Guidelines for Laundering Laboratory Personal Protective Equipment
Handling Potentially Contaminated Laundry

Regular cleaning of reusable personal protective equipment is required. Laboratory coats and other PPE should never be brought home to launder given safety and regulatory considerations even if not knowingly contaminated. Regulations dictate that the employer must provide a means for cleaning and decontaminating the PPE.

In the course of working in the laboratory, there exists a potential to contaminate one's lab coat or other protective equipment. This contamination may be from biological, chemical or radiological materials. The purpose of these guidelines is to provide guidance on how to handle your personal protective equipment after such an incident. The information is contaminate-material specific (biological, chemical, radiological or mixed). Follow department specific procedures when available.

Use minimal handling and agitation to remove the PPE. Disposable PPE should be immediately discarded into the proper waste stream for the contaminant. There should be minimal risk for street clothes to become contaminated if proper PPE is worn. However, should street clothes become contaminated, follow these guidelines.

**Use of laundry service vendor**

If your department uses a vendor to service and clean lab coats, it is your responsibility to

- ✓ Verify with the laundry contractor that they are capable and willing to launder contaminated clothes and that their employees observe universal precautions when handling contaminated laundry
- ✓ If employees of the contractor do not observe universal precautions then the potentially contaminated laundry must be placed into color-coded and labeled laundry bags or handled on-site
- ✓ Inform the laundry contractor that laundry may be contaminated

If your department uses a laundry service, educate yourself on this vendor's standard operating procedure. In general, biologically contaminated lab coats being sent out to a vendor, must be bagged separately from soiled lab coats. The contaminated lab coat is required to be placed into a red bag.

**In-house laundry facility**

If your department does not utilize a vendor to clean the lab coats, a facility to clean the PPE on campus must be available (an in-house laundry facility). Some departments have a washer and dryer provided for this purpose. Contaminated materials must be laundered separately from routine laundering.

**Biological materials**

Biological materials are divided into two general categories:

Category 1 - Lower risk of disease transmission
Biological materials in risk group 1 (BL1 research) agents and human materials
Category 2 – higher risk of disease transmission
Infectious agents within Risk group 2 or higher

The categories are based on the perceived risk of exposure and approximate titer of the potential exposure. If there is considerable contamination with category 1 materials, the clothes should be handled at category 2.

Category 1 – in-house laundry

Decontaminate clothing with an appropriate disinfectant or by autoclaving. Clothing potentially contaminated with microorganisms in spore form must be autoclaved.

If using disinfection as a means of decontamination, treat area of contamination and surrounding area with disinfectant for label-specified dilution and contact time.
If autoclaving, autoclave clothing in a tray but do not put water in the tray with the lab coat. Rather, put a second tray into the autoclave and add water to this tray.

After clothing is decontaminated (by disinfection or autoclaving), proceed with routine laundering in the washing machine with detergent to aid physical removal of decontaminated biological material.

Category 1 – laundry service vendor
Contact the vendor to alert. The contaminated lab coat is required to be placed into a red bag next to the general collection area.

Category 2 –
All materials such as lab coats must be autoclaved prior to being taken to any laundry facility (in-house or vendor).

**Chemical contamination**
The method of handling will depend on the type of chemical contaminant and the amount of contamination.

If the chemical is regulated as a hazardous waste and/or has health and safety hazards and there is more than a minute amount of contamination, the PPE must be bagged and prepared for disposal via the chemical hazardous waste stream. Download the hazardous waste label from the Office of Research Compliance Standard Operating Procedures link, label the bag containing the materials and call the number at the bottom of the tag to arrange pick-up.

If the chemical is not regulated as hazardous waste and does not have unique health and safety consideration, wash the contaminated area in the laboratory sink and rinse well.

**Radiological materials**
In general, lab coats contaminated with radioactive material should be set aside in a plastic bag and labeled as "radioactive". Isotope and date should also be included on the label. Radiation Safety should then be contacted to assess and address the situation. For very minor spots of contamination (a small hot spot on a sleeve for example), trained personnel (radiation user) can attempt to wash the spot with soap in an approved radioactive materials sink. A clean lab coat, safety goggles and double gloves should be worn during this process. A survey should then be conducted of the sink and lab coat in question. Lab coats contaminated with tritium may not be handled in this manner. Under no circumstances should contaminated lab coats be placed into the laundry stream.

Any cases of contaminated personal clothing or other articles (notebooks, backpacks, shoes, rings, watches, etc…) must be reported to radiation safety so that they may be assessed and addressed. In such cases, there is a serious potential for cross contamination.

**Mixed-**
Biological and chemical - Biological material must be inactivated before chemical handling methods are followed. When in doubt about the safety of autoclaving chemicals, please consult the MSDS.

Biological and radiological - Contact radiation safety for specific information regarding the required procedure and safety consideration of autoclaving isotopes

Chemical and radiological – Follow radiation guidelines first; do not spot wash if there is significant hazardous chemical contamination