

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE  
PROTOCOL FORM rev. 2006**

For review by  
Institutional Animal Care and Use Committee  
Slippery Rock University  
Slippery Rock, PA 16057

\* All research, teaching, and testing uses of live vertebrate animals at Slippery Rock University must be approved by the SRU Institutional Animal Care and Use Committee (IACUC). The PI on each protocol assures compliance with animal housing SOP that is included in this document.

**Instructions:**

1. Protocol Renewal Review Form must be typed. All sections must be completed. Please contact the IACUC Office for any needed advice on Protocol Form completion.
2. Use additional space as needed to complete the protocol. Send a complete signed original Protocol Form to the IACUC Committee c/o College of Health, Environment, and Science Dean's office. Keep a copy of the form for your records. You will receive written notification of the IACUC review outcome.
3. Any proposed changes in animal species, numbers, or procedures from those in an approved protocol must be reviewed by the IACUC. Minor administrative amendments can be proposed via memorandum. Major changes necessitate submission of a new Protocol Form.
4. For protocols which extend beyond one year but which do not substantially depart from a previously approved research plan, the submission of an annual Protocol Renewal Form is required. For those with substantial changes, a new Protocol Form must be submitted. All protocols must be resubmitted with updates for complete IACUC review by the third year anniversary date of initial approval.

***IACUC RESPOND HERE ONLY:***

Date Received: \_\_\_\_\_ Date Initial Review By Committee: \_\_\_\_\_

IACUC Protocol Number: \_\_\_\_\_

Approved as submitted

Approved with modifications noted on the approval letter

Disapproved

Committee Chairman's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Committee Veterinarian's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**A. Project Information:**

Principal Investigator: \_\_\_\_\_

Project Title(s): \_\_\_\_\_

Dates of Proposed Study: \_\_\_\_\_

Dept./Institutional Unit: \_\_\_\_\_

Office Mailing Address: \_\_\_\_\_

Office Phone: \_\_\_\_\_ Lab Phone: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Other Phone: \_\_\_\_\_

Pager: \_\_\_\_\_ Email Address: \_\_\_\_\_

Other Personnel Involved with Handling Animals (use additional space as needed):

For Each, Provide Name: \_\_\_\_\_

Position/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

Roles, Qualifications and Training: Describe the roles, qualifications and training for ALL of the personnel involved in the performance of this protocol. This includes training for specific surgical procedures. [Use as much space as needed.]

**B. Rationale for Animal Use:** The following four questions are mandated under the Animal Welfare Act Regulations. [Use as much space as needed for each question.]

1. Summarize the purpose and importance of the proposed animal use/study in lay terms.
2. Justify why an animal model is needed instead of non-animal models.
3. Address the appropriateness of each of the species of animals to be used.
4. Justify the numbers of each of the species of animals to be used. Sample size should be clearly indicated for each experimental trial, and all sample sizes must be justified in accordance with relevant publications in the field of study (include references) or from statistical power analysis.

**C. Description of Animal Use:** (Attach additional pages if more than 3 species are used in the protocol.)

	Species A	Species B	Species C
1. Animal species to be used:			
2. Total number to be used per year:			
3. Total number for entire project:			

4. Assessment of animal pain and/or distress. Number of animals used on this project. (Complete all that are applicable and please account for all animals listed above)

	Species A	Species B	Species C
<b>Class B:</b> No. of animals bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery, not yet used for such purposes.			
<b>Class C:</b> No. of animals to be used in procedures with minimal, momentary, or no pain or distress.			
<b>Class D:</b> No. of animals, which will undergo painful or distressful procedures but will receive appropriate anesthetics, tranquilizers, or analgesics to alleviate pain and/or distress.			
<b>Class E:</b> No. of animals experiencing pain and/or distress without alleviation.			

5. Alternatives: All painful or distressful protocols require a written narrative description of the methods and sources (see USDA Policies 11 and 12 at <http://www.aphis.usda.gov/ac/polmanpdf.html>) used to determine that alternatives are not available. If any animals experience pain and/or distress whether alleviated or not you must provide a written narrative description of methods and sources used to determine that alternative(s) procedures were not available. Attach additional pages if necessary. If any procedures fall into USDA's Classification D or E, causing more than momentary or slight pain or distress to the animals, USDA Policy 12 requires that you must provide a narrative to address all three of the following issues:
- You have refined potential pain-producing methods as much as possible to minimize distress.
  - You have reduced animal use as much as possible without jeopardizing statistical validity.
  - You have considered replacing potential pain-producing methods with other techniques, (e.g. in vitro techniques, computer simulations, etc.).

6. Will the procedures using animals include the following?

	YES	NO	
a.	<input type="checkbox"/>	<input type="checkbox"/>	Use of INFECTIOUS AGENTS in live animals. If "YES", describe safety precautions planned relevant to this project in Part 7 below.
	Agent:		Animal Dose:
b.	<input type="checkbox"/>	<input type="checkbox"/>	Restraint of unanesthetized or sedated animal(s) for more than 20 minutes. If "YES", explain in Part 7 below.
c.	<input type="checkbox"/>	<input type="checkbox"/>	Study of STRESS, PAIN, or ALTERED BEHAVIOR in animals. If "YES", explain in Part 7 below.
d.	<input type="checkbox"/>	<input type="checkbox"/>	NEOPLASIA in live animals. If "YES", explain procedures in Part 7 below.
e.	<input type="checkbox"/>	<input type="checkbox"/>	SURGICAL PROCEDURE in any animal. If "YES", explain experimental design in Part 7 and complete section D completely below.
f.	<input type="checkbox"/>	<input type="checkbox"/>	MORE THAN ONE SURGICAL PROCEDURE in any animal. If "YES", explain experimental design in Part 7 below.
g.	<input type="checkbox"/>	<input type="checkbox"/>	DIETARY MANIPULATION, e.g. caloric restriction, specific constituent restriction. If "YES", explain in detail how animals will be monitored in Part 7 below.
h.	<input type="checkbox"/>	<input type="checkbox"/>	IMMUNIZATION. Describe antigen, adjuvant, route of immunization in Part 7 below.
i.	<input type="checkbox"/>	<input type="checkbox"/>	ENVIRONMENTAL STRESS, e.g. cold, noise, forced exercise, etc. If "YES",

			explain in detail in Part 7 below.
j.	<input type="checkbox"/>	<input type="checkbox"/>	BEHAVIORAL STUDIES. If "YES", explain in Part 7 below.
k.	<input type="checkbox"/>	<input type="checkbox"/>	BREEDING COLONY. If "YES", explain in Part 7 below.
l.	<input type="checkbox"/>	<input type="checkbox"/>	TRAUMA. If "YES", explain in Part 7 below.
m.	<input type="checkbox"/>	<input type="checkbox"/>	PHYSIOLOGICAL MEASUREMENTS. If surgery is included, see Part 3 above and describe protocol in detail in Part 7 below.
n.	<input type="checkbox"/>	<input type="checkbox"/>	PHARMACOLOGY/TOXICOLOGY.
	Agent(s):		Dose(s):
o.	<input type="checkbox"/>	<input type="checkbox"/>	EUTHANIZE AND HARVESTING OF TISSUES. See Part 3 above and describe methodology in Part 7 below.
p.	<input type="checkbox"/>	<input type="checkbox"/>	Live animal TRANSPORT to/from or HOUSING at any site OTHER THAN SRU ANIMAL FACILITY. If "yes", contact the IACUC for guidelines.

7. Describe all procedures that will be performed on live animals within each experimental group. Indicate number of animals in each group. If surgical procedures are to be performed, Section D must also be completed. Give published references for all standard procedures. Use additional space and pages as needed.
8. Describe the likely (expected) consequences of the experimental manipulations performed on the animals, or the physiological manifestations of the genetic background of the animals, on their health and well-being. Examples of such consequences might include weight loss, loss of mobility, tumor formation, etc.

**D. Description of Surgical Procedures:** Check here  if NO SURGERY is to be performed. Post-euthanasia tissue collections do not constitute surgery.

1. Person(s) responsible for performing surgery: \_\_\_\_\_

Experience or training of surgeon(s) with surgical procedure and animal model

2. TYPE(s) of surgical procedures: Number of animals used undergoing surgery on project. (Please account for all animals that undergo surgery.)

		Species A	Species B	Species C
a.	Surgical procedures will be terminal. Animals will be euthanized under anesthesia when procedure is completed:			
b.	Surgical procedures are intended to be non-terminal. Aseptic or sterile surgical techniques will be used.			
c.	The experimental plan includes repeated			

	surgical procedures for each animal.			
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3. Location where surgery is to be performed.\*

\*Major survival surgery on non-rodents must be performed in a dedicated operating room.

4.

Agents Administered*	Provide Agent Name, Dose, Route, and Frequency
Pre-anesthetic agent(s)	
Anesthetic induction agent(s)	
Inter-operative maintenance agent(s)	
Postoperative analgesic agent(s)	
Other drugs or agent(s) to be used:	

\*All products must be pharmaceutical grade unless use is justified and approved by the IACUC.

5. Description of surgical procedure(s): [Use as much space as needed to thoroughly describe procedures.]

6. Description of the postoperative care of animal(s), if any animals were entered into 2b or 2c of this section. (Individual postoperative care records must be maintained for all non-rodents. Group records are recommended for rodent surgical cohorts.) [Use as much space as needed to thoroughly describe both immediate perioperative and long-term monitoring plans. Be sure to describe species-specific parameters of pain and distress that your research team will use. Indicate who will be involved in postoperative care and their training.]

**E. Disposition of the Animals Following the Study:**

Describe in detail the specific clinical, laboratory, or other diagnostic criteria utilized to determine when an experimental animal will be euthanized or removed from a study prior to reaching the experimental endpoint(s) listed in Section C7 above. In addition, indicate the anticipated frequency of premature removal of animals from the study due to these endpoint criteria. Examples of such criteria are a weight loss >20%, intractable or uncontrollable pain or distress, indicators that an animal is failing to thrive, etc. [Use as much space as needed to thoroughly describe.]

YES      NO      Upon completion of this project, all animals will be euthanized. If "NO", describe the fate of the animal(s). (Please note that no animal may be given away without permission from IACUC).

    

All protocols (regardless of answer to above question) must include euthanasia plan in case euthanasia becomes necessary. Euthanasia must comply with the standards of the AVMA (see [http://www.avma.org/issues/animal\\_welfare/euthanasia.pdf](http://www.avma.org/issues/animal_welfare/euthanasia.pdf)).

Methods(s) of euthanasia: \_\_\_\_\_ Dose: \_\_\_\_\_

Route of administration: \_\_\_\_\_  
\_\_\_\_\_

Individuals(s) responsible for administering euthanasia and their training:

If animals must be euthanized and you can not be reached by the veterinarian what disposition should be performed on this animal's carcass, (e.g. frozen, incinerated)?

Which tissues from euthanized animal(s) will be available for utilization by other investigators?

**F. Investigator's Assurance Statements:**

The information I have supplied above is a complete and accurate description of all procedures involving live animals in this project. I have taken appropriate measures to ensure that I am using the minimum number of animals to achieve my goal and that I am not unnecessarily duplicating known results. I assure that all personnel under my direction will be appropriately trained prior to handling animals. I agree to abide by the animal care and use policies of this institution.

I certify that I will notify the IACUC before initiating any significant changes in this protocol. I certify that I will notify the IACUC regarding any unexpected results that impact animals. Any unanticipated pain, distress, morbidity or mortality will be reported to the attending veterinarian.

I understand that if I cannot be contacted in the event that animals in this project show evidence of distress, illness or pain, emergency care, including euthanasia if necessary, will be administered at the discretion of the veterinary medical staff.

For all USDA Classification D and E proposals (see Section C5): I certify that I have reviewed the pertinent scientific literature and the sources and/or databases and have found no valid alternative to any procedures described herein which may cause more than momentary pain or distress, whether it is relieved or not.

I certify that I will share a copy of the approved protocol with all personnel identified in Section C and they will read and understand all elements described for the study.

Signature of Principal Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

**G. Signature of Chair or Designee:** \_\_\_\_\_ Date: \_\_\_\_\_

# STANDARD OPERATING PROCEDURE (SOP) APPROVING INVESTIGATOR-MANAGED USE SITES AND HOUSING AREAS

## I. DEFINITIONS

**Investigator-managed Housing Area:** Any investigator- managed building, room, area, enclosure, or other containment site in which animals are housed for periods longer than 12 hours.

**Investigator-managed Study Area/Use Site:** Any investigator- managed building, room, area, enclosure, or other containment site in which animals are taken for use (i.e. surgery, euthanasia, behavioral testing) on an IACUC approved protocol.

**AWRs:** USDA Animal Welfare Act Regulations

**PHS Policy:** Public Health Service Policy on Humane Care and Use of Laboratory Animals

**The Guide:** National Research Council *Guide for the Care and Use of Laboratory Animals* (<http://www.nap.edu/readingroom/books/labrats>)

**IACUC:** Institutional Animal Care and Use Committee of Slippery Rock University (SRU)

## II. SCOPE

The *US Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training, Principle VII* states that “the living conditions of animals should be appropriate for their species and contribute to their health and comfort. Normally, the housing, feeding, and care of all animals used for biomedical purposes must be directed by a veterinarian or other scientist trained and experienced in the proper care, handling, and use of the species being maintained or studied.” In accordance with this principle, the USDA AWRs and the *Guide* set standards that are mandatory for the environment, housing, and management of laboratory animals. This document forms the basis for the IACUC’s approval and evaluation of investigator-managed animal use sites and housing areas. Under no circumstance will ad hoc housing of vertebrate animals for teaching, research, or testing be permitted at SRU.

## III. PROCEDURES FOR MANAGEMENT OF HOUSING/USE SITES

In accordance with the AWRs and the PHS Policy, the IACUC is required to conduct inspections of all animal facilities, including, but not limited to, animal study areas and areas where animals are maintained for periods longer than 12 hours at least once every six months. The investigator-managed housing areas and use sites are specified in IACUC protocols and a listing maintained by the IACUC. The PI listed on the animal protocol form is responsible for ensuring that the guidelines listed below are being met.

### A. General housing guidelines.

**Animals will only be maintained in investigator-managed study areas/use sites:**

- Three principal housing sites for vertebrate animals are designated at SRU: Physical Therapy Building (third floor animal complex), Storm Harbor Equestrian Center, and Vincent Science Hall (first floor and third floor animal rooms). Procedures areas in the Physical Therapy Building and Storm Harbor Equestrian center adjoin the housing sites. Vincent Science Hall has separate research and teaching laboratories near the animal facilities but vertebrate animals should not be maintained outside of the designated housing room for more than 12 hours unless specifically requested in the IACUC protocol.

- When removing animals from dedicated housing and procedure areas is deemed adequate by the IACUC reviewers of the protocol, an IACUC subcommittee will determine whether the use site in question is present on the roster of currently-inspected and approved sites. If the site is not currently approved, the full IACUC will be notified so that an inspection of the site can be arranged.
- If approved, the study area is inspected and certified by the IACUC prior to initial use and at least once every six months. IACUC certification of a study area is valid for a 6-month period with the condition that acceptable standards are maintained.

#### **B. Establishing an investigator-managed a new housing area at SRU**

- Housing areas must be inspected and certified by the IACUC prior to initial use and at least once every six months thereafter. IACUC certification of a housing area is valid for a 6-month period after the date of inspection with the condition that acceptable standards are maintained.
- Copies of housing site logs must be maintained at the housing site for inspection (see Section V.C.1).
- Ventilation in the housing site must be adequate as measured by Facilities Management or Environmental Health and Safety (see Sections V.A.4 and V.C.3).
- The Attending Veterinarian must be given access (i.e., a key or combination) to the housing site for evaluation of animal health and well-being (see Section V).
- The investigator-managed housing site must comply with the **GUIDELINES FOR ANIMAL ENVIRONMENT, HOUSING, AND MANAGEMENT** specified in Section V.

### **IV. GUIDELINES FOR MANAGEMENT OF USE SITES**

- All animal use sites must have a regular sanitary maintenance schedule and must be kept clean, neat, and uncluttered.
- No food or drink for human consumption is permissible in the animal use area.
- Any surgical procedures conducted in an animal use site must fully comply with the IACUC Surgical Guidelines (see SRU surgical procedures document).
- Chemical or biological hazardous agents can be used only if permitted in the protocol approval that was granted by IACUC. Any changes must be approved by written request to IACUC.

### **V. GUIDELINES FOR MANAGEMENT OF HOUSING AREAS**

#### **A. Animal Facility**

##### **1. Sanitation**

The housing site must have a regular sanitary maintenance schedule and must be kept clean, neat, and uncluttered. The *Guide* (p. 44) states that “all components of the animal facility...should be cleaned regularly and disinfected as appropriate to the circumstances and at a frequency based on the use of the area and the nature of likely contamination.” A log of cleaning activities must be kept in the facility with dates and initials indicated by the cleaning staff. This includes specific activities such as drain and fixture maintenance in the housing area.

## 2. Food/Bedding Storage

Food and bedding materials must be stored in closed containers to avoid contamination and the potential spread of disease. Containers must seal so that vermin are excluded from the food and bedding being stored, and must be made of a material such that the container can be sanitized on a regular basis. It is important to note that, as stated in the *Guide* (p. 39), “contaminants in food can have dramatic effects on biochemical and physiologic processes, even if the contaminants are present in concentrations too low to cause clinical signs of toxicity.” If food is not stored in its original bag, its milling date (found on the bag seam) must be indicated clearly on the food container. If no milling date is listed on the food bag, label the bag with the date received. With proper storage, food can generally be used up to 6 months after the milling or receipt date. However, the shelf- life of food can be shortened by several factors, including temperatures above 21 C (70 F), humidity extremes, unsanitary conditions, light, oxygen, and pests. Furthermore, food with Vitamin C has a shelf- life of only 3 months.

Non-mammalian species may require foods (e.g. live insects) that have special storage needs. This should be done in a manner that does not compromise nutritional content or adversely impact human health and the work environment.

## 3. Temperature and Humidity

Temperature and humidity must be monitored and recorded on a daily basis to ensure that adequate levels of these environmental factors are maintained in the housing area. Relative humidity should be maintained within 30 to 70%. Unless special environmental conditions are approved by the IACUC, the area temperature must be appropriate to the species (see table below). According to the *Guide* (p. 29-30), “the range of daily temperature fluctuations should be kept to a minimum to avoid repeated large demands on the animals’ metabolic and behavioral processes.”

Temperature extremes can affect research results, alter an animal’s performance, or lead to clinical effects and death. Any deviations from the humidity range of 30 to 70% or the temperature ranges for species cited below should be promptly reported to the IACUC through the Office of the Dean for the College of Health, Environment, and Science (738-4862).

<b>Recommended Dry-Bulb Temperatures for Common Laboratory Animals</b>		
	<b>C</b>	<b>F</b>
Mouse, rat, hamster, gerbil, guinea pig	18-26	64-79
Rabbit	18-22	61-72
Cat, dog, nonhuman primate	18-29	64-84
Farm animals and poultry	16-27	61-81

Many non-mammalian species have considerably different optima and tolerance ranges than mammals. Environmental conditions should be kept in accordance with the needs of each species. Moreover, some lines of research (e.g. hibernation studies) may necessitate maintenance of animals at temperature or humidity levels extending outside boundaries noted above. These issues should be addressed in the animal use protocol as needed.

#### **4. Ventilation**

Ventilation serves to “supply adequate oxygen; remove thermal loads caused by animal respiration, lights, and equipment; dilute gaseous and particulate contaminants; adjust the moisture content of room air; and, where appropriate, create static-pressure differentials between adjoining spaces” (the *Guide*, p.30). Although factors such as species, animal size, number of animals, type of bedding, and frequency of cage-changing can affect the minimum ventilation rate required, an acceptable general standard for a vivarium room containing the maximum animal density permitted by other constraints is 10-15 fresh-air changes per hour. Investigators’ laboratories are frequently set up in space not designed to permit 10 – 15 fresh-air changes per hour. An acceptable general standard in such cases is that the maximum number of animals in a housing area be reduced proportionately. Although lower or higher ventilation rates may be required in certain instances, provisions must be made to ensure that “harmful or unacceptable concentrations of toxic gases, odors, or particles” do not accumulate in an animal’s primary enclosure. Studies where animals are conditioned to special environmental conditions (e.g. temperature or humidity) may necessitate limited air exchange. Investigators must still protect animal health when such conditions are necessary and this should be addressed in the animal use protocol.

#### **5. Illumination**

The *Guide* (p. 34-35) states that, “in general, lighting should be diffused throughout an animal holding area and provide sufficient illumination for the well-being of the animals and to allow good housekeeping practices, adequate inspection of animals---including the bottom- most cages in racks---and safe working conditions for personnel. Light in animal holding rooms should provide for adequate vision and for neuroendocrine regulation of diurnal and circadian cycles. A time-controlled lighting system should be used to ensure a regular diurnal cycle, and timer performance should be checked periodically to ensure proper cycling. ” Several factors should be considered when determining adequate illumination, such as light intensity and wavelength, duration and time of light exposure during the circadian cycle, animal pigmentation and light history, body temperature, hormonal status, age, species, sex, and animal stock/strain.

#### **6. Noise**

Unnecessary noise in the housing area should be minimized. The *Guide* (p. 36) recommends that, “to the greatest extent possible, activities that might be noisy should be conducted in rooms or areas separate from those used for animal housing” and that “radios, alarms, and other sound generators should not be used in animal rooms unless they are parts of an approved protocol or an enrichment program.”

#### **7. Hazardous Agents**

Hazardous biological, chemical, or physical agents must not be stored where animals are housed. This includes cleaning agents and disinfectants.

#### **8. Other**

Doors must fit tightly within the frame to prevent escape of or injury to animals.

#### **9. Monitoring to Assure that Animals Remain Pathogen Free**

The IACUC may require the placement of sentinel animals in housing areas to assure that the colony remains free of specific pathogens. The IACUC will determine the necessity of placement of sentinel animals in a housing area on the basis of the number of animals at the site, the duration for which animals remain at the site, and the trafficking of investigators between the site and other animal use and housing sites. The PI will be charged for this service.

### **10. Reporting Problems**

Any problems with maintaining the conditions specified in this SOP should be brought to the immediate attention of the IACUC through the Office of the Dean for the College of Health, Environment, and Science (738-4862).

## **B. Animal Care and Husbandry**

### **1. Daily Observation of Animals**

In order to comply with federal requirements (AWR's §2.33(b)(3) and the *Guide*, p. 46), animals must be observed daily, including weekends and holidays by qualified personnel to assess their health and well-being. Daily observation of animals must be recorded on the housing site log (see Section V.C.a). Additionally, AWR's §2.33(b)(3) requires that a mechanism of direct and frequent communication with the attending veterinarian exists so that timely and accurate information on problems of animal health, behavior, and well-being is conveyed.

### **2. Food/Water**

Adequate provisions for feeding and watering of animals must be made at all times. According to the *Guide* (p. 38), "animals should be fed palatable, uncontaminated, and nutritionally adequate food daily or according to their particular requirements." To avoid contamination, food must be stored properly and provided in feeders that are so placed to prevent contact of food with feces and urine. Additionally, animals must have access to "potable, uncontaminated drinking water according to their particular requirements" (the *Guide*, p. 40). To avoid microbial cross-contamination, the *Guide* recommends either replacing water bottles or refilling them provided they are returned to the same cage from which they were removed. Watering devices should be checked daily to ensure proper operation and must be washed and sanitized at least weekly.

### **3. Cages/Bedding**

The *Guide* (p. 42) states that "soiled bedding should be removed and replaced with fresh materials as often as is necessary to keep the animals clean and dry." Bedding changes can vary from daily to weekly depending on factors such as animal number and size, cage size, urinary and fecal output, and experimental conditions. Cages must be cleaned and sanitized on a regular basis. The frequency of cage sanitation may vary depending on specific husbandry practices, such as bedding type, cage type and size, animal density, and frequency of bedding changes.

## **C. Record-keeping**

### **1. Housing Area Log**

Records of animal care, room maintenance, and environmental conditions must be posted in the housing site and be kept updated by responsible personnel. Attached is a sample housing area log, which can be modified as appropriate to the protocol and animal species. The format of the modified log should be kept on file and should accurately reflect the tasks performed and the frequency of each task as described in the Standard Operating Procedures (SOP) for the housing area (see Section V.C.2). Copies of housing site logs must be maintained at the housing site by the investigator's personnel, for the duration of the housing period, and be available for inspection by IACUC personnel.

### **2. Standard Operating Procedures (SOP) for Animal Husbandry and Study Area Maintenance**

A description of procedures for animal husbandry and housing site maintenance must be submitted to the IACUC (please see attached SOP form). The SOP must be kept on file and available to representatives of the IACUC, the Attending Veterinarian, and regulatory agencies.

### **3. Room Ventilation**

A copy of Facilities Management's or Environmental Health and Safety's report regarding room ventilation (exhaust and air exchange rate) must be submitted to the IACUC. This document must be kept on file and available to representatives of the IACUC, the Attending Veterinarian, and regulatory agencies.

## **D. Veterinary Access**

The Attending Veterinarian must be given access (i.e., a key or combination) to the housing site in order to ensure the provision of adequate veterinary care in accordance with federal requirements. Specifically, the USDA AWR's §2.33(a)(2) mandates that "each research facility shall assure that the attending veterinarian has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use." Furthermore, the *Guide* (p. 12) states that "adequate veterinary care must be provided, including access to all animals for evaluation of their health and well-being."

**Slippery Rock University's Institutional Animal Care and Use Committee has reviewed and approved this SOP as attested by the signature of the Committee Chairperson.**

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**Committee Chairperson**

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**Date**

## STANDARD OPERATING PROCEDURE (SOP) FOR ANIMAL HUSBANDRY AND HOUSING SITE MAINTENANCE

### **I. Purpose:**

The purpose of this document is to specify the procedures for animal husbandry and housing site maintenance to be employed in an investigator-managed housing site.

### **II. Scope:**

This SOP will apply to all research animals housed in building room number(s) under the care of investigator's name.

### **III. Responsibilities:**

A. Investigator's name will be responsible for reviewing and updating this document annually or as needed.

B. All personnel will be responsible for reading and complying with the provisions herein.

### **IV. General:**

A. Species

B. Husbandry requirements (environmental parameters including temperature, humidity, light cycle, air change, room pressure)

C. Special needs (e.g., special diet/feeding schedule, bedding/litter changing schedule, sterile/deionized water, food/water deprivation/restriction)

### **V. Procedures:**

A. Daily monitoring and care of animals (by whom; mechanism of communication with the veterinarian by phone or pager regarding problems of animal health, behavior, and well-being; weekend, emergency, and holiday care)

B. Feeding (what, amount, frequency, by whom, food storage, method for monitoring milling or receipt date)

C. Watering (frequency, by whom, method of monitoring cleanliness and proper operation of watering devices)

D. Bedding and cage changes (frequency, by whom, bedding storage)

E. Sanitation of housing area, cages or tanks, feeders, water bottles, food and bedding storage containers, racks or shelves (frequency, solutions used, by whom). Please note that sanitation "as often as needed" is not acceptable.

F. Record-keeping (see sample study area log)

### Housing Site Daily Log

Month: \_\_\_\_\_ Year: 20\_\_

Building: \_\_\_\_\_ Room: \_\_\_\_\_ Species: \_\_\_\_\_ Protocol Number \_\_\_\_\_

TASK	Frequency	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Initials	
Check animals	Daily																																	
Room temperature	Daily																																	
Animals fed	Daily																																	
Sanitize area	Weekly																																	
Sanitize racks	Weekly																																	
Sanitize food container	Monthly																																	
<b><i>For terrestrial species:</i></b>																																		
Room humidity	Daily																																	
Check feeders	Daily																																	
Check water bottles	Daily																																	
Changes cages & bedding	Weekly																																	
Wash water bottles & feeders	Weekly																																	
<b><i>For aquatic species</i></b>																																		
Change water	Weekly																																	
Sanitize tanks	Biweekly																																	
Change filters	As Needed																																	

**NOTE:**

The IACUC must be notified when animals are brought to the housing site.

Housing Site Daily Logs must be maintained in the housing site area and be available for inspection .

Copies of Housing Site Daily Logs must be submitted to the IACUC on a monthly basis or at the end of the study period, whichever comes first.

Any animal health concerns must be brought to the attention of the attending veterinarian.

