

University of Michigan  
**PROTECTIVE CLOTHING FOR ANIMAL CARE AND USE**  
**Minimum Requirements (Nonhuman Primates) and Recommendations (Other Species)**

ANIMAL TYPES	SOILED CAGE TRANSPORT	CAGEWASH AND HUSBANDRY [See "Handling Soiled Animal Bedding"] <sup>1,2</sup>	RESEARCH INVOLVING CONTACT WITH ANIMALS <sup>4</sup>	OBSERVATION OR NON-CONTACT RESEARCH <sup>4</sup>
<b>NONHUMAN PRIMATES (Macaque at all times and all others when in quarantine)</b> [See "Primate Quarantine Procedure"] <sup>1</sup>  <b>REQUIRED!</b>	<ul style="list-style-type: none"> <li>Dedicated uniform with long sleeves and pants<sup>3</sup></li> <li>Exam gloves</li> <li>Eye protection</li> <li>Surgical mask</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform with long sleeves and pants<sup>3</sup></li> <li>Exam gloves</li> <li>Eye protection</li> <li>Respiratory protection required<sup>2</sup></li> <li>Shoe covers where posted</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Long pants</li> <li>Exam gloves</li> <li>Eye protection</li> <li>Surgical mask</li> <li>Shoe covers where posted</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Long pants</li> <li>Exam gloves</li> <li>Eye protection</li> <li>Surgical mask</li> <li>Shoe covers where posted</li> </ul>
<b>NONHUMAN PRIMATES (Not Macaques, Not in Quarantine)</b>  <b>REQUIRED!</b>	<ul style="list-style-type: none"> <li>Exam Gloves</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform<sup>3</sup></li> <li>Exam gloves</li> <li>Surgical mask</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves</li> <li>Surgical mask</li> </ul>	<ul style="list-style-type: none"> <li>Surgical mask</li> </ul>
<b>SPF ANIMALS</b> [See "SPF Rodents"] <sup>1</sup>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform (cage wash) or SPF-dedicated long-sleeved garment (husbandry)<sup>3</sup></li> <li>Exam gloves</li> <li>Respiratory protection recommended<sup>2</sup></li> <li>Shoe covers where posted</li> </ul>	<ul style="list-style-type: none"> <li>SPF-dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves</li> <li>Shoe covers where posted</li> </ul>	<ul style="list-style-type: none"> <li>SPF-dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves</li> <li>Shoe covers where posted</li> </ul>
<b>CARNIVORES</b>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform<sup>3</sup></li> <li>Exam gloves</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>FARM ANIMALS</b> [See "Contagious Ecthyma (Orf) and Q-Fever"] <sup>1</sup>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform<sup>3</sup></li> <li>Exam gloves (sheep, goats, cattle)</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves (sheep, goats, cattle)</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>CONVENTIONAL RODENTS AND RABBITS, AND WILD RODENTS</b>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated uniform<sup>3</sup></li> <li>Exam gloves</li> <li>Respiratory protection recommended<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Dedicated long-sleeved garment<sup>3</sup></li> <li>Exam gloves</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>NON-MAMMALS</b>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated or Disposable Gloves<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

**Definitions:** "Dedicated" means worn only in the animal facility or research laboratory but not in general public areas. "Contact" means contact with animals, animal waste, or soiled caging. "Eye protection" means goggles with closed top, side, and bottom and indirect vents that fit snugly against the face forming a seal around the eyes, thus preventing liquids from splashing or dripping into the eyes. Goggles must meet standards described in 29 CFR 1910.133 Eye and Face Protection and ANSI Z87.1 - 1989. "Respirator" means a NIOSH certified N95 or higher non-powered particulate respirator. Both surgical masks and respirators should be fluid resistant to reduce splash hazards.

**General Note:** Individuals with a history of allergies should consider using respiratory protection (e.g., N95 or higher respirator or biological safety cabinet) to limit exposure to animal allergens which may cause the development or exacerbation of allergic reactions. In biohazard housing areas, biological safety cabinets and/or personal protective equipment (e.g., respirators, face shields) are used whenever procedures with a high potential for creating aerosols are conducted.

**Footnotes:**

<sup>1</sup> See the applicable ULAM protocols referenced for specific protective clothing requirements.

<sup>2</sup> For species indicated, a dump station is recommended for handling animal waste and soiled bedding. If a dump station is not used, eye protection and a respirator are recommended. For other cagewash and husbandry activities where aerosol exposure is not anticipated, a surgical mask is recommended. Note that for personnel exposed to all nonhuman primates or their excreta in quarantine and to all macaque species or their excreta at all times, eye protection and either respirator or surgical mask and dump station are *required*.

<sup>3</sup> **Dedicated garments used in animal care or research may not be laundered at home.**

<sup>4</sup> The recommendations/requirements of this chart should be considered but may not be appropriate or practical for studies conducted in the field.

<sup>5</sup> For terrestrial non-mammals, exam gloves should be worn. For aquatic non-mammals, long-sleeved water-proof gloves should be worn.