EHS Onboarding Essentials

I. University Policy 1005: Health & Safety Policy

☐ Read University Policy 1005 regarding Health & Safety. Ensure all personnel in the workspace have read and understand the policy prior to starting work.

II. Create an SMS (Safety Management System) profile for your lab space(s)

☐ Follow this link for SMS information and to create a profile. Detailed instructions on how to use the SMS can be found here.
☐ Complete the Safety Assessment Tool before proceeding.

To create a comprehensive SMS profile:

☐ For workspaces using any chemicals, select Chemical Registration.
☐ PIs and lab personnel should complete the Medical Survey Questionnaire to receive information about required medical reviews and services (if necessary) based on your work. If a respirator is needed, medical clearance will be required.
☐ Add all personnel (faculty, staff, students, and volunteers) to the training tab.
☐ Assign required training to your lab. The training will be recommended once the Safety Assessment Tool (above) is completed.

SMS Reminders:

Once the workspace SMS profile is created, complete and submit the chemical registration (if this is a shared space, ensure that all other PIs using the space have submitted their chemicals in their chemical registration).

III. Institutional committees

If any work involves, animals, biological materials, or human subjects, please contact the appropriate committee below prior to starting work.

☐ Institutional Animal Care and Use Committee (IACUC):

Reach out to members of the ACUP team for more information on obtaining necessary approvals by emailing iacucadmin@vt.edu.

NOTE: Any changes or deviations to your currently approved IACUC protocol must be revised and amended through IACUC before proceeding.

☐ Institutional Biosafety Committee (IBC):
IBC approval may be required prior to initiating work with biological agents and certain toxins. Please contact the IBCP office (ibc@vt.edu) or submit an IBC Activities Determination request.

**NOTE:** Changes or additions to the scope of work are anticipated, contact the IBC Program Office (ibc@vt.edu) to confirm whether an IBC approval is needed prior to proceeding with your research activities.

☐ **Institutional Review Board (IRB):**

Federal regulations require all research involving human participants undergo review by a board of scientific and faculty peers, the Institutional Review Board (IRB), which is supported by the Human Research Protections Program (HRPP). Please contact irb@vt.edu for more information or submit a Human Subjects Research Determination Requests.

☐ **Radiation Safety Committee (RSC):**

The Nuclear Regulatory Commission (NRC) requires an established radiation safety program, a designated Radiation Safety Officer, and a Radiation Safety Committee. Before attempting to use or procure any ionizing radiation (either radioactive material, sealed-source radioactive material, or X-ray producing equipment), authorization must be granted through the university Radiation Safety Committee. Please contact the University Radiation Safety Officer, Donald Conner (dcon@vt.edu) for more information.

IV. Contact Information

☐ Complete an Emergency contact sheet and post by all entrance doors.

V. Waste Management

☐ Request containers from EHS (through the SMS) or purchase through your department.

**Note:** When available, EHS may supply the following: blue bags, solid chemical debris bins, red biological sharps containers, chemical sharps containers (“cookie jars”), liquid chemical waste carboys, and regulated medical waste (RMW) boxes and liners. For biological labs, EHS may supply the first solid biohazard waste step-can; additional containers are the lab’s responsibility.

Once waste is generated, submit a waste pick up request through the SMS as soon as possible.

☐ Ensure that hazardous waste containers are appropriately labeled for their designated waste streams.

*Print the following charts, reminders, and response guides and place in a visible location.*

☐ Waste reminders
☐ Chemical Waste Chart
☐ Biological Waste Chart
Radioactive Waste (RAM) Information
Hazardous Waste Labels
Waste Labeling Information
Spill & Emergency Response Procedures

VI. Radioactive Materials (RAM) and X-ray Instrumentation Planning

**Note:** The University Radiation Safety Officer (RSO) must be contacted before any changes to RAM and/or X-ray areas or protocols occur.

- Submit a diagram of the new lab (with radioactive use space and proposed storage areas clearly marked) to the RSO.
- Request containers from RSO to pack radioactive items for move. **Note:** All equipment must be surveyed and documented free of contamination before moving. All such verified items can be moved by laboratory personnel. Any items showing radiation contamination or containing RAM must be managed by the RSO.
- Arrange for the RSO visit to review the space for approval. The RSO will provide appropriate signage and assist with the move of any contaminated items or those containing RAM to the new space.
- Notify the RSO of any relocation related to X-ray instruments (excluding those designated as portable by State guidelines). This includes both diagnostic and analytical machines. All X-ray equipment must be surveyed and certified after a move before use can resume.

VII. Laser Use and Registration

- Contact EHS if lasers or UV sources will be installed or relocated.
- Lasers must be registered in the SMS. This registration triggers an inspection by the Laser Safety Officer (LSO) that must be completed prior to equipment use.

VIII. Workspace Documents

Depending on the activities occurring in the workspace, one or more of the following documents may need to be developed and/or kept in the space. Contact EHS with questions regarding which document type is needed.

- **Chemical Hygiene Plan (CHP) or Hazard Communication Plan (HazCom):** Please fill out lab-specific portion of the CHP and keep it in the laboratory. Everyone in the lab must read and sign the training sheet for the CHP. PIs are responsible for providing lab-specific training to all lab members (including other faculty, staff, students, and volunteers).
**Note:** A copy of the full CHP is not required in the lab; however, the completed lab-specific section of the CHP and the training signature pages **must** be completed and kept in the lab area.

- **Safety Data Sheets (SDSs):** Copies of the most up-to-date SDS for all chemicals present in the lab must be on record. Physical copies of the SDS may be kept in a binder in the laboratory, or they may be kept electronically on a communal computer as long as all lab members have access and do not have to rely on Internet access to download and/or open the files.

  **Note:** If SDS are electronically stored, steps to access them and where they are stored should be written in the lab-specific portion of the CHP.

- **Biosafety Manual:** If the laboratory is approved for BSL-1 and/or BSL-2 work, a copy of the Lab-Specific Biosafety Manual ([LSBM](#)) must be kept in the lab, regardless of whether an IBC approval is required. Keep all training signature pages with the copy of your LBSM in your lab.

  **The LSBM refers to the University Biosafety Manual which is an online reference for all labs using biological materials.**

  **Note:** If the work does not require an IBC application, please complete the [BSL-1 self-inspection](#) checklist and keep a record of the self-inspection in the LSBM.

- **Training:** Training is required for all personnel, including faculty, staff, post-docs, graduate students, undergraduate students, and volunteers. Training is determined either by using the online [EHS Safety Survey](#) tool or consulting with EHS personnel. Training must be up-to-date and should be completed as soon as possible.

  **IX. Shipping and Receiving Materials**

- **Shipments (Including Exporting or Importing Materials):** If it is necessary to ship chemicals and/or biological materials, contact EHS as soon as possible to allow for correct categorization of the materials.

  **Note:** Hazardous materials require a certified/trained shipper for packaging and shipping in accordance with federal and international transportation & shipping regulations (DOT & IATA). EHS provides online training for Exempt Specimen Shipping and Dry Ice shipping only. All hazardous materials will need to be shipped through EHS.

- **Material Transfer Agreements (MTAs):** The [Office of Sponsored Programs](#) reviews and executes many types of research-related contracts and agreements. Please contact [ospcontracts@vt.edu](mailto:ospcontracts@vt.edu) for more information.

- **Permits:** Please note that importation or transportation of certain materials to or from a location may be regulated by one or more regulatory agencies and may require an import/transport permit. Contact EHS if you have any questions or require assistance. Some of the regulatory entities requiring permits include, but are not limited to:
USDA/APHIS permits may be required for import, transport or export of animal and animal products, biotechnology products (including genetically engineered organisms), and plants, organisms, and soil.

- Please consult the VS Permitting Assistant

U.S. Fish & Wildlife Service permits may be required to import or export wildlife or wildlife products.

CDC Import Permit Program (IPP) materials requiring import permits include:
- Infectious biological agents capable of causing illness in humans
- Materials known or reasonably expected to contain an infectious biological agent
- Vectors of human disease (such as insects or bats)
- See Do I need an import permit? for more information.

CITES: Regulates import, export, or re-export any living or dead plant or animal (or any of its parts) that is listed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Department of Commerce: Issues licenses for the exportation of biological agents of human, plant and animal diseases.

Controlled Substances: The use of controlled substances is regulated by both the U.S. Drug Enforcement Agency (DEA) and the Virginia Board of Pharmacy (VBP). Please follow the guidelines for applying for all required licenses and disposing of any expired or unnecessary substances.

X. General Workplace Safety Information

- Review locations of safety equipment in the workspace (fire extinguishers, eyewashes, emergency showers, etc.) and ensure all personnel know their locations and proper use.

- Designate individuals responsible for weekly eyewash tests and monthly fire extinguisher checks for the workspace and ensure these are documented and initialed.

- Ensure first aid and spill kits (chemical, biological, etc.) are readily available and stocked. Designate locations that are visible and easily accessible. Communicate kit locations and review spill procedures with personnel.

- Designate Personal Protective Equipment storage areas in the workspace and communicate the location to personnel.

- Segregate chemicals (including compressed gases) by hazard class for storage. Alphabetical or CAS number segregation solely does not ensure safety. Refer to chemical incompatibilities for more information.

- Flammable materials must be stored in labeled flammable cabinets / flammable-rated refrigerators. Storage of flammable materials outside of flammable cabinets, such as on the bench, must not exceed the amount that can be used in one day’s operation.
☐ **Ensure appropriate labeling** of refrigerators, incubators, etc. Labels may include *Biohazard, No Food / Drink, Not for Flammable Materials*, etc. This includes labeling all equipment used with BSL-2 materials with biohazard stickers. Biohazard stickers can be requested through EHS.

☐ **Maintain 3 feet** of clearance in all aisles.

☐ **Storage requirements for ceiling clearance** are 18” for rooms with sprinklers and 24” for rooms without sprinklers.

☐ **Electrical panels and disconnects** should be kept clear.