

**STANDARD OPERATING PROCEDURES**  
**DIVISION OF COMPARATIVE MEDICINE**  
**UNIVERSITY OF SOUTH FLORIDA**

SOP#: 419.1

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**TITLE:** **Biosafety Level-1 (BSL-1) Rodent Husbandry at the Interdisciplinary Research Building (IDRB)**  
**SCOPE:** All Authorized Personnel  
**RESPONSIBILITY:** Facility Manager and Technical Staff  
**PURPOSE:** To Outline the Proper Procedures for Safe Husbandry Practices for Rodents Housed at ABSL-1 in Conjunction with the Containment of Arthropod Vectors.

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**I. PURPOSE**

1. To outline the proper procedures for safely conducting husbandry of rodents housed under biosafety level 1 (ABSL-1) conditions in conjunction with arthropod vectors.
2. Reduce the risk of exposure of research and animal care staff to biohazardous agents within the animal facility.

**II. RESPONSIBILITY**

1. The Facility Manager is responsible for ensuring:
  - a. That staff contributing to husbandry are adequately trained to perform the husbandry practices described.
  - b. Implementation of the procedures described.
  - c. Animal housing rooms are clearly labeled with the biohazardous agent present, whether native arthropods are present in the housing room, and specific safety practices implemented.
  - d. Appropriate personal protective equipment (PPE) is available.
  - e. Biohazard MSDSs are accessible when available.
  - f. Safety practices have been communicated to the relevant personnel
2. It is the responsibility of the animal care staff to:
  - a. Read, understand, and follow the procedures described.
  - b. Don appropriate PPE and review room signage and MSDSs prior to implementing the procedures described.

**III. PROCEDURES**

1. Before entering Room 482, **assemble all supplies** necessary to complete task.
2. Access to rooms housing BSL-1 rodents that may be exposed to arthropods (i.e., Room #482) is **limited to essential personnel**. **Doors are kept closed** when experimental animals are present, and when appropriate, **locked** when the room is unattended.

3. **Before entering the room review BSL-1 and relevant arthropod signage posted on the door** for PPE requirements and specific practices implemented for the protocol/agent.
4. **Work surfaces within the Class II biosafety cabinet (BSC) are decontaminated** with Sporicidin or Clidox (1:18:1), followed by alcohol rinse, prior to and after each use of the BSC.
5. **Cage changing** As a rule of thumb:
  - a. Intervals of cage change-outs will be determined based on the associated health risk of the agent and animal housing density.
  - b. Cage changing for rodents housed in individually ventilated caging (IVC) may be performed at intervals longer than once a week, but should at least be performed every 2 weeks.
  - c. Rodent **caging is changed-out one cage at a time** and husbandry practices are planned so that the microisolator filter top is removed from the shoe-box cage for the least possible amount of time and frequency.
  - d. When performing IVC microisolator cage change-outs the entire cage and all components are replaced as one unit.
  - e. Any cage excessively soiled will be changed as often as necessary to maintain an acceptable level of sanitation.
  - f. Cage changing will be noted on the **Room Status Sheet**.
  - g. IVC racks are sanitized at intervals determined by the Facility Manager and the frequency is determined based on the associated health risk of the agent and animal housing density.
6. All procedures are carefully performed to **minimize the creation of aerosols**.
7. **Water bottles, sipper tubes and stoppers are sent to the cagewash for weekly sanitation.** Water bottles will be checked daily and replaced as needed to ensure adequate supply is available. **Changing of the bottles is recorded on the Room Status Sheet.**
8. Soiled microisolator **caging is maintained as a unit for transfer to PSY cage-wash for sanitation.** IVC microisolator caging is removed from the IVC rack, placed directly into a transport container, container sealed and sprayed with Sporicidin or Clidox prior to exiting the room, and transported directly to the PSY cage-wash.
9. Protective clothing is removed in housing Room 482, discarded in a red biohazardous container.
10. **Hands washed/sanitized prior to leaving the room.**
11. **When biohazardous waste containers are to be removed/emptied containers/bags are sprayed** with Clidox S or Sporicidin and allowed for appropriate contact time for disinfection (i.e., 5 and 3minutes respectively) prior to removing from Room 482.
12. IVC accessories are changed/sanitized at intervals determined based on animal housing density and associated health risks of agents with consideration of the

following intervals if occupied at maximum capacity and memorialized on the **Ventilated Cage System Maintenance Log:**

- a. Cage top filter-inspect each cage change-out, replace every 6 months and when visibly soiled.
- b. Rack exhaust plenum-clean every 3 months
- c. Air handling unit (AHU) pre-filters- inspect and if necessary clean every 2 weeks, replace every 6 months.
- d. Trolley certification-12 months
- e. AHU Supply and exhaust HEPA filters- as needed (based on vendors recommendation during annual certification).
- f. Trolley decontamination-as needed (based on vendors recommendation during annual certification).

### 13. Room Duties

- a. Upon completion of cage changing, feed and watering, and daily health surveillance, the following tasks are to be performed: (Room duties described below are minimal requirements, additional duties and frequencies are at the Facility Manager's discretion).
  1. Complete **Room Status Sheet** by recording:
    - a. Minimum and maximum IVC rack temperature and humidity (measurements out of the acceptable range are described under the **Health and Environmental Concern** column of the **Room Status sheet** and reported to the Facility Manager via the **Health and Environmental Concern Form**).
    - b. Feed and water are available.
    - c. Caging and equipment changes performed.
    - d. Housekeeping duties performed.
    - e. Significant health or environmental concerns.
    - f. Time of observation and the initials of technician.
  2. Check and replenish supplies (e.g., soap, paper towels) as needed.
  3. Wipe down counter/sink areas with Sporicidin as needed.
  4. Assure any new arrivals are recorded on appropriate **Per Diem Sheets**.
  5. **Record any additions or subtractions made by room technician or research staff as observed (e.g., weanlings, breeding pairs set up/removed, euthanasia, etc.)**
- b. Weekly room duties include:
  1. Clean/disinfect floor with Decon-Spore 200 Plus using a mop handle with a disposable cleaning pad/head.
  2. Wipe down door and door-frame with Sporicidin.
  3. Physically count animals within the room.
- c. Semi-monthly room duties include:
  1. Sanitize all room cleaning equipment within the room with Sporicidin (e.g., mop handle, dust pan, etc.).
- d. Monthly room duties include:
  1. Clean HVAC vents and replace air filters as needed.
  2. Confirm diurnal light timers are accurately controlling animal room lights (HOB0), and record.
- e. Room surfaces and equipment are disinfected at the end of a study.

Approved:

Date: