

SOP #: 505.01Title: SOP - Rodent Cage Changing Technique and Cage Sanitization

Approvals:

Attending Veterinarian

Date:

10/11/12

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Date:

10/11/12

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### 1. Purpose

1.1 To outline the steps to change a rodent cage within a Hood.

### 2. Responsibility

2.1 Animal Care Technician and research staff using the hoods are responsible for abiding by this SOP.

2.2 The AD and facility supervisor ensure compliance with these procedures and to ensure the husbandry staff are appropriately trained in the execution of this SOP.

### 3. Definitions

3.1 ACF - Animal Care Facility

### 4. Guidelines

4.1 Husbandry staff should wear disposable gowns, sleeves and gloves when changing cages. This PPE is to be discarded before staff leaves the room. Under no circumstances this PPE is to be hung inside animal holding rooms while staff takes a break or leave the room for a short period of time.

4.2 Obtain carts for soiled and clean supplies; autoclaved or clean cages; wire bar lids; filled water bottles filter tops and normal or irradiated rodent chow, when needed.

4.3 When entering a feedbag in the room the following must be performed.

- 4.3.1 Retrieve feedbag from feed storage room.
  - 4.3.2 Outside animal room, open feed bag and retrieve plastic bag containing feed.
  - 4.3.3 External paper feedbag is not to enter the animal room, but obtain mill date before discarding.
  - 4.3.4 Spray plastic feedbag. Feed is now ready to enter the room.
  - 4.3.5 While in the room, record the mill date, located on the bottom of the external paper feed bag on the label on top of the feed barrel.
  - 4.3.6 Document action with your initials.
- 4.4 Prepare the laminar hood or the change station following SOP ACF 316 (current revision) - Use of Ventilated Cage Change Station.
- 4.5 Changing Conventional Cages
- 4.5.1 All bedding changes must be done within the individual animal quarters under the laminar flow hood with the door CLOSED or within a ventilated cage change station. No exception will be made nor allowed.
  - 4.5.2 Once a technician is properly gowned for bedding changes and/or is in the process of a bedding change, the technician must not go into the dirty section of the facility unless they are completely finished with the bedding changes. If a technician has no other choice but to go into the dirty section of the facility, the technician can't return to the clean section of the facility unless they have removed the contaminated clothes and gone through with the gowning process again.
  - 4.5.3 Cages must be removed from the ventilated rack one at a time and changed one at a time. Mass collecting and changing is not allowed.
  - 4.5.4 Procedure:
    - 4.5.4.1 Wheel the bedding bin that is already contained within the room near the changing station.
    - 4.5.4.2 Fill the small plastic food container with the specific diet to be used from the appropriate food bin and bring it into the animal changing station.
    - 4.5.4.3 Take a few stacks of empty rodent cages, wire lids, and cover tops and place it in the changing station.
    - 4.5.4.4 A clean cage filled with at least 1 cm of clean bedding is placed on the surface of the Animal Procedure Station.

- 4.5.4.5 The bulk cart must be set up with all cage components to be changed that day. Clean/fresh water bottles, wire/micro tops, cage card holders, and feed must always be next to the Animal Procedure Station while changing the soiled mouse cages
- 4.5.4.6 The soiled cage is then brought to the Animal Procedure Station , the micro top is removed and set on the side of the cage
- 4.5.4.6.1 Spray your gloved hands with the disinfectant. It is not necessary to wipe dry.
- 4.5.4.6.2 Open filter top of soiled cage and flip it upside down.
- 4.5.4.6.3 Lift wire bar lid from cage and rest it on top of the clean cage.
- 4.5.4.6.4 Mouse transfer procedure:
- 4.5.4.6.4.1 Proceed to remove the mouse, holding it via mid-base of the tail, from the soiled cage and transfer it to a clean cage. If there is more than one rodent in the cage, pick up the rodents one at a time while transferring them to the clean cage. Count the number of animals in the cage.
- 4.5.4.6.4.2 If pups are present and are less than two weeks old, form a scoop with your fingers and scoop all the pups up along with some old bedding and set them down in the clean cage. If pups are older, if lifted by hand, are scruffed at the neck, or if forceps are used, pick up around shoulder blades.
- 4.5.4.6.4.3 Transfer forceps, where available, can be used for mouse transfer.
- 4.5.4.6.4.4 Observe for signs of illness during transfer and report them.
- 4.5.4.6.5 Rat transfer procedures
- 4.5.4.6.5.1 Pick rats up slowly and gently grasping them around the abdomen, while stabilizing their feet or by holding them at the base of their tail.
- 4.5.4.6.5.2 Observe for signs of illness during transfer.
- 4.5.4.6.5.3 If cage contains pups younger than 7 days of age, do not change unless excessively soiled, or wet. If cage change is necessary:
- 4.5.4.6.5.3.1 Rub soiled bedding on gloves before moving pups.
- 4.5.4.6.5.3.2 With your hands scoop them up.

**4.5.4.6.5.3.3 Transfer some of the old nesting material**

- 4.5.4.6.6 Leaving the clean cage with newly transferred animals in the changing station, remove the soiled cage and place it in the “dirty” cart.
- 4.5.4.6.7 Add or remove all feed and then place a fresh water bottle followed by the micro isolator top
- 4.5.4.6.8 Using a brush remove any dust off or bedding on the rack and then put the cage back in the same spot where it previously was.
- 4.5.4.6.9 Collect Sentinel bedding for sentinel cage according to SOP ACF 502 - Sentinel Soiled Bedding Procedure.
- 4.5.4.6.10 Continue to change the rest of the cages in the animal room until all animals in the room are in clean cages
- 4.5.4.6.11 Walk around the ventilated system to make sure all the rodent cages are slotted in properly and locked into place.
- 4.5.4.6.12 Input the number of animals on the CENSUS SHEET in the room.
- 4.5.4.6.13 If there are any soiled items left in the Laminar Flow Changing Station, remove them and place them in the “dirty” cart.
- 4.5.4.6.14 Spray the working surface of the changing station with disinfectant and wipe clean.
- 4.5.4.6.15 Get the broom located within the animal quarters that you are changing and sweep the floor. Use the dustpan within the quarters to collect the floor debris and dispose of it in the garbage can be provided in the quarters.
- 4.5.4.6.16 If the ventilated rack itself is dusty or dirty, get several sheets of paper towels and moisten it with the spray disinfectant. Proceed to wipe the rack with the moisten paper towel. Discard paper towel in the garbage can when finished.
- 4.5.4.6.17 Spray disinfectant on all the “clean” carts surfaces and wipe. Wheel the carts to the clean room.
- 4.5.4.6.18 Wheel the “dirty” carts out of the animal quarters. As you walk out of the animal quarters close and lock the door behind you.
- 4.5.4.6.19 Record all activities completed in the animal room on the room check sheet, which hangs on the outside of the room, (along with any additional comments) and on the INDIVIDUAL ACTIVITY REPORT CARD.

Report any infractions, discrepancies or/and any problems to your supervisor.

- 4.5.4.6.20 “Dirty” carts with soiled housing equipment must be wheeled to the dirty area for bedding disposal and washing. Report any infractions, discrepancies or/and any problems to your supervisor.

#### 4.6 Changing Immunocompromised animals or SPF Cages

- 4.6.1 In addition to the procedures described at 4.5 Changing Conventional Cages, all equipment and materials for housing immunocompromised or SPF rodents MUST be irradiated or autoclaved.
- 4.6.2 Individual cage units are assembled prior to autoclaving in the following order: 1 cup of clean bedding in a clean animal cage followed by a clean wire lid and a clean plastic top. Assemble enough cage units for one room change. Place the assembled cages into autoclaved bags. Place the bags into the autoclave. Autoclave on a dry cycle for 15 minutes. When sterilization process is complete, set aside in a pre-determined area without opening the autoclaved bags. Repeat the process until there are enough autoclaved assembled cages for one room change.
- 4.6.3 To sterilize animal water bottles, fill bottles with water from Animal Drinking Water jugs and cap. Place all filled water bottles into bottle autoclaving bin(s) and cover with aluminum foil. Place bin(s) into the autoclave and autoclave on a liquid cycle for 15 minutes. When the sterilization process is complete, set aside in the pre-determined area without breaking the seal of the aluminum foil. Repeat the process until there is enough pre-filled autoclaved water for one room change.
- 4.6.4 To sterilize animal bedding only, scoop clean bedding into an autoclave bag and fill  $\frac{3}{4}$  of the way. Twist the bag close and seal it with autoclave tape. Place bag(s) onto autoclave bin(s) and place in the autoclave on a dry cycle for 15 minutes. When sterilization process is completed, place the bags in the “Autoclaved Bedding” bin without opening the bags. Repeat the process enough times to keep the autoclaved bedding bin full.
- 4.6.5 To sterilize rodent diet, fill an autoclave bag  $\frac{3}{4}$  of the way full with animal diet designated as “autoclavable diet”. Twist the bag close and seal it closed with autoclave tape. Place the bag(s) onto autoclave bin(s) and place in the autoclave on a dry cycle to sterilize for 15 minutes and dry 20 minutes. When sterilization process is completed, place all the bags in the “Autoclaved Animal Diet” bin without opening the bags. Repeat the process until there is enough sterilized animal food for one room change.
- 4.6.6 Contingencies:

4.6.6.1 Irradiated instead of autoclaved food or bedding can be used.

4.6.6.2 RO water could be used instead of autoclaved water.

4.7 Sentinel animals are exempted from following the above mentioned procedures.

4.8 Processing of soiled microisolators

4.8.1 Using examination gloves, face mask, disposable lab coat and hairnet, empty soiled bedding into the dump station and take the bag to the outside waste receptacle.

4.8.2 Place the cage components on a cart designated as "dirty" and take it to the cage wash area.

4.8.3 Pre-rinse soiled cage bottoms in sink with water if needed and place them back on the dirty cart.

4.8.4 Place the microisolator parts into the washer.

4.8.5 Remove the clean parts from the washer in the clean side of the wash area and place them on a clean shelf and let them drain and dry

4.8.6 The clean cages are stored on a storage shelf and the effectiveness of sanitization is monitored by the designated ACF staff.

4.8.7 All cages that are found to be contaminated are re-sanitized, retested, and the cleaning procedures are re-evaluated.

4.8.8 The wearing of laboratory coats, gowns, and uniforms in the animal facility is mandatory. Laboratory coats worn in the animal facility are not worn in other areas.

## 5. References

5.1 N/A