

**SEATTLE CHILDREN'S RESEARCH INSTITUTE
OPERATING POLICIES / PROCEDURES**

DEPARTMENT: Institutional Animal Care and Use
Committee
POLICY NUMBER: IACUC-036
REPLACES:
EFFECTIVE DATE: June 10, 2005
REVISION DATE: April 06, 2011
POSTED FROM:

TITLE: Revision of Mouse Cage Change Frequency

SUMMARY:

The purpose of this policy is to provide Institutional Animal Care and Use Committee (IACUC) guidelines to mouse cage change frequency as proposed by the Office of Animal Care (OAC) in accordance with ¹*the Guide for the Care and Use of Laboratory Animals*, ^{2&3}published study reports, and ⁴in house OAC assessment and report.

DEFINITIONS:

1. Caging means Thoren® ventilated mouse only.
2. Bedding means Anderson Bed-o-cob® or Harlan corncob.

POLICY/PROCEDURE:

036-1 REQUIREMENTS

- 036-1.1 ¹Soiled bedding should be removed and replaced with fresh materials as often as is necessary to keep the animals clean and dry. The frequency is a matter of professional judgment of animal care personnel based on consultation with the investigator and depends on such factors as the number and size of the animals in the primary enclosure, the size of the enclosure, urinary and fecal output, the appearance and wetness of the bedding, and experimental conditions, such as those of surgery or debilitation, that might limit an animal's movement or access to areas of the cage that have not been soiled with urine and feces. There is no absolute minimal frequency of changing bedding, but it typically varies from daily to weekly. In some instances, frequent bedding changes are contraindicated, such as

during some portions of the pre-partum or postpartum period, when pheromones are essential for successful reproduction, or when research objectives do not permit changing the bedding.

035-2 APPLICABILITY:

036-2.1 The Seattle Children's OAC has identified guidelines for mouse cage changing frequency which adhere to recommendations in *the Guide*, provide acceptable primary barrier environmental conditions, reduce animal stress levels due to excessive handling, increase efficiency, reduce labor, and ultimately reduce cost of care.

036-3 CAGE CHANGE FREQUENCY

036-3.1 The frequency of mouse cage change out is once every seven (7) days for cages with 3-5 animals, unless otherwise specified in approved protocols.

036-3.2 One to two mice per cage are changed @ 10 – 14 days;

036-3.3 Females with litters @ ≤ 7 days, after pups are ≥ 3 days old.

REFERENCES:

¹National Research Council, "The Guide for the Care and Use of Laboratory Animals". National Academy Press; Washington DC. 1996.

²Microenvironment in Ventilated animal Cages with Differing Ventilation Rate, Mice Populations, and Frequency of Bedding Changes. [Contemp Top Lab Anim Sci](#). 1998 Mar;37(2):43-49.

³The Impact of Reduced Frequency of Cage Changes on the Health of Mice Housed in Ventilated Cages. [Lab Anim](#). 2001 Jan;35(1):58-73.

⁴Cage Change Frequency Process Improvement Study. OAC. 2006 Oct. Lean Methodology; CPI Projects.

⁵Measurement of Carbon Dioxide in Cages with Varying Population. OAC. July 2008. Lean Methodology. CPI Projects.

⁶Measurement of Ammonia in Cages with Varying Population. OAC. Aug 2008 .Lean Methodology. CPI Projects.

Submitting Office: Office of Animal Care

Approved by:

\s\ Anne Clancy, IACUC Chairperson, 4/20/2011

\s\ William R. Morton, VMD, Attending Veterinarian, 4/20/2011

\s\ Mason Craig Bailey, Manager/Office of Animal Care, 4/19/2011