

University Animal Care Committee Standard Operating Procedure		
Document No: 14.10	Subject: Caring for Rats Housed in Conventional Holding	
Date Issued: March 2022	Revision: 4	Page No: 1

Location: Queen's University Botterell Hall

Responsibility: All Animal Care Services Staff

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

1. Introduction and Definitions:

- a. Lights are on a 12:12 cycle, controlled by the Lutron lighting system
- b. The conventional rooms have outward directional airflow, with a minimum of 15ACH
- c. Rats are housed in Tecniplast cages which have an outward directional air flow
- d. For housing density and enrichment specifications refer to UACC Policy on Rat Housing
- e. Water is provided by the facility chlorinated automatic watering system and distributed to the individual cages using automatic water valves
- f. Cages are changed a minimum of every 2 weeks
- g. ATS is cleaned weekly
- h. Although cages are not sterile, all husbandry and cage change procedures are performed in an animal transfer station to reduce personnel exposure to rodent allergens

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

2. Daily Tasks

- a. Prior to entering the holding room, check the room temperature and humidity on the hallway monitor and record the information on the room sheet.
 - b. Check the H₂O pressure reducing system. It should be between 3-7 psi. If outside normal range, notify the Associate Director, Animal Care Services
 - c. Turn on the ATS and let it sit for a minimum of 5 minutes prior to use.
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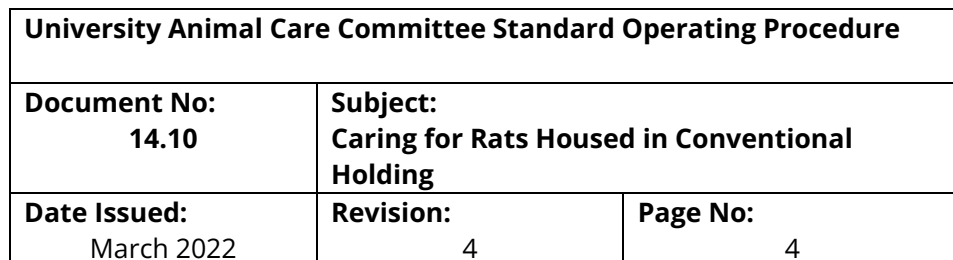
- d. Clean all surfaces within the Animal transfer station with 0.5% accelerated hydrogen peroxide.
- e. Once the animal transfer station has been running for 5 minutes and is disinfected, you may proceed with bringing in supplies.
- f. All cages are checked daily by observing the cage while it remains on the rack. Document any health concerns as per *SOP 14.3 Clinical Health Reports - Rodent Records*
- g. 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 examples, hunched posture, squinted or closed eyes, splayed ears, piloerection, abnormal gait, porphyrin staining
- h. For breeding cages, record any new litters on the yellow breeding card located in the cage card holder.
- i. 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
- j. 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

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- k. Any wet, excessively soiled cage is flagged for changing independent of the cage change schedule
- l. Any flooded cage must be changed and recorded on the electronic cage flood log
- m. Food is topped-up daily as necessary
- n. Feed bins are changed when bringing in fresh food or at a minimum of once weekly
- o. Feed bins are to be labeled with the Diet tag, which includes diet type, expiration date, mill date and lot number
- p. Technical rooms associated with Conventional rooms must be checked daily, restocked and cleaned as necessary
- q. Sweep floors and mop with 0.5% activated hydrogen peroxide
- r. Garbage should be removed and placed in the waste collection bin in the anteroom to the facility

3. Weekly:

- a. All rats are housed on the ventilated rack
 - b. Cages are changed a minimum of every week.
 - c. When performing a cage change
 - d. Place new intake cage bottom in the ATS
 - e. Place "dirty" cage within the ATS, remove the filter lid and place upside down
 - f. Remove the wire food hopper to the new cage, attach to the sky deck and top-up food as necessary
 - g. Transfer rats to cage, checking sex of every animal and making sure there are no obvious health problems
 - h. Add new nesting material
 - i. Transfer the tunnel and chew toy to the new cage, replacing them if grossly contaminated
 - j. Place the filter lid on the clean age and transfer the cage cards to the new cage
 - k. Remove the dirty spigot from the rack and place in the dirty spigot box
 - l. Place the new spigot on the rack, toggle the spigot and ensure that it is securely fixed
 - m. Return the clean cage to the ventilated rack
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- n. Cages with newborn litters are not to be changed until the litter is at least 3 days of age
- o. Dirty cages are placed on a cart and transferred out of the room
- p. 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

[illegible]