

What to Expect from a Laboratory Visit From the Office of Chemical Safety

The Laboratory Visit Program is an educational and advisory opportunity designed to improve the overall safety of campus laboratories. The program utilizes the expertise of UW-Madison's Environmental Health and Safety Department to identify potential safety hazards and to raise the level of awareness of Principal Investigators (PI's) and lab staff on the safety and regulatory requirements for their specific labs. It is also an outlet for faculty, staff, and students to bring their questions and concerns to EH&S staff.

Areas of Review:

- **Documentation** (training records, Standard Operating Procedures, Laboratory Chemical Hygiene Plan)
- **Egress and Housekeeping**
- **Emergency Equipment**
- **General Safety** (machine guards, refrigerators, electrical safety)
- **Chemical Safety** (storage, usage, labeling)
- **Compressed Gases**
- **Disposal of Chemical Waste and Unwanted Chemicals**
- **Personal Protective Equipment (PPE)**
- **Ventilation and Engineering Controls**
- **Regulatory codes and other requirements** (OSHA, EPA, Building Codes, university requirements)

How We Do It:

A review of the laboratory requires the presence of the PI or other knowledgeable person. We need to understand the processes in the lab in order to do an effective review of your lab's operations. We will walk through the lab spaces together and use the *Laboratory Safety Visit Checklist* (which is attached to this document) to ensure that we cover some of the more basic requirements of laboratory safety. There is also a [PowerPoint presentation](#) that goes question by question through the checklist to explain what we are looking for.

At the completion of the Lab Visit:

After we have completed the *Laboratory Safety Visit Checklist* we will discuss what each lab is doing well along with areas that may need improvement. A written report with our recommendations will be sent to the PI and/or Lab Manager. The report will itemize any issues that we see and include suggestions for improvements – most of which can be accomplished quickly and at little cost to the laboratory. Some of the issues identified may require more effort from EH&S staff and the PI and therefore may take more time to implement. EH&S staff will work with you to provide solutions to identified issues.

Chemical Safety Laboratory Safety Visit Checklist

Principal Investigator: _____

Lab Manager/ Chemical Hygiene Officer: _____

Building: _____ Room #: _____

Yes	No	NA	
			Documentation
<input type="checkbox"/>	<input type="checkbox"/>		Is the emergency door card present and up to date?
<input type="checkbox"/>	<input type="checkbox"/>		Is a Chemical Hygiene Plan available?
<input type="checkbox"/>	<input type="checkbox"/>		Are laboratory Standard Operating Procedures available for all processes?
<input type="checkbox"/>	<input type="checkbox"/>		Are Safety Data Sheets (SDS) readily available?
<input type="checkbox"/>	<input type="checkbox"/>		Is the laboratory's chemical inventory available?
<input type="checkbox"/>	<input type="checkbox"/>		Have employees taken Chemical Safety Training, or received training in General Safety Practices and the OSHA Laboratory Standard?
<input type="checkbox"/>	<input type="checkbox"/>		Have employees received training in Lab-Specific Procedures and Emergency Response (spills, exposures)?
<input type="checkbox"/>	<input type="checkbox"/>		Are training records available?
			Egress and Housekeeping
<input type="checkbox"/>	<input type="checkbox"/>		Are egress pathways kept unobstructed and free from trip hazards?
<input type="checkbox"/>	<input type="checkbox"/>		Is the consumption or storage of food or beverage prohibited in the laboratory?
<input type="checkbox"/>	<input type="checkbox"/>		Are benchtops and working surfaces kept clean and uncluttered?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are glass and other "sharps" disposed of appropriately?
			Emergency Equipment
<input type="checkbox"/>	<input type="checkbox"/>		Is an emergency safety shower and eyewash station readily available for immediate use?
<input type="checkbox"/>	<input type="checkbox"/>		Is an emergency eyewash station operational, inspected and flushed weekly?
<input type="checkbox"/>	<input type="checkbox"/>		Are eyewashes, emergency showers, fire extinguishers, & electrical panels kept accessible and unobstructed?
<input type="checkbox"/>	<input type="checkbox"/>		Is a chemical spill kit readily available and adequate for the work being performed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do sprinklers have at least 18 inches of unobstructed clearance?
<input type="checkbox"/>	<input type="checkbox"/>		Is an appropriate fire extinguisher available?
			Chemical Safety
<input type="checkbox"/>	<input type="checkbox"/>		Are all chemicals stored according to compatibility?
<input type="checkbox"/>	<input type="checkbox"/>		Are flammable, corrosive, toxic or reactive chemicals stored in approved chemical storage cabinets or locations?
<input type="checkbox"/>	<input type="checkbox"/>		Are all stored chemical containers kept closed, not leaking and in good condition?
<input type="checkbox"/>	<input type="checkbox"/>		Are all containers labeled to identify the contents and any applicable hazard warnings?
<input type="checkbox"/>	<input type="checkbox"/>		Are all hazardous chemicals stored at or below eye level?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are flammable liquids that require refrigeration stored in approved refrigerators or freezers?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are hazardous, liquid chemicals stored in a refrigerator or freezer kept in secondary containment?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are flammable liquids in excess of 10 gallons stored in a flammable storage cabinet?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are peroxide forming reagents dated when first opened?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are peroxide forming reagents disposed of or tested at or before the expiration date?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are precautions & appropriate PPE used when working with Perchloric or Hydrofluoric Acid?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are waste carboys and surplus chemical containers properly labeled and have the contents been identified?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are waste containers kept closed and stored away from drains or in secondary containment?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are Particularly Hazardous Substances (substances of high acute toxicity, select carcinogens or reproductive toxins) only used with prior approval, using appropriate control measures and in a posted, designated area?
Yes	No	NA	Compressed Gasses
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are compressed gas cylinders properly labeled?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are compressed gas cylinders adequately secured and stored by compatibility?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are compressed gas cylinders transported using a hand truck?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are compressed gas lines and fittings on equipment checked for problems regularly?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are High-Hazard Gas Cylinders used only after approval from EH&S?
Yes	No	NA	Personal Protective Equipment (PPE)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are lab coats, safety glasses, splash goggles and chemical protective gloves available?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is reusable PPE maintained and stored in clean and serviceable condition?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have PPE hazard assessments been conducted for job tasks that require PPE?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is appropriate eye protection worn at all times?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are lab coats required by all personnel when a chemical hazard exists?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are opened toed shoes prohibited in the laboratory?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have employees that use a respirator been trained, fit tested and medically cleared?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are appropriate gloves selected and worn when a risk of skin contact to a hazardous chemical exist?
Yes	No	NA	Ventilation and Engineering Controls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are fume hoods annually certified and labeled with a current inspection sticker?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are chemical fume hoods kept clean and not used for storage of equipment or chemicals?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When chemical fume hoods are in use, are hazardous materials kept at least 6 inches behind the plane of sash and the sash is kept as low as possible?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do you use a snorkel trunk or chemical fume hood when operating equipment or conducting a process that emits hazardous vapors?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are cryogenics used and stored in a well ventilated location?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is laboratory equipment properly safeguarded (i.e. guards, electrical, interlocks, etc...)?