Laboratory Personal Protective Equipment (PPE) Hazard Assessment Tool

This tool is designed to:

- Identify and document hazards in your lab and the required PPE to minimize exposure.
- Document the required completion of laboratory-specific PPE training.

The Principal Investigator (PI) / Lab Supervisor may assign a designee to perform or assist in the above duties but must ensure they are carried out.

Section 1: Laboratory Information

<table>
<thead>
<tr>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Investigator (PI) / Lab Supervisor</td>
</tr>
<tr>
<td>Phone Number, E-mail, Office Number</td>
</tr>
<tr>
<td>Building / Lab Rooms</td>
</tr>
</tbody>
</table>

Section 2: PPE Assessment

1. Assess potential hazards and appropriate PPE for laboratory operations under your supervision.
   a. Include a walk-through survey of lab areas.
   b. Use the checklist below.
      - Check the corresponding boxes for the operations/tasks your lab conducts.
      - Use the section at the end of the checklist to include any hazards and PPE not covered in the form.

2. Complete and sign the “Certification of PPE Assessment.” Keep a local copy.
3. Update the PPE assessment when new hazards are introduced into your work area.

For further technical guidance and assistance with PPE selection, consult with UW Safety at 766-3277.

Chemical Hazards

<table>
<thead>
<tr>
<th>Activities Performed in the lab?</th>
<th>Lab Operation/Task Involving(^1)</th>
<th>Applicable PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes ☐ No</td>
<td>Flammable liquids</td>
<td>Goggles or safety glasses + face shield</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flame / Chemical Resistant lab coat, may be appropriate depending upon the quantity (&gt; 4L) or the task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Appropriate chemical-resistant gloves</td>
</tr>
</tbody>
</table>

\(^1\) Consult with Chemical Safety Specialist 766-2649
| ☐ Yes ☐ No | Corrosive liquids | • Goggles or safety glasses + face shield  
• Chemical Resistant lab coat (Use chemical-resistant apron if splash potential exists.)  
• Appropriate chemical-resistant gloves |
| ☐ Yes ☐ No | Cryogenic liquids or dry ice (including working with cryogenic Dewar’s) | • Goggles or safety glasses + face shield  
• Chemical Resistant lab coat  
• Insulated cryogenic gloves |
| ☐ Yes ☐ No | Compressed Gases | • Safety glasses  
• Chemical Resistant lab coat  
• Gloves, as needed (e.g., work gloves when handling cylinders, chemical-resistant gloves when making or breaking connections with non-inert gases) |
| ☐ Yes ☐ No | Pyrophoric or water reactive compounds (or highly exothermic reactions) | • Goggles or safety glasses + face shield  
• Flame / Chemical Resistant lab coat  
• Appropriate chemical-resistant gloves (Additional fire resistant gloves may be necessary, depending on the task.)  
• Non-synthetic street clothing |
| ☐ Yes ☐ No | Explosive compounds | • Goggles or safety glasses + face shield  
• Flame / Chemical Resistant lab coat  
• Heavyweight gloves, such as anti-static PVC gauntlets  
• Engineering control: Use blast shield.  
• Non-synthetic street clothing |
| ☐ Yes ☐ No | Engineered nanomaterials | • Goggles or safety glasses + face shield  
• Disposable @Tyvek-type coveralls or Chemical Resistant lab coat  
• Appropriate chemical-resistant gloves |
| ☐ Yes ☐ No | Particularly hazardous substances, including select carcinogens, reproductive toxins, and substances with a high degree of acute toxicity | • Goggles or safety glasses + face shield  
• Chemical Resistant lab coat  
• Appropriate chemical-resistant gloves |
| ☐ Yes ☐ No | Chemically preserved animal and/or human specimens | • Safety glasses  
• Gown or Chemical Resistant lab coat  
• Appropriate chemical-resistant gloves |
| ☐ Yes ☐ No | Hazardous chemical not in one of the above special categories | • Goggles or safety glasses + face shield  
• Chemical Resistant lab coat  
• Appropriate chemical-resistant gloves |

**Biological Materials**

<table>
<thead>
<tr>
<th>Activities Performed in the lab?</th>
<th>Lab Operation/Task Involving¹</th>
<th>Applicable PPE (in addition to proper street clothing²)</th>
</tr>
</thead>
</table>
| ☐ Yes ☐ No | Working with biological agents or recombinant DNA classified as Biosafety Level 1 | Consult with Biological Safety Specialist 766-2723  
No PPE required. However, if working in conjunction with another hazard (e.g., flammable liquids), wear appropriate PPE for that hazard. |

¹ Consult with Biological Safety Specialist 766-2723
² Consult with Industrial Hygiene Specialist 766-2975

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| ☐ Yes ☐ No | Working with biological agents or recombinant DNA classified as Biosafety Level 2 | • Goggles or safety glasses + face shield  
• Barrier Fluid Resistant lab coat  
• Latex or nitrile gloves |
| ☐ Yes ☐ No | Working with infectious agents or recombinant DNA classified as Biosafety Level 2+ | • Goggles or safety glasses + face shield  
• Disposable gown or Barrier Fluid Resistant lab coat at  
• Latex or nitrile gloves  
• Respirator as determined by protocol review; contact UW Safety for assessment 766-3277 |
| ☐ Yes ☐ No | Working with Infectious agents or recombinant DNA classified as Biosafety Level 3 | • Goggles or safety glasses + face shield  
• Full disposable gown or Tyvek suit  
• Shoe cover or dedicated shoes  
• Latex or nitrile gloves (double)  
• Respirator as determined by protocol review; contact UW Safety for assessment 766-3277 |
| ☐ Yes ☐ No | Human or non-human primate blood and other body fluids, tissues or cells, or blood borne pathogens (BBP) | • Goggles or safety glasses + face shield  
• Barrier Fluid Resistant lab coat  
• Latex or nitrile gloves |
| ☐ Yes ☐ No | Live Animals (Animal Biosafety Level 1 or Risk Category 2 animals) | • Goggles or safety glasses + face shield  
• Barrier Fluid Resistant lab coat  
• Latex, nitrile, or vinyl gloves (+ wire mesh gloves as appropriate)  
• Consult with UW Safety for N95 respirator assessment, 766-3277  
• In the space provided at the end of the checklist, list any additional or modified PPE required by (1) IACUC protocol or (2) as determined by protocol review; contact UW Safety (766-3277). |
| ☐ Yes ☐ No | Live Animals (Animal Biosafety Level 2 or Risk Category 1 animals) | • Goggles or safety glasses + face shield  
• Disposable gown, hair cover, shoe cover, and surgical mask  
• Latex, nitrile, or vinyl gloves (+ wire mesh gloves as appropriate)  
• In the space provided at the end of the checklist, list any additional or modified PPE required by (1) IACUC protocol or (2) as determined by protocol review; contact UW Safety (766-3277). |
### Radiation

<table>
<thead>
<tr>
<th>Activities Performed in the lab?</th>
<th>Lab Operation/Task Involving¹</th>
<th>Applicable PPE (in addition to proper street clothing²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes ☐ No</td>
<td>Unsealed radioactive materials or waste</td>
<td>- For radionuclide-specific PPE</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
<td>Class 3B or 4 laser</td>
<td>- Appropriately laser safety goggles</td>
</tr>
<tr>
<td>☐ Yes ☐ No</td>
<td>Laser(s) modified by optics</td>
<td>- Appropriately laser safety goggles</td>
</tr>
</tbody>
</table>
| ☐ Yes ☐ No | Ultraviolet (UV) radiation (from sources other than lasers) | - UV-blocking eye protection or UV-blocking face shield  
- Appropriate UV blocking gloves |
| ☐ Yes ☐ No | Infrared-emitting equipment | - Appropriately-shaded goggles for infrared radiation |

### Physical Hazards

<table>
<thead>
<tr>
<th>Activities Performed in the lab?</th>
<th>Lab Operation/Task Involving¹</th>
<th>Applicable PPE (in addition to proper street clothing²)</th>
</tr>
</thead>
</table>
| ☐ Yes ☐ No | Glassware (or other vessels) under pressure or vacuum | - Goggles or safety glasses + face shield  
- Chemical-resistant apron for high risk activities  
- Appropriate chemical-resistant gloves  
- Engineering control: Use blast shield, as appropriate. |
| ☐ Yes ☐ No | Working with knives, scalpels, razor blades, etc. or handling broken glass | - Cut-resistant gloves |
| ☐ Yes ☐ No | Centrifuge | - Goggles or safety glasses + face shield  
- If centrifuging hazardous materials, wear additional PPE to match the hazard. |
| ☐ Yes ☐ No | Sonicator or other loud equipment | - Ear plugs or earmuffs may be required |
| ☐ Yes ☐ No | Removing freezer vials from liquid nitrogen | - Goggles or safety glasses + face shield  
- Chemical Resistant lab coat  
- Insulated cryogenic gloves |
| ☐ Yes ☐ No | Handling hot liquids / equipment (e.g., autoclaved materials, heated glassware, water or oil bath) | - Goggles or safety glasses + face shield  
- Chemical Resistant lab coat  
- Thermally insulated gloves (Chemical-resistant gloves underneath, as needed.) |
| ☐ Yes ☐ No | Machinery (e.g., lathes, saws) and hand tools | - Goggles or safety glasses + face shield (If flying fragments or particles generated)  
- Gloves appropriate for hazards (e.g., chemicals, sharp objects)  
  Note: Gloves are not required if there is a potential to become entangled in moving parts  
- Work Practice: Confine long hair/beards to prevent entanglement in machinery (e.g., via bun, pinned-up ponytail or hairnet).  
- Do not wear any loose clothing and jewelry.  
- Hearing protectors, respiratory protection, or safety shoes may be required consult |
### Other Laboratory Operations/Tasks

<table>
<thead>
<tr>
<th>Lab Operation/Task Involving:</th>
<th>Applicable PPE:</th>
</tr>
</thead>
</table>
| Personnel that are not directly involved in the lab operations, but who are at risk for potential exposure to hazardous materials and/or physical hazards | • Chemical Resistant lab coat  
• Goggles or safety glasses + face shield  
• Additional PPE deemed necessary (e.g., if touching contaminated surfaces, wear gloves to match the hazard)  
• Proper street clothing - long pants (or equivalent) that cover legs and ankles, and non-perforated, closed-toed shoes that completely cover the feet |

1. Conduct activities with potential to generate airborne contaminants using appropriate engineering controls (e.g., laboratory fume hood, biosafety cabinet, glove box, local exhaust at workbench). If engineering controls are not feasible, consult UW Safety to determine if the activity presents a respiratory hazard, which may require a respirator; call 766-3277.  
2. Proper street clothing - Long pants (or equivalent) that cover the legs and ankles, and non-perforated, closed-toed shoes that completely cover feet.

### Certification of PPE Assessment

<table>
<thead>
<tr>
<th>Name of person conducting assessment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>Phone Number, E-mail</td>
<td></td>
</tr>
<tr>
<td>Signature (digital):</td>
<td>Date:</td>
</tr>
</tbody>
</table>
Section 3: Laboratory – Specific PPE Training

1. Deliver laboratory-specific PPE training
   Train lab personnel upon their joining the lab or prior to performing work requiring the use of PPE. Training content shall include, but not be limited to:
   a. When and what PPE is required per Section 2: PPE Assessment
   b. Limitations of the PPE
   c. How to properly put on, adjust, wear, and remove PPE
   d. Proper care, maintenance, useful lifespan, and disposal of PPE

2. Training documentation
   a. When lab personnel have demonstrated an understanding of the above training and ability to the use PPE properly, the lab member and trainer must sign below that the PPE training has been conducted.
   b. Maintain training records for at least one year.

2. Provide retraining
   Retraining is required of laboratory personnel when:
   a. Changes in laboratory activities/operations render previous PPE training obsolete.
   b. Inadequacy of laboratory personnel's knowledge or use of PPE is evident.

<table>
<thead>
<tr>
<th>PPE Training Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee Name (printed)</td>
</tr>
<tr>
<td>Trainee Initial</td>
</tr>
<tr>
<td>W#</td>
</tr>
<tr>
<td>Training Date</td>
</tr>
<tr>
<td>Trainer Name (printed)</td>
</tr>
<tr>
<td>Trainer Initial</td>
</tr>
</tbody>
</table>