**APPENDIX L**

**WRITTEN LABORATORY HAZARD EVALUATION & CHECKLIST FOR**

**PERSONAL PROTECTIVE EQUIPMENT (PPE) USE**

PPE, especially when used in a laboratory environment, should be the final step in ensuring workplace hazards are controlled, and complement any/all engineering, administrative, procedural and other safe work practice controls implemented first. Laboratory faculty/supervisors should use this form to facilitate written laboratory hazard evaluations as required by OSHA, to ensure any actual or potential hazards associated with work in teaching, research or other lab work areas are properly identified and remedied, so as to avoid injury or illness.

**The Hazard Evaluation Process**

Step 1

Identify the type of lab or lab-related activity to be evaluated, and list any relevant experiment or process information necessary to provide an overview. You may choose to specify any other procedural controls or limitations to which the evaluation will apply in this section as well (i.e. do’s and don’ts).

Step 2

Identify and describe the types of lab hazards to which personnel may be exposed in the lab, as well as the PPE control measures to be employed, within each potential hazard category (eye/face, hand, body/skin, respiratory, and misc/other hazards). Please be as specific as possible.

* Special note 1—if you intend on using a chemical regulated as a Type 1 PHS, conformance with Sections 7 and 8, and Appendices F and G of the CHP is required. This process includes specific information on PPE requirements associated with the Type 1 PHS, and need not be duplicated within this hazard evaluation.
* Special note 2—if you need additional guidance on chemical compatibility/resistivity for gloves used to protect the hands, look at Appendix K of the CHP, or either of the two resources listed below:
  + [Microflex Glove Chemical Resistivity Guide](http://www.microflex.com/Products/~/media/Files/Literature/Microflex%20Chemical%20Resistance%20Guide.ashx)
  + [Generic Chemical Resistivity Guide](http://www.ehs.okstate.edu/hazmat/gloves5.htm)

Step 3

Certify the completion of the hazard evaluation process in the box on the final page with your signature and date.

**Implementing the Written Laboratory Hazard Evaluation**

Upon completion of the laboratory hazard evaluation, it should be used as follows:

* Train personnel who must wear PPE associated with the hazard evaluation, ensuring you address:
  + Types of PPE to be used during the lab activities, when PPE is necessary and how to obtain it in the lab.
  + How to wear, adjust, and use PPE for this lab.
  + How to properly care/maintain, useful life, and disposal of PPE for this lab.
  + Limitations of the PPE for this lab.
  + Other PPE safe work practices (i.e. avoiding cross-contamination by not wearing PPE outside of lab areas, not contacting computers, phones or the like while wearing gloves, etc.)
* Make the hazard evaluation available and document the conduct of PPE training, as follows:
  + For teaching labs, post the completed laboratory hazard evaluation in the lab itself, or include it as a part of the lab materials. While it is not necessary to document the training of students not covered by OSHA, Appendix C of the CHP may be used for such purposes.
  + For research labs and all other types of lab activity where PPE is to be used, employees or restricted personnel (research students, TA’s, etc.) should possess or have access to a copy of the hazard evaluation within their assigned lab workstation. Training should be documented by including the hazard evaluation with an individual’s completed Appendix D training form.

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| **Appendix L—Written Laboratory Hazard Evaluation & Checklist for PPE Use** | | | |
| **I am reviewing (check the appropriate box)** | **Teaching Lab** | **Course #, Lab Section and Lab/Room #:** | |
| **Research Lab** | **Research Project, PI and Lab/Room #:** | |
| **Other** | **List Relevant Details:** | |
| **Your name (print):** | | | **Dept:** |
| **Lab Activity/Experiment/Process Details:** | | | |

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| **Eye/Face Hazards** | **Chemicals**  **Biological Agents**  **Impact/Flying Debris**  **Thermal/Cryogens**  **Radiological**  **Lasers**  **Welding/Soldering**  **Other:** | **Description of Hazard(s)** | **PPE Required** |
| C:\Documents and Settings\bhansen\My Documents\My Pictures\eye face safety.jpg |  |  |

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| **Hand Hazards** | **Chemicals**  **Biological Agents**  **Thermal/Cryogens**  **Radiological**  **Laceration/Injection**  **Crush/Pinch**  **Other:** | **Description of Hazard(s)** | **PPE Required** |
| C:\Documents and Settings\bhansen\My Documents\My Pictures\hand ppe.jpg |  |  |

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| **Body/Skin Hazards** | **Chemicals**  **Biological Agents**  **Radiological**  **Thermal/Cryogens**  **Laceration/Injection**  **Crush/Pinch**  **Other:** | **Description of Hazard(s)** | **PPE Required** |
| C:\Documents and Settings\bhansen\My Documents\My Pictures\body ppe.jpg |  |  |

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| **Respiratory Hazards** | **Gases/Vapors**  **Fogs/Mists**  **Dusts/Particulates**  **Fumes**  **Bio-Aerosols**  **Nanoparticles**  **Other:** | **Description of Hazard(s)** | | | **PPE Required** |
| C:\Documents and Settings\bhansen\My Documents\My Pictures\resp hazards.jpg |  | | |  |
| **Check appropriate box if respiratory hazards are intended to be controlled wholly through engineering controls:** | | | **Fume Hood**  **Biological Safety Cabinet** | **Glove Box/Isolation**  **Other:** | |

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| **Misc/Other Hazards** | **Electrical**  **Foot/Feet**  **Noise**  **UV/IR Radiation**  **Other:** | **Description of Hazard(s)** | **PPE Required** |
| C:\Documents and Settings\bhansen\My Documents\My Pictures\misc hazards.jpg |  |  |

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| **Certification** | | I hereby certify that the above laboratory hazard assessment was performed to the best of my ability and knowledge, as per OSHA regulations and the Hamilton College Chemical Hygiene Plan, based upon the known or expected hazards present in the lab/lab activity. | | |
| **Signature:** |  | | **Date:** |  |