



LABORATORY MOVE MANUAL

Lab Safety Move-In Guide

Moving into a new lab is a great opportunity to set up a safe work environment. This manual contains the preparatory steps needed to safely setup and manage your lab.

If you have questions about this guide or would like to schedule an assessment of your lab spaces, contact the Department of Environmental Health and Safety at 852-6670.

Overview

All laboratories within the University of Louisville (the University) maintain certain standards for the safety of laboratory personnel, the environment, and contractors or vendors. Information on these safety regulations is available through numerous guides, including:

Laboratory Safety Manual: <http://louisville.edu/dehs/occup-health-safety/occup-health-safety-files/laboratory-safety-manual/>

University Waste Disposal Guide: <http://louisville.edu/dehs/waste-disposal/chem-haz-pickup-form>

University Biosafety Manual: <http://louisville.edu/dehs/biological-safety/biological-safety-files/university-of-louisville-biosafety-manual>

University Radiation Safety Manual: <http://louisville.edu/dehs/radiation-safety/radiation-safety-files/radiationsafetymanualforresearch>

Responsibilities

The Department of Environmental Health and Safety (DEHS) will provide proper guidance on regulatory requirements for all laboratories. DEHS is always available to answer questions.

Departments/department chairs are responsible for ensuring that all Principal Investigators are aware of and follow safety requirements.

Principal Investigators (PIs) are responsible for the safe operation of their laboratory. This includes providing proper training and personal protective equipment to lab personnel prior to working in the lab and securing all necessary transport permits/Material Transfer Agreements prior to transfer of agents to the University.

Laboratory Supervisors or Managers are responsible for implementing the safety practices of the laboratory and ensuring that all laboratory personnel are trained prior to working in the lab. If there is no designated laboratory supervisor or manager, this responsibility falls to the Principal Investigator.

All lab workers are responsible for following appropriate safety practices of the lab and for reporting unsafe practices to the Laboratory Supervisor or PI. Lab workers must complete DEHS required training. All lab workers can contact DEHS at any time with questions or concerns.

Important Contact Information

DEHS Main Office	502-852-6670
Hazardous Waste Coordinator	502-852-2956
Biological Safety Officer	502-852-2959

Radiation Safety Office	502-852-5231
U of L Police	502-852-6111
Physical Plant/HSC	502-852-5695
Physical Plant/Belknap	502-852-6241
Custodial Services/HSC	502-852-7174
Custodial Services/Belknap	502-852-8200

Laboratory Move-In Guide

The following sections will act as a guide for establishing a safe working environment in your lab, detailing both regulatory requirements and best practices. An extended checklist on self-assessing your lab space can found here: <http://louisville.edu/dehs/occup-health-safety/occup-health-safety-files/lab-safety-self-assessment>.

BioRAFT Lab Page Creation and Personnel Training Management

The University utilizes a lab research management system called BioRAFT (<https://louisville.bioraft.com/>). Using University login credentials, PIs will access their lab pages from which they can manage general training needs, lab personnel, upload documentation, and utilize laboratory safety assessment tools.

Completing the Job Activities section for each lab member under the Members tab allows BioRAFT to send automated notifications and reminders for which general trainings are required to personnel.

Contact DEHS (502-852-6670) if you have questions about BioRAFT or do not have an established lab page.

View this short video for guidance on using the modules in BioRAFT: <https://youtu.be/JBr13x-7S28>.

Laboratory/Emergency Information and Emergency Equipment

1. Create a chemical hygiene plan (CHP) using the template found on this page: <http://louisville.edu/dehs/chemical-safety>. Review the CHP with all lab personnel. Review and revise the CHP on an annual basis, and keep it as a paper copy and/or upload it to the Documents tab of your BioRAFT lab page.
2. Post emergency phone numbers near all phones.

9-1-1 for life-threatening emergencies and all fires

502-852-6111 (University of Louisville Police Dept.) for non-life threatening concerns

502-852-6670 (DEHS) for lab safety questions and concerns

3. Ensure all lab personnel are aware of evacuation routes and the location of safety showers, eyewashes, first-aid kits, fire extinguishers, and spill response supplies.

4. Eyewashes and safety showers should have tags with the last date of inspection by Physical Plant. If a tag is missing or the last date of inspection is not within the last month, make a non-chargeable request here <http://louisville.edu/physicalplant/forms/non-chargeable-service-request> or call 502-852-6241 (Belknap) or 502-852-5695 (HSC). Keep the area around safety showers, eyewashes, and fire extinguishers clear.
5. Have a spill kit prepared to handle small spills. Spill kits include absorbent material (paper towels, absorbent mats, etc.), heavy-duty gloves and splash goggles, and a bag or bucket to collect used materials as hazardous waste. A biological spill kit will also include appropriate disinfectant. If a spill is large, materials are not available, or lab personnel do not feel comfortable cleaning it, immediately contact ULPD 502-852-6111 for assistance.

Hazard Communication

1. Submit an all-hazards lab sign request using this form: <http://louisville.edu/dehs/chemical-safety/chemical-safety-files/all-hazards-sign-request>. Complete a sign request for each lab space that you have; DEHS will generate, laminate, and post signs on doors.
2. Label household-grade refrigerators and microwaves with 'No Food and Drink Allowed' and 'No Flammable Materials' stickers. A biohazard symbol sticker is placed on all incubators, refrigerators, freezers, biosafety cabinets, centrifuges, and any other large equipment that stores or manipulates biological materials. Stickers are available at the Radiation Safety Office on Health Science Campus Library Commons (502-852-5231) or DEHS Main Office (502-852-6670) on Belknap campus.
3. Ensure the Radiation Safety Officer has posted the room for radioactive material use, if necessary, prior to transporting the material into the lab.

Equipment

1. Check chemical fume hoods for a yellow airflow certification sticker and working alarm. Contact DEHS (502-852-6670) for airflow certification and Physical Plant (502-852-6241) for alarm or hood operation questions.
2. Biosafety safety cabinets require annual certification by a certified vendor. The University utilizes the following vendors for cabinet certification:

Precision Air Technology

919-812-0340

sanderson@precisionairtechnology.com

Lewis Testing Services, Inc.

317-862-9387

laura@lewistestingservices.com

3. If floor-model centrifuges were moved, arrange with the manufacturer or service provider to have them leveled and reinstalled.

Chemical Storage and Chemical Waste

1. Maintain a chemical inventory. An explanation of what should be included and a template are available here: <http://louisville.edu/dehs/chemical-safety>. BioRAFT has a Documents tab that can house an Excel file of your inventory or a ChemTracker module in which you can input your chemical inventory item by item for more detailed tracking. It is best practice to update your chemical inventory as you use/receive chemicals.
2. Properly segregate (store in different locations or separated by secondary containment) liquid and solid chemicals by hazard class.

Flammable liquids, flammable solids, combustibles

Corrosives (acids separate from bases)

Oxidizers, peroxide-formers, water reactives, organic peroxides

Poisons/toxins, cyanides

3. Store all flammable liquids, flammable solids, and combustibles in a flammable storage cabinet.
4. Secure all compressed gas cylinders to wall-mounted brackets with a chain (contact Physical Plant to request a chain). Cap cylinders not in use; use proper regulators to cylinders in use.
5. Spent, expired, or unwanted chemicals are collected by DEHS. Request waste pickup through this online form using University login credentials: <http://louisville.edu/dehs/waste-disposal/chem-haz-pickup-form>.
6. Consult the Waste Disposal Guide and this waste labeling guide for chemical waste management: <http://louisville.edu/dehs/waste-disposal/waste-disposal-files/waste-disposal-guide>.

Biohazardous and Infectious Waste

1. Contact Custodial Services (HSC 502-852-7174 or Belknap 502-852-8200) to request Stericycle biohazard waste boxes and red liners. White or yellow labels for the boxes are acquired from the Radiation Safety Office (502-852-5231) or DEHS Main Office (502-852-6670). A tutorial video on biological waste management is available: <https://www.youtube.com/watch?v=5qa65BYVAOY&t=13s>.
2. Collect contaminated sharps in a leak-proof, puncture-resistant, labeled sharps container (not provided by Custodial Services or DEHS). When the container is $\frac{3}{4}$ full, close the lid and dispose of the entire box in a Stericycle biohazard waste box. Uncontaminated sharps, such as broken glass, are collected in a labeled, bag-lined, puncture-resistant container (such as VWR glass waste boxes). This box should weigh less than 20 pounds as a courtesy to custodial services.

Radiation

1. Application for Authorization to Use Radioactive Materials:
<http://louisville.edu/dehs/radiation-safety/radiation-safety-files/AppForRadioActivUseAuth>.
2. Contact the Radiation Safety Office (502-852-5231) to complete a Radiation Entry Survey prior to moving radioactive materials into the lab.

Laboratory Safety Self-Assessment

1. The laboratory safety self-assessment is a checklist covering the major safety points for a lab space: <http://louisville.edu/dehs/occup-health-safety/occup-health-safety-files/lab-safety-self-assessment>. A How-To document for uploading the assessment to BioRAFT is available: <http://louisville.edu/dehs/occup-health-safety/occup-health-safety-files/bioraft-self-assess/>.