lab staff have access to the current version of the UW Laboratory Safety Manual?		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the lab-specific information been added to the Laboratory Safety Manual?		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all lab personnel have access to written SOPs that document safety procedures?		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all lab staff know how and when to report accidents, incidents, or near-misses in OARS?		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Was a safety self-audit performed within the last 12 Months?		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are assessments of hazards conducted for new work and chemical usage?		
Signage						
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are emergency contact numbers for lab staff, including after-hours emergency contact numbers, posted within the laboratory?		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a lab hazard caution sign posted and current?		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a biosafety door sign posted when agents are in use and removed when not in use?		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are additional hazard warning signs (Laser, magnetic fields, high voltage, etc) posted in lab near the hazard?		
Hazard Communication						
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the lab's chemical inventory been reviewed and updated within the last year?		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the lab's contact information current in MYCHEM?		
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can all lab staff readily access an MSDS/SDS via MYCHEM or hardcopy in the lab?		
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Lab Photo

PI Self-Inspection

ID	Date	Performed By	Findings	Completed
19	2019-07-09	tdy	0	0/79

[New Self Inspection](#)

EH&S Lab Surveys

ID	Date	Findings	Rating
	04-24-2019	5	96
	04-18-2019	1	96
	03-01-2018	7	81
	03-01-2018	6	85



SELF-INSPECTION TOOL

W ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

HOME

Principal Investigator Dashboard

Login: Karin A. Fischer Hagen

Lab Self-Inspection

Principal Investigator (PI)	
Chemical Hygiene Officer (CHO)	
Building	
Department	
Rooms	
Date	2019-10-04

[Start](#)

Instruction

The Self-Inspection form contains a list of 79 questions and is identical to the "Laboratory Safety Checklist" used during EH&S inspections.

- Complete this form by selecting "Yes," "No," or "N/A" (not applicable) for each question.
- The self-inspection entries can be completed over the next 72 hours. After that time the form will expire if an entry has not been made for each question. Click the "Submit" button (found by scrolling to the bottom of the document) at any time to save your work. You may return to finish completing the questionnaire as long as this is done within 72 hours from start.
- Note that explanations of the survey questions can be found on the EH&S website: [lab-survey-checklist-explanations](#)

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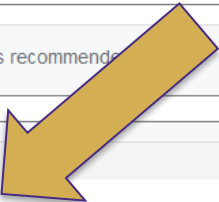
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Phone: (206) 685-3993 | Email: labcheck@uw.edu

Reviewed:


Inspection Number: 162 | Lab Self-Inspection

ID	Answer	Question
Administrative Plans/Materials		
01	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Do the lab staff have access to the current version of the UW Laboratory Safety Manual? <input type="text" value="comments"/>
02	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Has the lab-specific information been added to the Laboratory Safety Manual? <input type="text" value="comments"/>
03	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Do all lab personnel have access to written SOPs that document safety procedures? <input type="text" value="comments"/>
04	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Do all lab staff know how and when to report accidents, incidents, or near-misses in OARS? <input type="text" value="comments"/>
05	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Was a safety self-inspection performed within the last 12 Months? <input type="text" value="comments"/>
06	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Are assessments of hazards conducted for new work and chemical usage? <input type="text" value="comments"/>

73	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Are fire extinguishers available, easily accessible, and free of obstructions? <input type="text" value="comments"/>
Exit Access/Corridors		
74	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Are aisles and exits within the laboratory space free of clutter and obstructions? <input type="text" value="comments"/>
75	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Are corridors and exits free of obstruction and hazardous materials/processed in accordance with UW Corridor Policy? <input type="text" value="comments"/>
Seismic Safety		
76	<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> N/A	Are chemical containers stored safely on shelves with lips or in a closed cabinet to prevent them from falling in an earthquake? <input type="text" value="Need to move chemical in room 258 to shelves with lips"/>
Machinery		
77	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Are all hazardous pieces of machinery mounted or secured to prevent movement or tipping? <input type="text" value="comments"/>
78	<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> N/A	Are all points of operation, rotating components, and other moving parts of machinery properly guarded to prevent injury? <input type="text" value="Vacuum pump in room 307 needs a new guard"/>
79	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	Is laboratory equipment with potential hazards routinely inspected and maintained or serviced as recommended? <input type="text" value="comments"/>
<input type="button" value="Save"/> 		

SELF-INSPECTION RECORD

PI Self-Inspection

ID	Date	Performed By	Findings	Completed
162 	2019-10-04	fischera	0	0/79

New Self Inspection

W University of Washington
Environmental Health & Safety
Public Health

LABORATORY SELF INSPECTION

Principal Investigator (PI):
Chemical Hygiene Officer (CHO):
Department: Biobehavioral Nursing and Health Systems

Self Inspection ID: :
Date: 09-30-2019
Building: MAG HEALTH SCIENCES
Rooms:

Inspection Performed by:

IN/OUT	Repeat	ID	FINDING
<input checked="" type="checkbox"/>			1. Do the lab staff have access to the current version of the UW Laboratory Safety Manual? Finding:
<input checked="" type="checkbox"/>			2. Has the lab-specific information been added to the Laboratory Safety Manual? Finding:
<input checked="" type="checkbox"/>			3. Do all lab personnel have access to written SOPs that document safety procedures? Finding:
<input checked="" type="checkbox"/>			4. Do all lab staff know how and when to report accidents, incidents, or near-misses in OARS? Finding:
<input checked="" type="checkbox"/>			5. Was a safety self-audit performed within the last 12 Months? Finding:
<input checked="" type="checkbox"/>			6. Are assessments of hazards conducted for new work and chemical usage? Finding:
<input checked="" type="checkbox"/>			7. Are emergency contact numbers for lab staff, including after-hours emergency contact numbers, posted within the laboratory? Finding:
<input checked="" type="checkbox"/>			8. Is a lab hazard caution sign posted and current? Finding:
<input checked="" type="checkbox"/>			9. Is a biosafety door sign posted when agents are in use and removed when not in use? Finding:

1/3

RESOURCE

Lab Survey Checklist Explanations

[https://www.ehs.washington.edu/
lab-survey-checklist-explanations](https://www.ehs.washington.edu/lab-survey-checklist-explanations)

#	Question and Explanation	Reference Code
	<i>(additional information for survey team members and report recipients)</i>	
Administrative Plans/Materials		
1	<p>Do the lab staff have access to the current version of the UW Lab Safety Manual?</p> <p>The UW Lab Safety Manual (LSM) is designed to be the cornerstone of each lab safety program; the material included aids faculty, staff and students in maintaining a safe environment in which to teach, learn and conduct research. The LSM is intended to assist users in the recognition, evaluation and control of chemical and physical hazards associated with laboratory operations. The LSM is your reference for laboratory safe practices and policies affecting laboratory operations.</p> <p>The LSM is part of the Washington Department of Labor and Industries "Chemical Hygiene Plan" (CHP). It is required for all laboratories that use hazardous chemicals. WAC 296-828-20005 also requires this document to be updated at least annually; to meet this requirement, EH&S reviews the current version each year and releases an updated version of the LSM in the Autumn.</p> <p>The LSM can be either in paper or electronic format; it must be accessible at all times to all personnel who work with hazardous</p>	WAC 296-828-20005

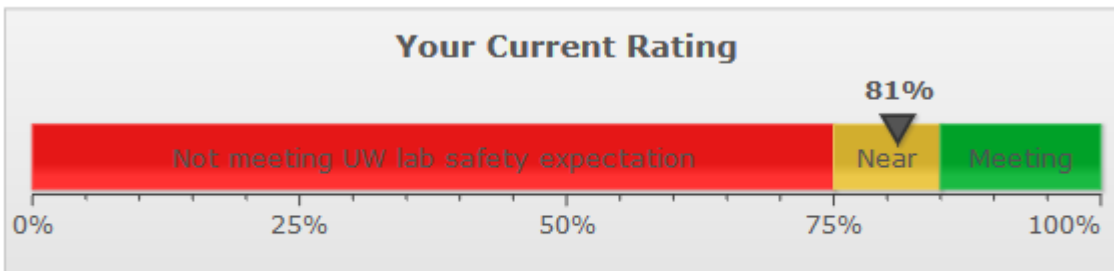
WAYS TO CUSTOMIZE THE SELF-INSPECTION PROCESS



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CUSTOMIZE HOW THEY ARE CONDUCTED

- Frequency
- Individual vs. group
- Static vs. rotating assignment
- How results are communicated to the group
- Collaborate on spaces/resources that are shared



Based upon your recent laboratory survey findings, you are nearing University expectations for safety.



CUSTOMIZE WHAT IS INCLUDED

- Unique hazards, pieces of equipment
- Issues related to previous incidents/accidents
- Recurring issues in a particular space



QUESTIONS?

Alex Hagen

fischera@uw.edu / labcheck@uw.edu

Lab Safety Specialist
Environmental Health & Safety, University of Washington

ENVIRONMENTAL HEALTH & SAFETY

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