

Animal Care Services Standard Operating Procedure		
Document No: 14.8	Subject: Procedures for Caring for Mice Housed in Barrier Holding	
Date Issued: October 2009	Revision: 3	Page No: 1

Location: Queen's University

Responsibility: Animal Care Services Staff

Purpose: The purpose of this Standard Operating Procedure (SOP) is to describe the procedures for the care and husbandry of mice housed in the barrier holding rooms.

1. Introduction and Definitions:

- Lights are on a 12:12 cycle, controlled by the Lutron lighting system
- The Barrier rooms have outward directional airflow, with a minimum of 15 ACH
- Mice are housed within a Tecniplast GM500 rack or Tecniplast EM500 rack with cages having an outward directional air flow
- A maximum of 5 mice per cage
- Water is provided by the facility chlorinated automatic watering system and distributed to the individual cages using automatic water valves
- All cages within the facility are autoclaved prior to entry into the facility with autoclaved food
- Cages are changed a minimum of every 2 weeks
- ATS and BSC's are cleaned weekly
- Access into a Barrier room always precedes entry into a room of lower health status

Abbreviations: Air Changes per Hour **ACH**, Animal Transfer Station **ATS**, Biological Safety Cabinet **BSC**, Animal Care Services **ACS**, Principal Investigator **PI**

2. Daily Tasks:

- Prior to entering the holding room, check the room temperature and humidity on the hallway monitor and record the information on the room sheet
 - Check the H₂O pressure reducing system, normal range should be between 3-7 psi. If outside normal range, notify the Associate Director, Animal Care Services
 - Turn on the ATS or BSC and let it sit for a minimum of 5 minutes prior to use
 - Ensure that you are familiar with any Special Requests that are posted in the room
 - Clean all surfaces within the ATS or BSC with 0.5% accelerated hydrogen peroxide
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Animal Care Services Standard Operating Procedure		
Document No: 14.8	Subject: Procedures for Caring for Mice Housed in Barrier Holding	
Date Issued: October 2009	Revision: 3	Page No: 2

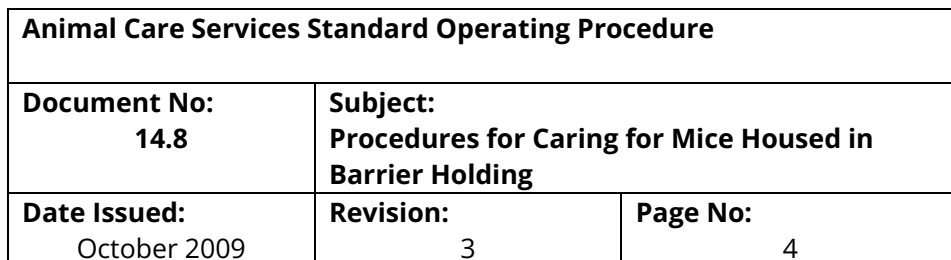
- f) Once the ATS or BSC has been running for 5 minutes and is disinfected, you may proceed with bringing in supplies
- g) All cages are checked daily by observing the cage while it remains on the rack, including breeding cages
- h) Cage side observations include the following:
 - i. Observe the whole cage environment, including the food level, presence of a water spigot, bedding quality, signs of stool or feces, signs of nesting
 - ii. Are the mice in the nest? If yes, then mice are ok
 - iii. Are they outside the nest? If yes, take the opportunity to assess if they are active and performing normal behaviours, such as feeding or climbing or are they isolated and hunched, indicating a potential health concern?
 - iv. If you have a concern with any one of the factors above, then the cage is removed for further assessment
 - v. Unhealthy mice present with clinical signs, for example, hunched posture, squinted or closed eyes, splayed ears, piloerection, abnormal gait
- i) Document any health concerns as per *SOP 14.3 Clinical Health Reports - Rodent Records*
- j) Record any new litters observed on the yellow breeding card located in the cage card holder
- k) If pups have reached weaning age, place a "Wean" tag on the cage. If pups are beyond weaning age or a second litter is born, contact the cage card contact via email, requesting weaning
- l) If a mortality is found, the following steps are taken:
 - i. Mortalities are recorded on the electronic mortality/morbidity report and the mortality is reported via email to the Cage Card Contact
 - ii. All dead animals are removed from the cage, placed within a body bag, and the cage card is removed from the holder
 - iii. If the mouse has an identifier, make sure that the appropriate cage card is removed
 - iv. The date of death is added to the cage card and clipped to the ATS/BSC for the lab to retrieve
 - v. The carcass is placed within the refrigerator when leaving the facility
- m) There should be NO opening of the cage or exposure of the mice to room air, cages are only opened in the ATS or BSC

Animal Care Services Standard Operating Procedure		
Document No: 14.8	Subject: Procedures for Caring for Mice Housed in Barrier Holding	
Date Issued: October 2009	Revision: 3	Page No: 3

- n) Any wet, excessively soiled or orts filled cage is flagged for changing independent of the cage change schedule
- o) Any flooded cage must be changed and recorded on the electronic cage flood log
- p) Food is topped-up daily as necessary
- q) Room supplies are restocked as needed
- r) Technical rooms associated with Barrier rooms must be checked daily, restocked and cleaned as necessary
- s) Sweep floors and mop with 0.5% activated hydrogen peroxide
- t) Garbage should be removed and placed in the waste collection bin in the anteroom to the facility

3. Bi-Weekly:

- a) All mice are housed on the ventilated rack up to 5 mice per box and cages changed a minimum of every 2 weeks
 - b) When performing a cage change:
 - i. Place new sterile cage in the ATS or BSC
 - ii. Place "dirty" cage within the hood
 - iii. Remove the filter lid from the dirty cage and remove the filter lid from the new cage
 - iv. To maintain sterility, make sure that the inside surface of the new lid does not come in contact with a hood surface
 - v. Clean hands with 0.5% accelerated hydrogen peroxide foam
 - vi. Transfer mice to clean cage, checking sex of every mouse and making sure there are no obvious health problems
 - vii. Transfer the old nesting material to the new cage, only adding new nesting material if the old is too soiled or compromised to the point that the mice can't build a new nest
 - viii. Transfer the igloo to the new cage, replacing the igloo if grossly contaminated
 - ix. Transfer the old food to the new wire food hopper and top-up food within the cage as necessary
 - x. Place the filter lid on the clean cage and transfer the cage cards to the new cage
 - xi. Remove the dirty spigot from the rack and place in the dirty spigot box
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- xii. Foam hands with hydrogen peroxide and select a clean spigot before returning the box to rack
- xiii. Place the new spigot on the rack, toggle the spigot and ensure that it is securely fixed
- xiv. Return the clean cage to the ventilated rack
- c) Dirty cages are placed on the transfer rack and transferred out of the room at the end of cage changing
- d) Cages with newborn litters are not to be changed until pups are at least 3 days of age
- e) At the end of the day, scan any racks that were changed for potential floods prior to leaving the room

a) All surfaces should be cleaned with 0.5% activated hydrogen peroxide

a) All boxes have an igloo and nestlet pack

SOP Revision History:

[illegible]