



Lab Safety Startup Procedures

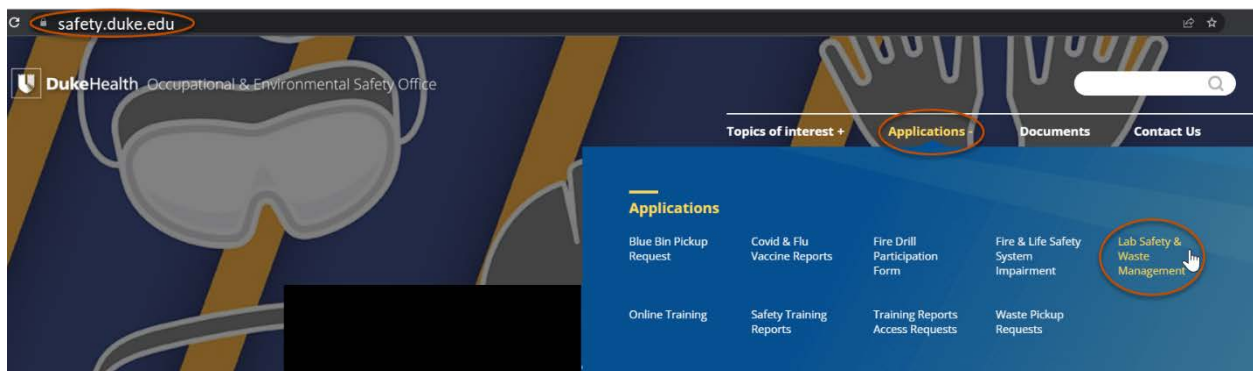
Below are instructions containing detailed information about how to start a lab at Duke and become compliant with Duke's [Occupational & Environmental Safety Office \(OESO\) Lab Safety Program](#). The last page has a checklist of items required to complete the startup process.

Initial Startup Actions

1. Fill out and submit the [Notice of Lab Occupancy](#) Qualtrics survey. Once submitted, the Lab Startup Coordinator will reach out to you and others as indicated on the notice. In the meantime, any questions can be emailed to labsafety@duke.edu.
 - a. This survey requests the type of work the lab will be doing. None of the sections about hazards need to be exact at this stage. The information given is to help the Lab Startup Coordinator determine which resources to provide.
2. Register your recombinant DNA work with the [Institutional Biosafety Committee \(IBC\)](#) by completing the [Recombinant DNA \(rDNA\) Registration Form](#).
 - a. If you are unsure if your work needs to be registered, the IBC has developed a 5-minute web-based [rDNA survey](#) that will help determine if your work must be registered or not. This survey is developed to ensure that all investigators understand their responsibilities for registering any covered rDNA research.

Setting up your profile in Lab Safety & Waste Management

The items below are not required to complete before your startup meeting, but it is recommended that you begin the process.



Log into the [Lab Safety & Waste Management System](#) (LSWMS), or access via safety.duke.edu, as shown in the screenshot above). If you do not already have access, send an email to the Lab Startup Coordinator or labsafety@duke.edu.

- 1) Review your **PI summary** for accuracy.



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- 2) Select **Lab Contacts** to update the list of Lab Contacts and Lab Personnel.
 - a. **Lab Contacts** are people in the lab who will have safety responsibilities such as submitting waste, or serving as the Lab Coordinator or Chemical Hygiene Officer. They will have access to the [Lab Safety and Waste Management System](#).
 - b. **Lab Personnel** are those who do not have safety responsibilities, such as undergraduate students, graduate students, post-docs, or research technicians. They will not be able to log in to the [Lab Safety and Waste Management System](#).
 - c. **Complete [Online Safety Training](#)**. All Principal Investigators (PIs), lab staff, unpaid lab workers, and students need to take the courses. See next steps for how to view and assign trainings to others.
 - d. Click “View” beside each lab member to **view online training records** for each person in the lab. Remind everyone in the lab to complete any overdue training.
 - i. All laboratory members who enter wet lab spaces need the following:
 1. [Fire/Life Safety](#)
 2. [Lab Safety General](#)
 3. [Hazard Communication for Lab Personnel Orientation](#) (or [Hazard Communication for Lab Personnel Update](#) if they have already taken the orientation)
 - ii. Any lab members working with biological materials at BSL-2 and/or human blood, tissue, or cell lines (including immortal cell lines purchased from a vendor) should also complete the following:
 1. [Biosafety Level 2 and BBP for Lab Workers](#)
 - iii. Any lab members who prepare shipping papers and/or packages containing biological materials and/or dry ice should complete the following:
 1. [Shipping Biological Materials](#)
 - e. The above training modules (as well as hearing protection, ladder safety, and lab ergonomics training) can all be assigned using the **Lab Activities** feature (see [detailed instructions](#)). Let the Lab Startup Coordinator know if any additional training adjustments are needed.
- 3) Select **Manage Rooms** to “Edit Rooms” (add all of your lab rooms and shared spaces)
- 4) Select **Chemical Reporting** to submit your inventory of [Targeted Chemicals](#) and answer questions related to the [Toxic Substances Control Act \(TSCA\)](#). [Targeted Chemicals](#) are chemicals of interest to the [Department of Homeland Security and the Environmental Protection Agency](#).
 - a. *Submitting the Targeted Chemical Report is required for every lab, every year, even if no targeted chemicals are used or stored.*
- 5) Select **Biological Reporting** to submit a report of the biological materials that are used or stored by your lab in our [Biological Materials Reporting System \(BMRS\)](#).
 - a. *Submitting the Biological Materials Report is required for every lab, every year, even if no biological materials are used or stored.*



Documentation Requirements

The items below are not required to complete before your startup meeting, but it is recommended that you begin the process. The documents can be emailed to the Lab Startup Coordinator or via labsafety@duke.edu as they are completed.

- 1) All lab members must complete [Online Safety Training](#). All Principal Investigators (PIs), lab staff, unpaid lab workers, and students need to take the appropriate courses. (Details are described under item 2 on the previous page.)
- 2) For working with **chemicals**, you will need to fill out a [Lab-specific Chemical Hygiene Plan](#) that includes:
 - a. A *chemical inventory*, or at least a list of chemicals in your lab that are [particularly hazardous or high risk](#). OESO has created a [GHS Lookup Tool](#), which helps identify the hazards associated with chemicals. Instructions on how to use this tool can be found on [OESO's Particularly Hazardous Substances webpage](#).
 - b. *Lab-specific Standard Operating Procedures (SOPs)* for all chemicals requiring lab-specific SOPs.
 - i. The [GHS Lookup Tool](#) should be used to identify which chemicals require a lab-specific SOP. Enter the CAS numbers for each chemical in the lab into the tab named "Multiple CAS Lookup". Then, use the "Sort-by-Action" button to bring the Action A and B chemicals that require lab-specific SOPs to the top of the sheet (see the "Action" column).
 - ii. OESO has developed many pre-filled, customizable Guidelines (SOPs) for commonly used lab chemicals on the [Chemical SOPs and Guidelines webpage](#). If a pre-filled Guideline for a given chemical isn't available from OESO, use the general [SOP Creation Guidelines](#) and [SOP template](#) to create your own lab-specific SOP. The hazard information from the [GHS Lookup Tool](#) and supplier's SDS can be helpful references.
 - c. *Chemical High-Risk Procedures*
 - d. *Emergency Response* instructions
- 3) If **chemical waste** will be produced, carefully review the [Chemical Waste Policy](#), information on how to properly dispose of [chemical waste](#), and [New User Training Videos for Chemical Waste Disposal](#).
- 4) For working with **biological materials**, if you are ONLY using Human Tissues/Products, use the standard [Guideline – Human Specimens \(blood, body fluids, cell lines\)](#). For all other biological materials that require working at BSL-2 or higher, use the [Biosafety SOP template](#). The completed document should be emailed to biosafety@duke.edu for approval.



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- a. OESO has created a [Biological Materials Reporting System \(BMRS\)](#) as a means for laboratories to determine which biological materials require SOPs approved by the [Biological Safety Division](#). This report must be completed annually.
- 5) Complete the [Lab Safety Evaluation Checklist](#). This document details many of the different questions that the evaluator will ask during a typical Lab Safety Evaluation.
- 6) Complete any outstanding requirements from [Employee and Occupational Health and Wellness \(EOHW\)](#) such as documenting Hepatitis B vaccine compliance (if working with human specimens), or completing the Animal Handler Health Review (if working with animals).
 - a. These items should be listed under [Online Training](#) for each individual.
- 7) Contact [OESO Radiation Safety](#) for any questions regarding the use of **radiation** and to complete an [Application for Radioactive Material Authorization](#) or [Laser Registration form](#) for Class 3b or 4 lasers.



Checklist

Complete the following items and email any documents as they are completed to the Lab Startup Coordinator or labsafety@duke.edu. Please send Word or Excel versions of the documents to facilitate review.

- Complete the [Notice of Lab Occupancy](#) Qualtrics survey
- Register your recombinant DNA work with the [Institutional Biosafety Committee \(IBC\)](#) by completing the [Recombinant DNA Registration Form](#)
- Update your [Lab Safety and Waste Management System](#) (LSWMS) profile
 - Add Lab Contacts and Lab Personnel
 - Ensure all lab members have completed the appropriate online safety training
 - Add all lab rooms and shared spaces
 - Submit annual [Targeted Chemical Report](#) (LSWMS > Chemical Reporting)
 - Submit annual [Biological Material Report](#) (LSWMS > Biological Reporting)
- Complete [Online Training](#) (all lab members)
- Fill out your [Lab-specific Chemical Hygiene Plan](#) and review the [Chemical Waste Policy](#)
- Compile your lab's [Chemical Inventory/GHS Lookup Tool](#)
- Create [Chemical SOPs](#) for [Particularly Hazardous/High-Risk substances](#)
- Create [Biosafety SOPs](#) for all biological materials that require working at BSL-2 or higher and are not covered by the [Guideline – Human Specimens \(blood, body fluids, cell lines\)](#)
- Complete the [Lab Safety Checklist](#) prior to the in-person startup walkthrough
- If applicable*, complete any requirements from [EOHW](#)
- If applicable*, contact [OESO Radiation Safety](#)
- Optionally*, review the [Ergonomics resources](#)