Standard Operating Procedure (SOP)

APPROVING SATELLITE HOUSING FACILITIES

I. DEFINITIONS

Satellite Housing Area: Any building outside of an approved University vivarium or IACUC approved housing facility, or other University-owned area where animals are housed for greater than 12 hours

AWRs: USDA Animal Welfare Act Regulations

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


DLAR: Division of Laboratory Animal Resources at the University of Pittsburgh

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 satellite housing facilities.

III. PROCEDURES TO ESTABLISH A SATELLITE HOUSING SITE

The following guidelines must be adhered to when establishing a satellite housing facility. A form is also provided (Attachment 1) at the end of the document as guidance for providing relevant and required information to the IACUC regarding satellite housing.

A. Steps and general conditions for approval of satellite housing.

1. The DLAR senior management must be consulted to determine whether space is available to conduct the study in existing University owned facilities. Satellite housing will only be considered if insufficient space is available to conduct the study in University owned facilities, or if species will be employed that cannot be accommodated.
2. Justification for using satellite housing must also be reviewed and approved by the IACUC. The IACUC will make a decision regarding the request by reviewing the needs of the investigator, the adequacy of the site for maintaining animal health and welfare, and logistical concerns regarding routine inspections of the site.

3. Contracts for housing of animals at satellite facilities will be negotiated by the University. Under no conditions can an investigator independently make arrangements for animal housing at a satellite facility.

4. It is expected that all provisions regarding animal husbandry and environmental conditions as well as veterinary care outlined in both the Guide and AWRs will be adhered to at the satellite facility. Note that the IACUC can make exemptions from these provisions, although stipulations regarding animal welfare must be provided.

5. The USDA license or registration number for the satellite housing facility must be provided, if such a license or registration number exists. Furthermore, on an annual basis the facility must provide all USDA inspection reports from the previous year to the IACUC. In addition, any major citations of the facility by the USDA must immediately be brought to the attention of the IACUC.

6. If the study involves biohazards or safety concerns, these matters must be addressed by the appropriate entity (e.g., Radiation Safety or Environmental Health and Safety) prior to housing animals at the satellite facility.

7. The University of Pittsburgh IACUC protocol that the animals are assigned to must be maintained at the satellite housing facility.

8. Prior to transferring the animals to a satellite housing facility, a DLAR Animal Transfer and Movement Approval Form, available on the DLAR website (www.dlar.pitt.edu) must be completed and approved. If animals have previously undergone surgery or procedures, a DLAR veterinarian must examine the animals and attest their health status is adequate to permit transfer to the satellite facility.

9. The satellite facility must permit inspections by personnel from the IACUC, RCCO, DLAR, or the Environmental Health and Safety Department, as well as by agents from inspection agencies (e.g., USDA or AAALAC). At a minimum, the facility must be inspected and certified by the IACUC prior to initial use and thereafter at least once every six months while University owned animals are present there.

10. Costs that may be incurred by the University in establishing a contract with a satellite facility or in the oversight of that facility may be passed on to the Investigator or Department requesting satellite housing.
11. All Satellite Housing vendors will be required to provide satisfactory evidence of insurance, and to agree to provide appropriate indemnity to the University.

12. Investigators should appreciate that approving a satellite housing facility requires many steps and approvals, and thus cannot be accomplished in a short time period.

13. AAALAC accredited facilities have already been subjected to a rigorous review and approval process by that organization and can likely be approved quicker than facilities that lack AAALAC accreditation.

B. Issues that must be addressed when housing animals at a satellite facility.

Approval of a satellite housing facility is contingent upon all the following conditions being met. Each of these issues must be addressed in writing to the IACUC when proposing the use of a satellite housing facility. A form is provided (Attachment 1) at the end of the document as guidance for providing relevant and required information to the IACUC.

A Standard Operating Procedure must be provided regarding the daily operation of the satellite housing facility and the provision of animal husbandry and care. This Standard Operating Procedure must address the following:

1. Sanitation
2. Food and bedding storage
3. Temperature and humidity control
4. Ventilation (HVAC performance data)
5. Illumination control
6. Noise
7. Protections from hazardous agents
8. Provision of food and water
9. Cage changing and sanitation
10. Daily record keeping and documentation of animal husbandry procedures and environmental parameters
11. Security
12. Disaster management plan

The standard operating procedure must also address the following issues regarding the provision of adequate veterinary care:
1. Procedures for daily monitoring of animals to ensure that they are in good health and condition. The identity and credentials of the personnel who monitor the animals must be indicated.

2. Indicators that signal a veterinary medical problem that requires care.

3. The identity of the veterinarian who will be called in case a medical problem occurs, and contingencies plan if that individual is not immediately available.

4. A description of the treatment facilities available to care for the animals.

An additional study-specific standard operating procedure must be provided regarding the specific care needs of animals assigned to a particular protocol. This procedure should discuss the following:

1. Any special husbandry needs of the animals resulting from procedures they have been subjected to.

2. Any special veterinary care needs resulting from previous or ongoing procedures on the animals.

3. If medications or treatments are needed on a routine basis as part of the study, the persons providing the treatments should be indicated, as well as provisions for executing the treatments at the satellite housing facility. For example, if controlled substances are to be used, the availability of a double-locked container to store the drugs should be discussed, as well as the identity of the personnel authorized to dispense the drugs.

4. If any biohazardous substances will be employed, the specific procedures to be employed to protect the animals and the personnel at the satellite housing facility must be indicated. These procedures require approval by the relevant University Departments or Offices (e.g., Radiation Safety or Environmental Health and Safety).

If a third party will be transporting animals between University owned facilities and a satellite housing site, a thorough description of the vehicle and methods to be used for the transport must be provided. The methods used to secure the animals to prevent injury during transport must be discussed, as well as the environmental conditions within the vehicle. The animal holding compartment ambient conditions during transport must be indicated.

APPROVAL

The University of Pittsburgh's Institutional Animal Care and Use Committee has reviewed and approved this SOP as attested by the signature of the Committee Chairperson.
STANDARD OPERATING PROCEDURE FOR SATELLITE HOUSING FACILITY

This form is to assist you in describing animal care and husbandry at a satellite housing facility. An accurate program description is necessary to provide the University of Pittsburgh with sufficient information to make an objective judgment concerning the housing and use of animals at the facility. The IACUC will review the description and, at the time of the site visit, evaluate the program and facilities for conformance with the current version of the Guide for the Care and Use of Laboratory Animals (the Guide).

A. Veterinary Care and Monitoring of Animals

1) USDA Registration or License Number of Facility: ________________________________

Copies of all USDA Inspection Reports for the past three years should be obtained and attached to this form.

2) The Guide requires all research animals to be monitored daily for health status. List the names of individuals (including staff of satellite housing facility) who will monitor the animals, as well as their training and credentials for performing this function.

<table>
<thead>
<tr>
<th>Individual</th>
<th>Credentials</th>
<th>Synopsis of Training/Experience in Evaluating Animals</th>
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3) Describe the criteria to be employed when determining if animals in this study are healthy:

4) A veterinarian must be available to provide immediate treatment to animals in case of disease, accident, or consequences of research manipulations. Please provide the identity of the primary and back-up veterinarian who will provide such care for animals. Please note that the Attending Veterinarian at the University of Pittsburgh must be informed if emergency veterinary care is required for animals owned by the University of Pittsburgh.

<table>
<thead>
<tr>
<th>Name of Veterinarian</th>
<th>Name of Practice and Address</th>
<th>Phone Number</th>
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</table>
5) Appropriate treatment facilities must be available to provide veterinary care to animals. Describe the procedure room available to provide treatments for animals, as well as other facilities available for veterinary care at the housing site. If animals must be moved from the housing site to another location for provision of veterinary care, the distance and transport time between these sites should be indicated.

6) Describe procedures for maintaining medical records and documenting treatment of ill animals including: clinical laboratory findings, diagnosis, treatments, medical progress, etc. Identify individual(s) (titles, not necessarily names) responsible for maintaining such records and where the records are maintained.

7) If drugs will be administered at the satellite housing facility, describe the general storage arrangements for both controlled and non-controlled drugs. In addition, describe the record keeping procedures for controlled substances.
Attachment 1

B. Animal Environment, Housing, and Management

1) Describe the primary enclosure (e.g., cage, pen, stall).

<table>
<thead>
<tr>
<th>Species</th>
<th>Dimensions of Enclosure</th>
<th>Maximum Number Animals/Enclosure</th>
<th>Enclosure Composition &amp; Description</th>
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</table>

If enclosures with special ventilation are used, please describe.

If the animal facility includes a barrier, please describe.

2) Describe sheltered or outdoor housing, if applicable

Identify if the environment is a barn, corral, pasture, or island. __________________________

Methods used to protect animals from weather extremes, from predators, and from escape include:

<table>
<thead>
<tr>
<th>Type of Protection</th>
<th>Check all that apply</th>
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<tbody>
<tr>
<td>Windbreaks</td>
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<tr>
<td>Shelters</td>
<td></td>
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<td>Shaded areas</td>
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<td>Areas with forced ventilation</td>
<td></td>
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<td>Heat-radiating structures</td>
<td></td>
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<td>Access to conditioned spaces</td>
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<td>Other (describe):</td>
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</tbody>
</table>

Describe protective or escape mechanisms for submissive animals, how access to food and water is assured, provisions for enrichment, and efforts to group compatible animals.
Attachment 1

3) Temperature and Humidity

Describe briefly the heating and air-conditioning system performance. Provide method and frequency for assessing, monitoring, and documenting animal room or housing area temperature and humidity.

4) Ventilation

Briefly describe the performance aspects of the ventilation system. Provide method and frequency for assessing, monitoring, and documenting the animal room ventilation rates and pressure gradients (with adjacent areas).

Describe ventilation aspects of any special primary enclosures using forced ventilation.

If any air used in a room or primary enclosure is recycled, describe the source of the air and how gaseous and particulate contaminants are removed.
Attachment 1

5) Illumination

Describe lighting system for the species in use at your housing facility.

<table>
<thead>
<tr>
<th>Species</th>
<th>Light Intensity</th>
<th>Photoperiod (L:D)</th>
<th>Water-resistant light fixtures (yes/no)</th>
<th>Automatic control (yes/no)</th>
<th>Windows (yes/no)</th>
</tr>
</thead>
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</table>

6) Noise

Describe facility design features and other methods used to control, reduce, or prevent excessive noise in the animal facility.

7) Behavioral Management

Describe the structural environment of primary enclosures that may enhance the well-being of animals housed in cages, pens, or shelters.

<table>
<thead>
<tr>
<th>Species</th>
<th>Resting Boards</th>
<th>Shelves/Perches</th>
<th>Toys/Manipulanda</th>
<th>Foraging Opportunities</th>
<th>Nesting Material</th>
<th>Swings</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Describe efforts made to provide for animals’ social needs.
Describe steps taken with isolated or individually housed animals to compensate for the absence of other animals (e.g., interactions with humans, environmental enrichment).

Describe provisions to allow animals to exhibit species-typical activity patterns (e.g., exercise, access to pens, opportunity for exploration, foraging, nesting materials).

8) Husbandry—Food

List type and source of food stuffs.

Describe storage facilities of vendors, noting temperature and vermin control measures. If more than one source, describe each.

Describe storage facilities in the animal facility noting temperature and vermin control measures. If more than one facility, describe each.

Describe food storage in animal rooms.

Describe food preparation areas.

Describe how food is provided to various species (*ad libitum*, limited amounts, types of feeders).

Describe special food quality control procedures including procedures for rotating stock, monitoring milling dates, nutritional quality, bio-load, chemical contaminants, etc.

9) Husbandry—Water
Describe source, treatment or purification process, and how provided to the animals (pans, bottles with sipper tubes, automatic watering, etc.).

Methods of quality control including monitoring for contaminants.

10) Husbandry—Bedding

Describe type(s) and how used for various species (direct or indirect).

Describe storage facilities including vermin control measures (if more than one, describe for each area).

Describe quality control procedures including monitoring for contaminants.

11) Husbandry—Miscellaneous Animal Care and Use Equipment

Describe other animal care related equipment used in the animal care program (specialized equipment for exercise or enrichment, high pressure sprayers, vacuum cleaners, etc.).

12) Husbandry—Sanitation
a) Bedding change

Describe frequency of contact and non-contact bedding changes for each species and cage type (solid bottom or suspended) or pen.

Note the location where soiled bedding is removed from the cages and where clean bedding is placed into the cages.

b) Cleaning and disinfection of primary enclosures

Note the washing/sanitizing frequency and method for each of the following:

<table>
<thead>
<tr>
<th>Washing/Sanitizing Method (mechanical washer, hand washing, high-pressure sprayers, etc.)</th>
<th>Washing/Sanitizing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid bottom cages</td>
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<tr>
<td>Suspended wire bottom or slotted floor cages</td>
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<tr>
<td>Cage lids</td>
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<td>Filter tops</td>
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<tr>
<td>Cage racks and shelves</td>
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<tr>
<td>Cage pans under suspended cages</td>
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<tr>
<td>Play pens, floor pens, stalls, etc.</td>
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<tr>
<td>Corrals for primates or outdoor paddocks for livestock</td>
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</tbody>
</table>
c) Cleaning and disinfection of secondary enclosures

<table>
<thead>
<tr>
<th>Method (e.g., hose, high pressure washer, vacuum cleaner, mopping, etc.)</th>
<th>Cleaning/Sanitizing Agent (generic name)</th>
<th>Frequency</th>
<th>Other Comments</th>
</tr>
</thead>
</table>

### ANIMAL ROOMS
- Floors
- Walls
- Ceilings
- Ducts/Pipes
- Fixtures

### CORRIDORS
- Floors
- Walls
- Ceilings
- Ducts/Pipes
- Fixtures

### SUPPORT AREAS
(e.g., surgery, procedure rooms, etc.) Complete for each area:
- Floors
- Walls
- Ceilings
- Ducts/Pipes
- Fixtures

### IMPLEMENTS
(note whether or not shared)
- Mops
- Mop buckets
d) Sanitization of Cage Equipment and Transport Cages/Equipment/

<table>
<thead>
<tr>
<th>Method (e.g., hose, high pressure washer, vacuum cleaner, mopping, etc.)</th>
<th>Cleaning/Sanitizing Agent (generic name)</th>
<th>Frequency</th>
<th>Other Comments</th>
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<tbody>
<tr>
<td>Feeders</td>
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<tr>
<td>Watering Devices</td>
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<tr>
<td>Exercise devices and manipulanda used in environmental enrichment programs, etc.</td>
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<tr>
<td>Transport cages</td>
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<tr>
<td>Other transport equipment (list)</td>
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<tr>
<td>Vehicle(s)</td>
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</table>

e) Assessing the effectiveness of sanitation

Describe how the effectiveness of sanitization procedures is monitored (water temperature monitoring, microbiologic monitoring, visual inspections, etc.).
13) Husbandry—Waste Disposal

Describe the handling, storage, method and frequency of disposal, and final disposal location for each of the following:

a) Soiled bedding and refuse

b) Hazardous wastes - infectious, toxic, radioactive

14) Husbandry—Pest Control

Describe the program for controlling pests (insects, rodents, etc.) noting the control agent(s) used, where applied, and who oversees the program and applies the agent(s).

15) Husbandry—Emergency, Weekend, and Holiday Care

Describe procedures for providing weekend and holiday care. Indicate who (e.g. regular animal care staff, students, part-time staff, etc.) provides and oversees care and what procedures are performed. Indicate qualifications of weekend/holiday staff if not regular staff.

Describe procedures for contacting responsible animal care and/or veterinary personnel in case of an emergency.

Describe procedures for monitoring animal facility mechanical systems and notifying appropriate personnel in the event of a significant failure that occurs outside regular work hours.
Briefly describe the plan for responding to a disaster and identify those institutional components which would participate in the response.

16) Animal Transportation Using Vehicles from Satellite Facility

Describe motorized vehicles used for transporting animals, noting the type and how the cargo compartment is climatically controlled.

If the cargo compartment is not climatically controlled (i.e., no heating or air conditioning), discuss the ambient conditions (i.e., temperature range) under which animals will be transported using the vehicle.

17) Power and Lighting

Note if emergency power is provided for the animal facility and if so, what electrical services it maintains in the event the primary power source fails.

Give history of power failures to the animal facility. Note frequency and duration. If emergency power was not available during a power failure, describe steps taken to assure the comfort and well-being of the animals and the temperature extremes reached in the animal rooms during the failure.