

Animal Biosafety Level 2 (ABSL-2) Requirements

Animal Biosafety Level 2 (ABSL-2) builds upon the practices, procedures, containment equipment, and facility requirements of ABSL-1. ABSL-2 is suitable for work involving laboratory animals infected with agents associated with human disease and pose moderate hazards to personnel and the environment. It also addresses hazards from ingestion as well as from percutaneous and mucous membrane exposure.

ABSL-2 requires that:

1. access to the animal facility is restricted
2. personnel must have specific training in animal facility procedures, the handling of infected animals and the manipulation of pathogenic agents
3. personnel must be supervised by individuals with adequate knowledge of potential hazards, microbiological agents, animal manipulations and husbandry procedures
4. biological safety cabinets (BSCs) or other physical containment equipment is used when procedures involve the manipulation of infectious materials, or where aerosols or splashes may be created.
5. Appropriate personal protective equipment must be utilized to reduce exposure to infectious agents, animals, and contaminated equipment. PPE requirements are included on the door signage.
6. All personnel with access to animals in this area must be enrolled in the occupational health program.
7. Personnel must have specific training in animal facility procedures and must be supervised by an individual with adequate knowledge of potential hazards and experimental animal procedures.

The following procedures MUST be performed within a Class II BSC:

1. Inoculation, by any route, of virus/recombinant virus, human cells/cell lines, bacteria/recombinant bacteria or other BSL-2 materials.
2. Blood collection after BSL-2 agent has been administered to an animal
3. Sacrifice and tissue harvest after BSL-2 agent has been administered to an animal.
4. Cage change procedures

Carcass disposal is through the biohazardous waste stream.

1. Working in a BSC, carcasses are placed in a leak-proof plastic bag that is then placed in a second leak-proof bag labeled as biohazardous waste.
2. The outer bag is sealed and then sprayed with an appropriate disinfectant (SporKlenz or Clidox), then transported to the designated carcass disposal cooler where it is placed into a barrel designated as biohazardous or medical waste.
3. All biohazardous waste from carcass disposal coolers is removed and processed by a licensed medical waste contractor (e.g. Stericycle).

ABSL-2 signage must be placed on the door to the animal holding room when BSL-2 agents are in use.

Biohazard labeling of cages: Biohazard labels must be placed on the cage card by the PI or research staff on the day BSL-2 agents are administered. The label must include the biohazard symbol, agent name, date, and PI name.

Approved disinfectants for use in ABSL-2 areas: SporKlenz and Clidox-S. Proper disinfection with SporKlenz includes wetting all surfaces and allowing 10 minutes of contact time. Clidox-S is prepared at a 1:18:1 dilution and must be made fresh every 14 days. Proper disinfection with Clidox-S includes wetting all surfaces and allowing 5 minutes of contact time. Solid surfaces must be wiped with DI or

RO water within 8 hours of treatment with Clidox-S to remove residue and reduce the possibility of corrosion.

Disposal of Solid Waste: Solid waste from ABSL-2 areas is collected in a biohazard bag, which is disposed of through the SteriCycle waste stream.

1. Working in a BSC, solid ABSL-2 waste is placed in a leak-proof plastic bag that is then placed in a second leak-proof bag labeled as biohazardous waste.
2. The outer bag is sealed and then sprayed with an appropriate disinfectant (SporKlenz or Clidox) to wet all surfaces.
3. Following 10 minutes of contact time with the disinfectant, the biohazardous waste bag is transported to the designated medical waste cooler where it is placed into a barrel designated as biohazardous or medical waste.
4. All biohazardous waste from designated medical waste coolers is removed and processed by a licensed medical waste contractor (Stericycle).