Department of Civil & Environmental Engineering

The University of Connecticut

Laboratory Safety Policies and Procedures

Purpose and Statement

The purpose of the Laboratory Safety Policies and Procedures documentation is to establish a uniform repository for pertinent documents to be reviewed by incoming students and employees who wish to work in Civil and Environmental Engineering (CEE) laboratories with occupational safety, chemical and/or biological hazards. The end goal is to enhance personal (and public) Laboratory Safety, proper Chemical Handling, Waste Disposal procedures, Laboratory Etiquette, Accident and Emergency Response preparedness, and establishing Lines of Communication, so that all individuals working in, and exposed to our laboratories have a safe, productive and enjoyable lab experience.

This documentation applies to all students, faculty and staff working in teaching and research labs in the CEE department, and closely mirrors guidelines and policies set forth by UConn's Environmental Health and Safety (see www.ehs.uconn.edu).

The university community adheres to *Unauthorized Individuals in Laboratories Policy*. This policy states that the principle investigator must ensure that only authorized individuals occupy laboratories, and that appropriate personal protective equipment is available. In order for you to gain access to the department's laboratory facilities, you must read and understand this document, completing the necessary steps in Sections 1-5 on this manual before being granted key access to CEE laboratory facilities.

Lastly, it is critical that you work in CEE's labs while actively considering your actions and impact on others, and the laboratory environment on a daily basis. All of the policies and procedures contained herein must be followed, and your willingness and cooperation to improve the quality of the lab will be monitored during your tenure here with CEE.

Good luck and enjoy!

To gain access to the department's *Laboratory Facilities*, you <u>must</u> complete the following six steps (if applicable) enumerated below, and detailed in the ensuing Sections.

- 1. Review UConn's <u>Chemical Hygiene Plan</u> (CHP): The CHP applies to all UConn laboratories on campus, and it is critical that you read through, and become familiar with the CHP and it's applicability to your specific activities in the lab, and the laboratory infrastructure. The internet web link to Uconn's CHP may be found in Section 1 of this document. Similarly, a hard copy of the CHP is located in Castleman Building, room 215.
- 2. Review UConn's <u>Laboratory Inspection Program</u>: The Laboratory Inspection Program applies to all UConn laboratories, and is critical for you to recognize your active role in lab upkeep, safety procedures and laboratory maintenance. Read the policy to familiarize yourself with the specific line items targeted during lab inspections. Make certain to understand the implications of the policy and your lab activities, as well as lab equipment and infrastructure. The Inspection Program outline is found in Section 2. Also, CEE conducts random internal laboratory inspections to supplement UConn's Laboratory Inspection Program. A copy of CEE's Inspection form is attached at the end of Section 2.
- 3. You may be required to complete one or more <u>Laboratory Safety Training</u> courses offered by UConn's Environmental Health and Safety (EH&S). Please refer to Section 3 of this manual. It is highly recommended that you sign-up for and complete your training ASAP to help ensure timely access to your lab. In addition to the EH&S training courses, you must review the Employee Safety Orientation form (ESO) with your supervisor, and the Workplace Hazard Assessment form (WHA) posted in your lab and signed by the Lab's PI.
- 4. Review the <u>Laboratory Accident and First Aid Policy</u> and be prepared to act quickly and responsibly when accidents occur in the lab.
- 5. <u>Meet with CEE's Laboratory Supervisor</u> after completing steps 1-4 above to obtain final authorization for key access to the Lab. The meeting takes 30 minutes of your time. The purpose of this meeting is to:
 - a) Verify the completion of the ESO and review of the WHA with the hiring supervisor.
 - b) Review lab specific policies and procedures concerning safety, chemical handling and storage, waste disposal, personal protective equipment, and, use of shared space and laboratory equipment, etc.
 - c) Demonstrate knowledge of, proper/care of equipment, chemicals & supply storage room
 - d) Proficiency with dealing with Chemical and/or Biological Waste Disposal procedures.
 - e) Address any questions or concerns you may have about working in CEE laboratories
 - f) Before using specialized testing equipment, microscopes, machinery, the user must be trained by the Laboratory Supervisor, PI or fellow graduate assistant based on the discretion of the Laboratory Supervisor. You must prove competency to the Laboratory Supervisor or PI prior to gaining access to the equipment
 - g) Pass Lab Access Clearance Quiz (on lab specific policies, EH&S training & policies)
- 6. *Date and Sign* the <u>Laboratory Verification Forms</u> indicating your acknowledgement of each of the five sections in this manual labeled Section 1-5. Additionally, it is important to become familiar with the EHS website: www.ehs.uconn.edu to monitor the presence and availability of further explanation and future documentation. We highly recommend that you sign up for the Lab Safety ListServe: https://listserv.uconn.edu/scripts/wa.exe?A0=LABSAF-L

Section 1: Chemical Hygiene Plan

Please review and understand UConn's *Chemical Hygiene Plan* (CHP) posted on Uconn's Environmental Health and Safety's website at the link posted below. The Chemical Hygiene Plan applies to all UConn laboratories on campus, and it is critical that you read through, and become familiar with the CHP and it's applicability to your specific activities in the CEE Laboratories.

The CHP for the University of Connecticut follows the National Research Council's general principles of Chemical Hygiene in Laboratories. The basic principles of the CHP are:

- Minimize all chemical exposures.
- Avoid underestimation of risk
- Provide adequate ventilation.
- Institute a formal safety program.
- Observe the Permissible Exposure Limits (PELs, U.S. Dept. of Labor, OSHA) and the Threshold Limit Values (TLVs, American Conference of Governmental Industrial Hygienists).

An up-to-date electronic version of the CHP may be found on the web at the following URL:

http://www.ehs.uconn.edu/Chemical/chemplan.php

Section 2: Laboratory Inspection Program

Carefully review UConn's *Laboratory Inspection Program*: The Laboratory Inspection Program applies to all UConn laboratories on campus, and it is critical that you read through and become familiar with the programs applicability to your specific CEE Laboratory. Doing so will keep your laboratory workspace in compliance with departmental, Uconn, State and Federal guidelines and regulations. The Laboratory Inspection Program is detailed on the following pages of Section 2 of this manual, and, may also be found on the web at the following URL:

http://www.ehs.uconn.edu/Chemical/LaboratoryInspectionProgram.pdf

A hard copy of the Laboratory Inspection Program is located in Castleman Building, room 215, room 302, or may be obtained by the Laboratory Supervisor.

In addition to UConn's Laboratory Inspection Program, CEE conducts random internal laboratory inspections. As an employee working in a CEE laboratory, you are responsible for your assigned workspace and the general conditions of your lab as outlined in the Laboratory Inspection Program. A copy of the CEE Laboratory Inspection Safety Inspection Checklist is included at the end of this Section. Please make certain your group's individual laboratory is continually in compliance with the items listed on the CEE Laboratory Safety Inspection Checklist.

THE FOLLOWING CHECKLIST MAY BE MODIFIED FOR INDIVIDUAL LABS OR DEPARTMENTS TO SUITE THE LAB SPECIFIC HAZARDS OF SAFETY CONCERNS FOR THE LAB SPECIFIC ENVIRONMENT

THIS CHECKLIST MAY BE MODIFIED FOR INDIVIDUAL LABS OR DEPARTMENTS TO SUITE THE LAB SPECIFIC HAZARDS OF SAFETY CONCERNS FOR THE LAB SPECIFIC ENVIRONMENT. INDIVIDUAL LABS ARE RESPONSIBLE FOR CONDUCTING INTERNAL BI-ANNUAL REVIEWS

Room #:

Inspection Date: ____/ ____/

Conducted By:		
1. Laboratory Work Practices		
		Comments
A. Food & beverages not consumed in lab.	Yes No	
B. Food and beverages not stored in the laboratory areas or refrigerators.	Yes No	
C. Refrigerators for food labeled "Food Only"	Yes No	
D. No chemicals in desk area.	Yes No	
E. Lab practices minimize volatilization (traps used, open-containers minimized)	Yes No	
F. Glassware is free from cracks, chips, sharp edges, and other defects.	Yes No	
G. Broken glass containers are available, in use, and not overfilled.	Yes No	
H. Used needles are stored in appropriate sharps containers	Yes No	
I. Proper tubing and fittings used on circulated water lines.	Yes No	
2. Housekeeping		
		Comments
A. Laboratory bench top and storage areas are orderly and uncluttered.	Yes No	
B. Unused items stored safely and orderly.	Yes No	
C. Heavy objects are confined to lower shelves.	Yes No	
D. Electrical cords are in good condition and are UL listed.	Yes No	
E. Extension cords and power strips are not daisy chained and no permanent extension cords in use.	Yes No	
F. Tools and equipment are in good repair and electrically grounded.	Yes No	
3. Personal Protective Equipment		
		Comments
A. Protective gloves are in use and matched to hazards involved.	Yes No	
B. Eye protection in use. (note: minimum protection required is splash resistant glasses.)	Yes No	
C. Lab coats are in use.	Yes No	
D. Gloves and lab coats are only worn in the laboratory and are removed before entering offices, lunchrooms, rest rooms, conference rooms, and other non- laboratory general use areas.	Yes No	
E. Appropriate protective clothing is available and in use when working with biological materials.	Yes No	

4. Hazard Communication

				Comments
A.	Primary & secondary chemical containers are labeled with identity, hazard	Yes	No	
	warnings, and expiration dates. All labels are intact.			
В.	Signs on storage areas, refrigerators, and laboratories are consistent with	Yes	No	
	hazards within.			
C.	The location of MSDS's are known.	Yes	No	
D.	Lab safety information is available and accessible.	Yes	No	
E.	Chemical hygiene plan is accessible.	Yes	No	

5. Chemical Storage

			Comments
A.	All samples have proper identification. (initial - book number - page number - experiment number)	Yes No	
В.	All chemicals are dated.	Yes No	
C.	All containers are properly labeled with department issued bar code.	Yes No	
D.	Incompatible materials are segregated.	Yes No	
E.	Nitric and Acetic acid stored separate from other acids and chemicals.	Yes No	
F.	Chemical storage cabinets close properly.	Yes No	
G.	Liquids and flammables are stored below eye level.	Yes No	
H.	Hazardous materials used/stored in the laboratory are limited to small quantities.	Yes No	
I.	Hazardous waste accumulation areas used for waste only.	Yes No	
J.	Unnecessary, unused, or outdated materials are removed from laboratories and chemical storage areas.	Yes No	
K.	No chemical storage in fume hoods.	Yes No	
L.	Fume hood sashes are kept closed when not in use.	Yes No	
M.	Safety carriers are available and in use while transporting chemicals.	Yes No	

6. Flammable Liquids Storage & Handling

		Comments
A. Flammable liquids are stored and used away from ignition sources.	Yes No	
B. Bulk quantities of flammable liquids are stored in approved storage cabinets.	Yes No	
C. Flammables that are refrigerated are placed in explosion-proof or flammables refrigerators only?	Yes No	
D. Flammable liquid storage cabinets are properly labeled.	Yes No	
E. Flammable liquid storage cabinets close properly.	Yes No	
F. Flammables are not stored on open shelves.	Yes No	
G. Safety cans used to handle small quantities of flammable liquids are properly labeled.	Yes No	
H. Solvent waste cans are labeled properly with University issued Hazardous Waste Labels.	Yes No	
I. Nothing is stored on top of flammable cabinets.	Yes No	

7. Compressed Gas Cylinders					
		Comments			
A. All gas cylinders initialed by person who ordered it.	Yes No				
B. Gas cylinders are properly secured.	Yes No				
C. Cylinder caps are in place when cylinders are not in use or being moved.	Yes No				
D. Gas cylinders are transported on a cart with chains.	Yes No				
E. Gas cylinders are stored away from excessive heat.	Yes No				
F. Fuel gas cylinders are at least 20 feet away from oxygen cylinders.	Yes No				
G. Contents of gas cylinders are properly marked.	Yes No				
H. Full and empty cylinders are stored separately.	Yes No				
I. Empty gas cylinders are labeled "EMPTY" and dated.	Yes No				
J. Gas lines, piping, manifold, etc. are labeled with the identity of their contents.	Yes No				
K. Hoses, tubing, and regulators are in good working condition.	Yes No				

8.	Waste Handling: Hazardous, Non-Hazard	dous	s &	Biological
				Comments
<i>A</i> .	All containers legibly labeled with the full chemical or trade name AND percentage of each chemical. (note: abbreviations/formulas are not adequate)?	Yes	No	
B.	No liquid waste is disposed of in the sinks.	Yes	No	
C.	Hazardous wastes have not accumulated for longer than one month in the laboratory.	Yes	No	
D.	Waste streams are separated as necessary: examples: Solid vs. liquid, organic vs. inorganic, halogenated vs. non-halogenated, etc	Yes	No	
E.	Waste containers are appropriately tagged before placing in the Satellite Hazardous Waste Accumulation Area.	Yes	No	
F.	Chemical and waste containers in good condition.	Yes	No	
G.	Chemical and waste containers closed except during additions.	Yes	No	
H.	No hazardous materials near sinks or drains unless secondary containment is provided?	Yes	No	
I.	Biological waste is appropriately marked with a biohazard symbol.	Yes	No	
J.	Syringes and other sharp waste are disposed of in a proper container and placed directly into biohazard waste container.	Yes	No	
K.	Waste material is not allowed to accumulate on the floors, in corners or under shelves/tables in laboratories.	Yes	No	

9. Walkways and Emergency Exits					
		Comments			
A. Aisles & exits are free from obstruction.	Yes No				
B. Exits are clearly marked.	Yes No				
C. Exits are free from obstruction.	Yes No				
D. All fire doors are kept closed.	Yes No				
E. Telephones are labeled with emergency numbers.	Yes No				

			Comments
Safety showers and eye wash stations are clearly labeled, and these areas are clear from obstruction.	Yes	No	
. All showers and eye wash stations are clean, covers are replaced, and in good working condition.	Yes	No	
C. Fire extinguishers are available, unobstructed, and easily accessible.	Yes	No	
2. Fire extinguishers are appropriate for the hazards in the work area.	Yes	No	
. Fire extinguishers are checked monthly.	Yes	No	
First-aid supplies are available and clearly visible.	Yes	No	
11. Other Labeling & Posting			
			Comments
Warning signs and labels are present whenever required (e.g. carcinogen, mutagen) where chemicals are stored.	Yes	No	
3. "Caution- Radioactive Material" signs are posted on doors of all authorized laboratories, and on refrigerators/freezers where materials are stored.	Yes	No	
C. Biohazard symbols are posted on potentially contaminated equipment and areas.	Yes	No	
L2. Miscellaneous & Notes n any items are marked "NO" above, immediate action should be taken omments should be taken into consideration when evaluating your specially to ansure your lab is in compliance with the departmental incompliance with the department with the departmental incompliance with the departmental incompliance with the department with the departm	pecific	lab sp	pace. Please use this form
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Violation Report

Room #:						Ins	pectio	n Date	:	_/_	/	
Conducted	l By:											
Section 1:	A	В	C	D	E	F	G	Н	I			
Section 2:	A	В	C	D	E	F						
Section 3:	A	В	C	D	E							
Section 4:	A	В	C	D	E							
Section 5:	A	В	C	D	E	F	G	Н	I	J	K	L
	M											
Section 6:	A	В	C	D	E	F	G	Н	I			
Section 7:	A	В	C	D	E	F	G	Н	I	J	K	
Section 8:	A	В	C	D	E	F	G	Н	I	J	K	
Section 9:	A	В	C	D	E							
Section 10:	A	В	C	D	E	F						
Section 11:	A	В	С									
Comments:												

Section 3: Laboratory Safety Training

You are required to complete *Laboratory Safety Training* administered by UConn's office of Environmental Health and Safety (EH&S). The following Safety Training courses are <u>required</u> if you plan to work in the Environmental Engineering laboratory. For other departmental labs, please review to the Workplace Hazard Assessment (WHA) form for each lab.

- a. General Laboratory Safety & Chemical Waste Management (required for all students and faculty working in labs)
- b. Biosafety General Training (if working w/ biological media or a biological lab)
- c. Personal Protective Equipment (PPE) training (chemical and occupational hazards)
- d. Other specific training indicated below as determined by the Laboratory's WHA form (check with Lab Supervisor, PI or EH&S)

If you will work in other CEE labs (Concrete & Materials, Soils, Structures Lab, Geoenvironmental, etc.), please check with your hiring supervisor to review the Workplace Hazard Assessment (WHA) and Employee Safety Orientation (ESO) for specific hazards and appropriate PPE required for Lab Access. The General Laboratory Safety training course is required for all individuals who wish to work in any university laboratory. If you have questions about this process, please see the Laboratory Supervisor after completing the WHA and ESO forms:

If you plan to work in any CEE lab, please see The Laboratory Safety Training checklist below which summarizes all training options offered by EH&S and the training recurrence frequency required by UCONN. You may not work in CEE's Laboratories until you have completed the required safety training courses indicated above.

Please visit the following link to view Laboratory Safety Training checklist:

http://www.ehs.uconn.edu/training/schedule/labtrain.php

Some safety training courses require Annual Re-training for continued lab access. Please check with your Supervisor and/or EH&S to determine if you are required to sign up for and complete an annual refresher for each appropriate training course.

Some retraining courses are available on HuskyCT.

Laboratory Safety Training Checklist

Euroratory Surety Truming Checki		
ACTIVITY	TRAINING REQUIREMENTS	TRAINING FREQUENCY*
Are chemicals present?	<u>Laboratory Safety and Chemical Waste</u> <u>Management</u>	Annual
Are you working in a radioactive materials lab?	Radiation Safety Non-user Radiation Safety User	Initial, then as needed Initial, then every 2 years
Are human materials (blood, body fluids, cell lines) used?	Bloodborne Pathogens Bloodborne Pathogens Retraining	Initial, then annual retraining Annual
Are biological agents used?	General Biological Safety	Annual
Are animals (living or non-living) used?	General Biological Safety in Animal Research	Once, then as needed
Are laser devices used?	<u>Laser Safety</u>	Once, then as needed
Are x-ray devices used?	X-ray Safety	Once, then as needed
Does the lab ship biological agents?	Shipping and Transportation of Biological Materials	Once, then every 2 years
Are Select Biological Agents possessed, used, stored or other wise accessed?	Select Agent Training- Contact the Biological Safety Officer	Initial, then every year
Is this a Biological Safety Level 3 (BSL3) facility?	BSL3 Training-Contact the Biological Safety Officer	Initial, then every 2 years

Visit: http://www.ehs.uconn.edu/training/schedule/labtrain.php to arrange a training class at your convenience. You will not be granted key to enter the laboratory prior to completing the required training courses. Contact Environmental Health & Safety or Jon Drasdis, Laboratory Supervisor, for information.

Please bring verification forms with you to EH&S training course to be signed by the INSTRUCTOR.

Section 4: Laboratory Accident and First Aid Policy

Please review the policy summarized on the following pages. The *Laboratory Accident and First Aid Policy* outline below may also be found on the web at the following URL:

http://www.ehs.uconn.edu/Chemical/chemlabaccdt.html

The above-referenced document is posted at the end of this section for your review.

Please note, in the event of a laboratory chemical spill or accident, the appropriate individual's must be contact regardless of initial apparent severity. It is always better to be safe than sorry.

REPORT ALL LAB ACCIDENTS

Laboratory Accident and First Aid Policy

If an accident in the lab occurs, please notify someone ASAP (no matter how severe the accident or injury may seem at the time). Contact the Laboratory Supervisor (or closest individual working in lab). In the event the Laboratory Supervisor is not available, contact Administrative Staff in the CEE Main office (6-4018). Report immediately to Student Health Services (SHS).

Student Health Services extn. 6-4700

http://www.shs.uconn.edu/

- 1) Test plumbed eyewashes weekly; keep a log.
- 2) Remove chemical bottles from work area of Facilities personnel working in laboratories.
- 3) Stock first aid kits with Band-Aids, 4X4 gauze, roller bandages and ace bandages (no creams, ointments, etc.); report to Student Health Services (SHS) after first aid has been administered.
- 4) Bypass Student Health Services and call 911 for serious injuries and true emergencies (fires, explosions, major spills, etc.)
- 5) For Bleeding and Wound Care
 - a) Wear clean gloves.
 - b) Cover area with gauze (or clean paper towels).
 - c) Apply pressure to bleeding area -- have person sit or lie down.
 - d) If wound is large or person is dizzy or weak, call 911 to transport person to SHS or Emergency Room.
- 6) Burns -- Heat/Chemical
 - a) Heat burns: -- run cool water over area for 5 minutes, then report to SHS; <u>if burn area is</u> large, cover with a cool, wet cloth and call 911.
 - b) Chemical burns (acid or alkaline) flush with large amounts of cool running water for 15 minutes. For small area, report to SHS. For larger area or if person is weak or dizzy, call 911 for transport.
- 7) Eye Splash Chemical

Flush with lukewarm (body temperature) running water; turn head side to side and have water run across both eyes. Flush eyes for at least 15 minutes before going for further treatment at SHS or Emergency Room.

- 8) Eye Foreign Body (dust or metal, paint, wood chips)
- . Cover or close eye.

For all injuries, Report to SHS for evaluation (Infirmary).

Student Health Services
234 Glenbrook Road, Unit 2011
Storrs, CT 06269-2011
Phone: 860-486-4700

Fax: 860-486-5300

DO NOT POUR ANY CHEMICALS DOWN SINK DRAINS OR SEWER GRATES.

Call EH&S (6-3613) for a NO-CHARGE chemical waste pickup.

Section 5: Laboratory Specific Policies

After successfully completed steps 1-4 above, you are required to meet with CEE's Laboratory Supervisor before obtaining final authorization for Laboratory Access for the CEE Laboratory you will be working in. This meeting should take less than 1-hour of your time. The purpose of this meeting is to:

- Review specific hazards in the lab you may encounter, and how to deal with them (review the WHA and ESO form with your supervisor)
- Review lab specific policies and procedures concerning occupational safety, emergency response, chemical handling and storage, waste disposal, personal protective equipment, and, use of shared space and laboratory equipment, etc.
- ❖ Use and care of Chemical Storage & Supply Storage Room
- ❖ Demonstrate your proficiency with dealing with Occupational hazards, Chemical and/or Biological Waste Disposal procedures
- ❖ Address any questions or concerns you may have about working in CEE laboratories. Hazards are laboratory specific so it is important to work closely with other students, the PI and the Laboratory Supervisor.
- ❖ Before using specialized testing equipment, presses, furnaces, load frames, mixers, microscopes, machinery, meters, the user must be trained by either the Laboratory Supervisor, Principle Investigator (PI) or fellow graduate assistant based on the discretion of the Laboratory Supervisor. You must prove competency to the Laboratory Supervisor or PI prior to gaining access to the equipment.
- **❖** Laboratory Acess Clearance Quiz (students only)

Chemical Waste Pick-up

If you have Chemical, Biological, Radioactive, etc., waste that needs to be disposed of. Note: Once you are done with a specific project, you should dispose of all waste generate. CEE Labs should not be used as storage areas for samples or waste under any circumstances. Please note: many common waste streams are actually chemical in nature, so careful attention should be paid to a products (or wastes) MSDS and proper handling and disposal procedures. If you have questions, please contact the Laboratory Supervisor or EH&S.

Chemical Waste Pick-up at the University of Connecticut provides laboratory users a painless method of removing generated chemical waste from the laboratory setting with minimal effort. Once sufficient waste is generated, properly handled, packaged and labeled, please contact EH&S Chemical Waste Pick-up by using the following on-line form:

http://ehs.uconn.edu/cwc/request.php

A screen shot of the above link is depicted below. Here, you will see that you can quickly and easily indicate the items and location of chemical waste you wish to have removed by EHS. Also, there is an area to re-order additional chemical waste supply containers and labels, free of charge.

Complete the on-line form or call 486-3613 to arrange a pick-up. Please plan to make arrangements approximately 1 week in advance. Waste may be temporarily stored in the appropriate Satellite Accumulation area in Castleman 218, 215A, 105, 108, 112 and 116 until pick-up. All waste must be properly labeled and packaged prior to pick-up. You must be present when your waste is picked up from the laboratory.

Chemical Waste Pickup

Please complete all s	sections that apply. Fields marked with st are required					
Click here to submit your request:submit						
For assistance with this form and questions about chemical waste pickup or						
supply delivery, call 486-3613.						
Pickups are Mondays,	Wednesdays, and Fridays					
Contact Name*:						
Campus*:	Storrs Campus 🔻					
Department:	_					
Building*:						
Room Number:						
Phone Number*:						
Email*:						
Description: Number and size of	_					
Containers ready for pickup / Comments						
Replacement Containers:						
# of 5-gallon Containers:	0 🔻					
# of 55-gallon Containers:	0					
☐ Hazardous Waste Stick	sers					
☐ Hazardous Waste Tags						

Biological Waste Pick-up

Similarly, generated biological wastes must be properly packaged, labeled and set aside in the Satellite Waste Storage area in Castleman 215A, 105, and 116 prior to submitting the following form to EHS for Waste Pick-up:

http://ehs.uconn.edu/bwc/request.php

A screen shot of the Biological Waste Pick-up and supplies reorder form is depicted below. Please remember that the labels for biological waste are different than those labels used for Chemical Waste. If you do not use the correct labels, your waste will not be picked up.

Please complete all sections that	apply. Fields marked with st are required.
Click here to submit your reques	t: Submit
	questions about biological waste pickup or ickups are Tuesdays and Thursdays
Name*:	
Building and Room Number*:	
Phone Number*:	
To be picked up: Number of large (4.0) boxes:	
Number of small (2.2) boxes:	
Number of unboxed sharps containers:	
To be delivered: Number of large (4.0) boxes: Number of small (2.2) boxes:	
Number of 7.5 gallon A sharps containers:	(14827105) Fisherbrand
Number of 2 gallon B sharps containers :	(8970) Kendall
Number of 5 quart E sharps containers :	(8950SA) Kendall
Number of 1 quart F sharps containers :	(8900SA) Kendall
Number of 2 liter H sharps containers :	(4127) Sharpsafe
Number of 8 gallon P sharps containers :	(8980) Kendall
☐ Biological Waste Labels	

Improperly labeling or packaging biological waste is strictly prohibited. EH&S also offers the following Sharps containers (depicted below) at your request at the above-indicated link:



Accommodates large serological pipettes



Bench top unit accommodates larger syringes and Pasteur pipettes



E,F,H are smaller bench top units that accommodate small syringes. slides and razor blades







Accommodates large serological pipettes

Sharps Containers Available from Biological Health & Safety

- A. Fisherbrand 7.5 Gallon
- B. Sage 2 Gallon
- E. Sage 5 Quart
- F. Kendall 1 Quart
- H. Sharpsafe 2 Quart
- P. Sage 8 Gallon

Order sharps containers at http://www.ehs.uconn.edu/bwc/request.php

General Comments about Biological Health and Safety

UConn's Biological Health & Safety Programs have two areas of focus: Biological Safety and Public Health. The aim of biological safety staff is to recognize and evaluate the occupational and laboratory risks associated with the use, storage or disposal of biological agents such as bacteria, viruses and fungi. The program is designed to introduce and recommend procedures, practices, equipment and facility design, promoting contamination control, agent containment and risk reduction. Additionally, the programs assures University compliance with OSHA, CDC/HHS, NIH/HHS, DPH, FDA, DEP/EPA, USDA/APHIS, DOD, DOC, DOT and USPS regulations. The Public Health programs are designed to facilitated protection of the public health of the University community and visitors from environmental hazards (biological, chemical, radioactive and physical) associated with food and water and general hygiene by assuring the appropriate DEP, OSHA, Department of Consumer Protection (DCP), FDA, Public Health code and University policy regulations are followed.

EH&S offers a Biological Waste Guide which may be found at the following link:

http://www.ehs.uconn.edu/Biological/biowasteguide.html

If you work in a lab which generates biological waste, you must carefully read the guide.

Signed Verification Forms

Please complete the forms on the following pages <u>after</u> you completed each of the previous five (5) steps in Sections 1-5. When you complete each step, please make a copy of the verification form for your records and submit the original to the Laboratory Supervisor. Please complete all Lab Access forms and the Verifications forms before meeting with the Laboratory Supervisor.

** **Please note**: when you attend an EHS training course, it is useful to bring this manual with you to have the following forms signed by the course instructor, indicating you have taken the appropriate EHS training course.

Acknowledgement Verification Forms 1 of 5

I verify that I,	ha ha	ve read and fully understar	nd the
(print name University of Connecticut's Chemica		·	
& Safety. I hereby agree to follow the	hese guidelines while	e working in the CEE Labo	oratories
(sign)	(date)	-	

Acknowledgement Verification Forms 2 of 5

·	oratory Inspection	have read and fully understand the Program provided by Environmental aidelines while working in the CEE
Laboratories.		
	(sign)	(date)

Acknowledgement Verification Forms 3 of 5

(In:		verify that	(, 1 , , ,)
	structor - print name)		(student name - print)
s taken and suc	cessfully passed the El	H&S Laboratory Safety Tra	aining courses required by
iversity of Cor	nnecticut for the above-	-named student to work in	university laboratories.
ave registered	and successfully comp	leted the following Laborat	tory Safety Training Cour
	completed WHA and Expression initials below):	SO forms for my research/v	work related activities in t
·	& Chemical Waste Ma	nagement	
• Lab Saicty	C Chemical waste Ma	Initial	Date Trained
❖ Biosafety €	General Training		
		Initial	Date Trained
❖ <u>"other" re</u>	quired Training (if nece	essary, as determined by the	WHA form or Lab PI)
❖ "other" re-	quired Training (if nece	ssary, as determined by the	WHA form or Lab PI)
		essary, as determined by the Tourist Initial	WHA form or Lab PI) Date Trained
	ame		

Acknowledgement Verification Forms 4 of 5

I wanifu that I	have good and fully understand the
I verify that I,(print name)	have read and fully understand the
4	provided by Environmental Health and Safety. I
hereby agree to follow these guidelines, s	safety procedures and reporting procedure while
working in CEE Laboratories.	
working in ODE Euroratories.	
	(1.1)
(sign)	(date)

Acknowledgement Verification Forms 5 of 5

verify that I,	have met with the CEE Laboratory
(print student name)	s and procedures contained in this manual and Uconn
rupervisor, and runy understand an ponete.	s and procedures contained in this manual and Ocolin
EH&S policies, and agree to follow all rule	s and regulations while working in CEE Laboratories
(sign)	(date)
(Sigil)	(date)
Γο be completed by the Laboratory Supervi	isor
to be completed by the Laboratory Supervi	
	1301.
, the abo	ove-named candidate has meet all the formal
(print student name) , the abo	
(print student name)	
(print student name) equirements in Sections 1-4 of this docume	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz,
(print student name) equirements in Sections 1-4 of this docume	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz,
(print student name) equirements in Sections 1-4 of this docume	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz,
(print student name) equirements in Sections 1-4 of this docume	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz,
(print student name) equirements in Sections 1-4 of this docume lemonstrating a thorough knowledge of CE	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz, EE's Laboratory Safety Policies and Procedures manu-
(print student name) equirements in Sections 1-4 of this docume	ove-named candidate has meet all the formal ent, and has successfully passed the Laboratory Quiz,