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| <b>Washington State University</b>                         |   |
| <b><i>Institutional Animal Care and Use Committee</i></b>  |   |
| <b>Policy #1</b>   | <b>“Adequate Animal Care in Study Areas and Satellite Animal Housing Locations”</b> |
| <b>Approval Date: 8/3/2020 (Replacing version 2/28/18)</b> |   |

## A. Scope and Background

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The Guide for the Care and Use of Laboratory Animals (*the Guide*, NRC 2011) states: “Animals should be housed in facilities dedicated to or assigned for that purpose, not in laboratories merely for convenience. If animals must be maintained in a laboratory to satisfy the scientific aims of a protocol, that space should be appropriate to house and care for the animals and its use limited to the period during which it is required.” (p. 134).

The Washington State University Institutional Animal Care and Use Committee (IACUC) has developed the following policy to provide guidance regarding the requirements for establishing and maintaining animal housing facilities in a manner compliant with federal regulations and expectations. The design of animal facilities combined with appropriate animal housing and management are essential contributors to animal well-being, the quality of animal research and production, teaching or testing programs involving animals, and the health and safety of personnel.

All animal housing areas will be inspected by the IACUC at least once every six months as per federal regulations. Specific questions regarding housing and husbandry should be referred to Office of the Campus Veterinarian and questions regarding general animal use practices should be referred to the WSU Animal Welfare Program.

The references used for the development of this policy include the Guide for the Care and Use of Laboratory Animals (*the Guide*, NRC 2011), The Guide for the Care and Use of Agricultural Animals in Research and Testing (*The Ag Guide*, 2010) and the Animal Welfare Act Regulations (AWA).

### **DEFINITIONS:**

**A. Animal Housing Location/Area:** Any area where WSU research or teaching animals are housed for more than 12 hours.

**B. Centrally Managed Animal Housing Facilities:** An IACUC-approved animal facility designed specifically for animals and managed by professional animal care staff. The use of centrally managed facilities should be considered the first option for housing animals at WSU. A list of the WSU centrally managed animal facilities can be found in Appendix A.

**C. Animal Use or Study Location/Area:** Animal Use or Study Areas are laboratories, chambers, surgery rooms or other rooms where live animals are taken outside of the animal housing location for less than 12 hours. These areas are subject to review and approval by the IACUC committee at least every three years and typically visited as part of the semi-annual IACUC site visit process.

**D. Satellite Animal Housing Location/Area:** A satellite animal housing location is a building/room/area outside of the centrally-managed animal housing facilities where live animals are housed for more than 12 hours. These satellite animal facilities are primarily principal investigator (PI) managed facilities.

**E. Principal Investigator Managed Animal Housing Location/Area:** Any investigator managed building, room, area, enclosure, or other containment site in which animals are housed for periods longer than 12 hours. It is the responsibility of the PI to ensure that all federal and institutional requirements and expectations are followed and implemented consistently. The majority of principal investigator managed facilities are considered satellite locations.

## **B. Policy**

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All animal housing and procedure areas must be approved by the Institutional Animal Care and Use Committee (IACUC) prior to use and are subject to semi-annual inspections by the IACUC; regular veterinary rounds by the Office of the Campus Veterinarian (OCV) ; inspection by the USDA-APHIS Veterinary Medical Officer; tri-annual visits by the AAALAC-International accreditation team; and other visits and inspections that are deemed necessary (Office of Laboratory Animal Welfare/Public Health Service, Department of Labor and Industries, etc.). Please refer to [WSU IACUC Policy #34](#) concerning the Semiannual Program Review for more information.

If the housing needs of an animal species or protocol cannot be adequately met within a WSU centrally managed animal facility, the Principal Investigator (PI) must request

approval from the WSU IACUC to establish a specialized animal housing location. Once approval is granted – the PI assumes the responsibilities for adequate animal care. The housing location(s) and justification must also be included in the IACUC approved Animal Subject Approval Form (ASAF).

### **C. Steps for Satellite Housing Location Approval**

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1. Departmental approval for the space assignment.
2. Satellite location(s) and justification is included in the ASAF.
3. Identification of personnel involved in animal care management and husbandry
4. Animal Care Plan with approval by the Campus Veterinarian or Designee. Animal care that is associated with exceptions to the *Guide, Ag Guide* or *AWA* require IACUC approval
5. Institutional Biosafety Committee (IBC), Radiation Safety Office (RSO) and Environmental Health and Safety (EHS) approvals as needed if associated with use of a hazard.
6. Completed mandatory training for personnel
7. Access or keys provided to the Office of the Campus Veterinarian.
8. Final site inspection and approval by the IACUC.

### **D. Components of the Animal Care Plan**

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1. A written Animal Care Plan is required for each satellite housing location. It must include standard operating procedure (s) (SOP(s) to address the topics described in this policy.
2. OCV assistance is available for templates, guidance, OCV database notification access, veterinary care and training. Contact at <https://campusvet.wsu.edu/>, 509-335-6246 or [or.ocv.alert@wsu.edu](mailto:or.ocv.alert@wsu.edu)
3. Topics to include in the Animal Care Plan are described below.

A. Personnel Training (Staff, Students, Volunteers, Faculty, etc.)

1. All IACUC mandated training must be completed and documented prior to assuming responsibility for animal care. Information regarding training requirements and resources can be found at [WSU IACUC webpage](#) under [WSU IACUC Policy #20](#). Personnel providing animal care require the following
  - a. Principles of Animal Care (PAC): online
  - b. Occupational Health Training- Animals (OHT-A): online
  - c. Satellite Animal Housing Location Training (SAHLT): online
  - d. Training on the individualized Animal Care Plan for the area: documented by PI or designee
2. Safety training must be included as mandated through the IBC, RSO and EHS if animal use is associated with use of a hazard
3. Training records need to be made available on request to the Animal Welfare Program, Office of the Campus Veterinarian and regulatory officials.

B. Daily Care of Animals

1. All animals must be cared for and observed at least daily, including weekends & holidays.
2. Daily animal care/observation must be documented and recorded in ink. Sample templates are available at <https://iacuc.wsu.edu/forms/>.
3. Exceptions to daily observation and care must be described and justified in your ASAF and have prior approval by the IACUC
4. Abnormal (ill, injured, or abnormal behavior), deceased animals and facility issues that impact animal welfare that are identified during daily care must be promptly reported to OCV (see below and refer to the Notification Protocol detailed on the [IACUC website](#).)

C. Environmental Monitoring of Temperature, Humidity and Ventilation

1. The area where the animals are housed should be suitable for that species. Indoor climate-controlled housing areas must be monitored daily to ensure proper environmental parameters (i.e. temperature, humidity, ventilation, etc.) are being maintained.
2. A minimum/maximum thermometer & hygrometer should be placed in each animal room and the temperature and humidity readings recorded daily. Refer to *The Guide*, the AWA or *the Ag Guide* for species-specific requirements on environmental parameters or contact OCV.

3. For rodents, investigators should be aware of the effects of low relative humidity and mitigation. Please refer to [WSU IACUC SOP #12](#) for more information.
4. Ventilation rates of indoor housing areas are measured as needed and at least every 3 years. Aquatic species housing is typically excluded from monitoring
5. Documentation of environmental monitoring is not required for livestock and wildlife housed in barns, pastures and other outdoor housing locations but adequate ventilation and housing must be provided as described in *the Ag Guide*.

#### D. Veterinary Care of Animals

1. The Attending Veterinarian & OCV designees must have access to all animals in all facilities approved for animal housing and use.
2. Office of the Campus Veterinarian must be informed of **all abnormal animals** at WSU. Use the Notification Protocol detailed on the [IACUC website](#).
3. The PI or designee will have access to the OCV Animal Health Database located at [MyResearch](#) to log in all abnormal animals or if no new cases, to log in daily on weekdays to indicate “No Change”. For training on the use of the OCV Animal Health Database – please contact the OCV vet staff at 509-335-6246.
4. The management of animals for specific medical conditions may be provided by investigators, students or research staff following the instructions provided under the following WSU IACUC approved SOPs. All the IACUC SOPs are available on the [IACUC website](#). Examples include:
  - a. [SOP #9](#): Common Minor Medical Conditions of Rodents and Treatments
  - b. [SOP#11](#): Management of Ulcerative Dermatitis in Mice
  - c. [SOP #12](#): Effects of Low Humidity and Treatment of Ringtail in Rodents
5. If a health issue is listed on an IACUC SOP, an approved Herd Health SOP or a protocol specific issue then proceed with treatment AND notify OCV.
6. Personnel involved in medical assessments and treatments should have documented training or experience through OCV or other source.
7. If the health problem is not listed on an OCV or IACUC approved SOP or protocol, a veterinarian must be called to assess and develop a medical treatment plan. All medical treatment plans must be documented in the animal health record.

#### E. Water, Feeding and Storage of Feed

1. Feed animals a non-expired, palatable, non-contaminated, and nutritionally adequate feed daily or according to their species requirements.
2. Maintain a written SOP with feeding instructions including amount and frequency.

3. Open bags of feed must be stored in enclosed, vermin-proof containers. Label feed containers with type of feed and milling date (if feed is not milled, use the date of purchased/acquisition).
4. For agricultural animals & wildlife, feed storage should be maintained to prevent chemical, water and vermin contamination and to limit microbial growth
5. Environmentally controlled areas used for feed storage must be monitored using a minimum/maximum thermometer/hygrometer and documented daily
6. Animals should have access to potable, non-contaminated drinking water as required by the species.
7. Please refer to [WSU IACUC Policy #35](#) of food, fluid restriction and diet manipulation if there are deviations to standard feeding practices.

#### F. Space Requirements and Environmental Enrichment

1. Housing space requirements are detailed in *The Guide*, the AWA and *the Ag Guide* and varies by species, number in a group and sizes of animals.
2. Environmental Enrichment is needed to enhance animal well-being and encourage species specific behavior. Refer to *The Guide*, the AWA and *the Ag Guide* and to [IACUC Policy #30](#).
3. Exceptions to the space requirements and enrichment must have prior approval by the IACUC unless covered under IACUC Policy #30

#### G. Illumination

1. Indoor animal housing areas should be equipped with controlled lighting systems that provide regular diurnal cycles. Inadvertent light exposure during the dark cycle should be avoided.
2. Illumination should be sufficient for the animal's well-being, while permitting for good housekeeping, adequate animal inspection, and safe working conditions.
3. Exceptions to illumination standards in *The Guide*, the AWA and *the Ag Guide* must have prior approval by the IACUC
4. Contact OCV for species specific recommendations and light measurements. Light levels are measured at minimum of every 3 years for all indoor housing areas.

#### H. Sanitation and Housekeeping

1. Cages/enclosures must be sanitized regularly to provide a healthy environment for the animal.
2. *The Guide* standard states that enclosures and accessories should be sanitized at least once every 2 weeks.

- a. *For rodents*, solid bottom caging, bottles and sipper tubes usually require sanitation at least once a week and forced ventilation rodent caging is typically sanitized every 2 weeks. Other circumstances may require more frequent sanitation.
- b. Ammonia, temperature and humidity testing can be performed to help develop a sanitation schedule.
3. If in a laboratory or similar space, a specific location should be designated solely for animal housing and be free of clutter and hazards.
4. The location should have surfaces that are easily sanitized. These surfaces should be wiped clean daily and sanitized at least weekly.
5. The written Animal Care Plan must include the enclosure sanitation and room cleaning schedule for the location. Cleaning duties must be documented when performed.
6. Please refer to [WSU IACUC SOP #5](#) for monitoring sanitation practices.

I. Pest Control

1. Please refer to [WSU IACUC Policy #15](#) for additional information about pest control in animal facilities

J. Waste Disposal

1. Investigators are responsible for proper disposal of conventional and hazardous waste.
2. Hazardous waste containers (sharps, biohazard, chemical, flammable, radioactive) must be leak proof and adequately labeled.
3. Contact Waste Management for your campus for assistance. For off-campus locations – waste disposal should be in accordance with local regulations, ordinances and policy.

K. Animal Transportation, Acquisition, Disposition, and Identification

1. Please refer to the following [WSU IACUC policies](#)
  - a. [WSU IACUC Policy #5](#) Animal Acquisition and Disposition
  - b. [WSU IACUC Policy #33](#) Animal Transportation
2. Animals should be clearly identified that include name of responsible investigator(s), source, species/strain/breed, number of animals in cage/enclosure, approved IACUC protocol # (ASAF), and information such as birth/age, arrival, and surgery dates (where applicable). Fish, amphibians and rodents may be identified as group. If there is only one PI or ASAF housing in the room, there can be a posted notice in the room

- with all the common information (PI, ASAF, species, etc.) and then individual cage or tank identifiers.
3. Large Animal identification should follow [IACUC SOP# 7](#): Large Animal Branding, Ear Tagging and Microchip Implanting.
  4. Identification of rabbits and rodents should follow [IACUC SOP #8](#)

L. Acclimation and Stabilization of Animals

1. All approved protocols should follow the [IACUC Policy #12](#) on Acclimation and Stabilization of Animals Used for Research or Teaching unless there is an IACUC approved exemption.
2. The standard minimum acclimation time for rodents is 3 days and for non-rodent mammals is 7 days.
3. Additional time may be advised to stabilize animals to the environment. Variables are animal type, source, transport conditions and nature of research.

M. Animal Numbers and Tracking Procedures

1. Federal regulations require that institutions account for all animals used or produced under an IACUC protocol. Refer to the [IACUC Guideline](#) for counting animals for additional information.
2. Investigators and facility management must track the number of animals used within each USDA pain category B, C, D, or E.
3. For satellite housing locations, animal numbers are collected on a quarterly basis.

N. Signage, Emergency information and Security

1. All animal housing areas must have the [WSU-IACUC Guidelines](#) for Reporting Concerns About The Care and Use of Animals Policy and the Office of the Campus Veterinarian Contact Information posted
2. Any signage required for existing chemical, biohazard and radiation hazards must be kept current. If the hazard status changes, the signage must be updated.
3. Emergency information must include office and after-hours phone contact numbers for PI, research staff, fire, ambulance, police, veterinarian contact if other than OCV and Office of the Campus Veterinarian.
4. The animal study area and satellite animal housing facilities should be secure with access restricted to authorized personnel only.
5. Adverse Event and Disaster Plan: All animal housing areas must have a written plan that addresses potential adverse events, emergencies and disasters. Individuals responsible for daily animal care must have access and be trained on this plan.



O. Additional Information

1. Husbandry practices which are exceptions to the standards described in the *The Guide*, the AWA, *the Ag Guide* and institutional policies must be described and approved in the ASAF
2. OCV assistance is available for templates, guidance, OCV database notification access and training. Contact at <https://campusvet.wsu.edu/>, 509-335-6246 or [or.ocv.alert@wsu.edu](mailto:or.ocv.alert@wsu.edu)
3. To acquire a copy of the Guide for the Care and Use of Laboratory Animals <https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf>

**LIST of APPENDICES**

**APPENDIX A:** List of centrally-managed animal housing locations

## **APPENDIX A: WSU Animal Facilities**

### **WSU Animal Facilities – Centrally managed**

#### **WSU Pullman Campus:**

- Animal Disease Biotechnology Facility
- Animal Resource Unit Large Animal Facilities
- Biotechnology Life Sciences Vivarium
- Bustad Hall Vivarium
- Cattle Feeding and Reproduction Laboratory Facility
- College of Vet Med Research and Teaching Facilities (McCoy Hall, Veterinary Teaching Hospital)
- Eastlick Hall Vivarium
- Ensminger Beef Center and pastures
- Experimental Animal Laboratory Building Vivarium
- IVS 188E
- Knott Dairy Center
- Veterinary Biomedical Research Vivarium
- Wegner Hall Vivarium

#### **WSU USDA ARS Campuses:**

- USDA ARS Pullman
- USDA ARS Moscow, Idaho

#### **WSU Spokane Campus:**

- Pharmaceutical and Biomedical Science Vivarium
- Health Education and Research Building Vivarium