PPE SELECTION CONSIDERATIONS

Respiratory Protection is needed

When there is:

- Use and exposure to toxic materials, which are not used in an exhausted enclosure.
- Breaking of a toxic or corrosive gas connection (regardless of local exhaust ventilation).
- Need for SCBA use in emergency response.

*Contact EHSC to determine if respiratory protection is needed, the proper type of respiratory protection, and to arrange for medical exams and training (all required by OSHA law)*

Hearing Protection is needed

When there is:

- A high noise level in employee work areas.
- A need to raise your voice at distances of six feet and less.
- A high noise level in areas, which may be entered by employees only occasionally.

*Providing hearing protection to employees is not sufficient. Training and audiograms are also required. Contact EHSC at 515-6862 to determine noise levels and the need for corrective actions.*

Body Protection is needed

When there is:

- Potential for splash.
- Potential for fire.
- Potential for toxic dust contamination (i.e., pesticides).

*Use "Tyvek" or equivalent (don't take contaminated clothing home)*

Incidental handling of chemicals in the facility.

- Hot sparks.
- Changing of containers of pyrophoric liquids/gases.

*Full faceshield, Nomex gloves & lab coat*

Pouring hazardous liquids from greater than one-pint containers in fume hoods.

Pouring high hazard liquids any quantity. (Class 4 hazard due to skin absorption e.g., Phenol, HF)

*Chemical apron sleeves*
Pouring or mixing pesticides.

*Chemical apron sleeves (Read pesticide Label)*

**Face Protection is needed**

When there is:

- Potential for explosion/implosion.
- Potential for corrosive chemical splash
- Potential for flash fire.

*Consult attached Eye & Face Protection Literature.*

**Eye Protection is needed**

When there is:

- Intense heat
- Impact

*Consult attached Eye & Face Protection Literature.*

**Chemicals**

*Consult attached Eye & Face Protection Literature. When reactions have the potential for explosion, lower the fume hood sash and wear a full face shield with neck protection.*

**Intense light**

- Laser
  
  *Use appropriate laser goggles.*
  *Keep spare goggles for visitors.*
  *Cover hands/arms when making beam adjustments (light gloves and long sleeves) when using UV lasers.*

**Welding, Burning and Brazing**

*Consult attached Eye & Face Protection Literature.*

**Visible**

*Use polycarbonate safety glasses. (May need tinting)*

**Ultraviolet**

*Use polycarbonate safety glasses or full face protection.*

**Infrared**

*Use polycarbonate safety glasses. Reassess for heat applications.*

**Maintenance work, stored energy, steam, pressurized chemical lines**

*Use safety glasses, faceshields and follow proper procedures.*

**Electrical Repairs (follow procedures)**

Replacing fuses.
Hot Repairs

Use safety glasses or faceshields.

Hand Protection is needed

When there is:
- Abrasion
- Puncture
- High Temperature
- Low Temperature
- Electrical

Use appropriate PPE for high voltage maintenance according to your electrical safety training.

Chemical

Choose the appropriate number from the matrix below for your hazard-frequency condition. The corresponding recommendations to the matrix numbers are listed below the chart.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>None</th>
<th>Periodic</th>
<th>Routine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses with low hazard chemicals / Class 1</td>
<td>A</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Uses with moderate hazard chemicals / Class 2</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Uses with high hazard chemicals / Class 3 or 4</td>
<td>C</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

A. Use glove, which provides dexterity (choice of material is not important).
B. Use glove, which provides dexterity needed (consider permeation and degradation rating of glove against chemical). Gloves rated F fair are minimally acceptable.
C. Use glove protection against chemical as primary consideration. Gloves which are rated as G (good) for 8 hours are minimally acceptable.
D. Use glove protection against chemical as primary consideration. Gloves which are rated as E (excellent) for 8 hours are minimally acceptable. Seek methods to reduce chemical contact time with glove.

Never immerse gloves in chemical baths - Gloves should be used to provide splash protection only to the greatest extent possible.