

**Washington State University
Institutional Animal Care and Use Committee**

Terrestrial/Aquatics Animal Housing, Support Areas and Transport

Location: _____ **Date:** _____

Observers: _____

Species: _____

Copies to be sent to: _____

(List the Facility Manager, Department Chair or other responsible personnel)

1. Location:	A*	M	S	NA	SFI
a. Animal areas separate from personnel areas (Guide, p 134).					
b. Separation of species (Guide, p 111).					
c. Separation by disease status (Guide, p 111): <i>What biosecurity procedures are used?</i>					
d. Security and access control (Guide, p 151): <i>How do personnel get access & are personnel who leave removed from access? What are personnel supposed to do if they see unauthorized personnel present?</i>					
2. Construction:	A*	M	S	NA	SFI
a. Corridors (Guide, p 136): <i>Any cracks or unsanitazable surfaces in wall, floor, ceilings?</i>					
b. Animal room doors (Guide, p 137): <i>Door sweeps present, windows in doors.</i>					
c. Exterior windows (Guide, p 137).					
d. Floors (Guide, p 137): <i>Any cracks or unsanitazable surfaces?</i>					
e. Drainage (Guide, p 138): <i>Open floor drains in rodent areas?</i>					
f. Walls and Ceilings (Guide, p 138): <i>Any cracks or unsanitazable surfaces?</i>					
g. Heating ventilation and air conditioning (Guide, p 139). <ul style="list-style-type: none"> ▪ <i>Air flow is adequate.</i> ▪ <i>Air flow direction is appropriate for biosecurity and occupational safety (surgery, cage wash, etc.).</i> ▪ <i>Air flow data is available for all required areas (surgery, necropsy?)</i> 					
h. Power and lighting (Guide, p 141): <i>How are cycles controlled?</i>					
i. GFCI outlets in aquatic areas (Guide, p 141,150).					
j. Noise control (Guide, p 142): <i>If excessive, has it been measured, is there signage, are there limits established for occupational exposure, and does it affect the animals/research?</i>					
k. Vibration control (Guide, p 142).					
l. Environmental monitoring (Guide, p 143): <i>Is there facility notification in the event of power failure, temperature deviation outside of accepted range or photoperiods alteration?</i>					
m. Backup power for aquatic systems? (Guide, p 143)					
3. Room/Cage:	A*	M	S	NA	SFI
a. Temperature and humidity (Guide, p 43): <ul style="list-style-type: none"> ▪ <i>Are monitoring sheets recorded daily for indoor areas? Ask for the previous months sheets.</i> ▪ <i>If adverse health effects associated with low humidity are present (ringtail), what is being done to increase relative humidity.</i> 					

b. Ventilation and air quality (Guide, p 45): <ul style="list-style-type: none"> Air flow is adequate. Air flow direction is appropriate for biosecurity and occupational safety (infected rooms, immune suppressed/barrier rooms, etc.). 					
c. Illumination (Guide, p 47).					
d. Noise and vibration (Guide, p 49).					
e. Hazard: <i>What is the necessary PPE for the room and is it available?</i>					
4. Primary Enclosure:	A*	M	S	NA	SFI
a. Space meets physiologic, behavioral, and social needs (Guide, pp 51, 55-63): <i>Overcrowded cages without IACUC approval for exception?</i>					
b. Secure environment provided (Guide, p 51).					
c. Durable, nontoxic materials in good repair and no risk of injury (Guide, p 51): <i>Any sharp edges, rust, loose wires? Cracked plastic caging?</i>					
d. Flooring is safe and appropriate for species (Guide, p 51).					
e. Adequate bedding and structures for resting, sleeping, breeding (Guide, p 52).					
f. Objective assessments of housing and management are made (Guide, p 52).					
g. Procedures for routine husbandry are documented (Guide, p 52): <i>Ask to see documentation for cleaning and sanitation.</i>					
h. Socially housed animals can escape or hide to avoid aggression (Guide, p 55).					
i. Cage height provides adequate clearance (Guide, p 56): <i>Older rat and rabbit cages may not have adequate height. Animals must be able to stand in normal posture without touching the enclosure ceiling.</i>					
j. Animals express natural postures, can turn around, access food and water, and rest away from urine and feces (Guide, p 56) [must] .					
k. Rationale for Guide/USDA space exceptions approved by IACUC and based on performance indices (Guide, p 56).					
l. Dogs and cats allowed to exercise and provided human interaction (Guide, p 58).					
m. Agricultural animals are housed socially (Guide, p 60, WSU IACUC policy #30).					
n. Food troughs and water devices for agricultural animals allow access for all animals (Guide, p 60): <i>Are they clean and in good repair?</i>					
5. Environmental Enrichment, Behavioral and Social Management: (WSU IACUC policy #30)	A*	M	S	NA	SFI
a. Structures and resources promote species typical behavior (Guide, pp 52-54) <ul style="list-style-type: none"> Does the facility have an Environmental Enrichment, Behavioral and Social Management SOP or is it part of an ASAF? 					
b. Novelty of enrichment is considered (Guide, p 53).					
c. Species specific plans for housing including enrichment, behavior and activity are developed and reviewed regularly by IACUC, researchers and veterinarian (Guide, pp 53, 58, 60, 63).					
d. Animal care personnel receive training to identify abnormal animal behaviors (Guide, p 53): <i>How is the training done and where is it documented?</i>					
e. Stability of pairs or groups is monitored for incompatibility (Guide, p 64).					
f. Single housing is justified for social species (Guide, p 64): <i>Is single housing approved by the IACUC or fall under WSU IACUC policy #30?</i>					
g. Single housing is limited to the minimum period necessary (Guide, p 64).					
h. Additional enrichment for single housed animals is provided (Guide, p 64).					
i. Single housing is reviewed regularly by IACUC and veterinarian (Guide, p 64).					
j. Habituation to routine procedures is part of enrichment program (Guide, p 64).					
6. Sheltered or Outdoor Housing: (e.g., barns, corrals, pastures, islands)	A*	M	S	NA	SFI

a. Weather protection and opportunity for retreat (Guide, p 54) [must] . ▪ <i>Is fencing & any wooden surfaces (feeders) in good repair? Any sharp edges/wires?</i>					
b. Appropriate size (Guide, p 54): <i>There should be adequate shelter space for all the animals including submissive animals.</i>					
c. Ventilation and sanitation of shelter (no waste/moisture build-up) (Guide, p 54).					
d. Animal acclimation (Guide, p 55).					
e. Social compatibility (Guide, p 55).					
f. Roundup/restraint procedures (Guide, p 55).					
g. Appropriate security (Guide, p 55).					
7. Naturalistic Environments:	A*	M	S	NA	SFI
a. Animals added /removed with consideration of effect on group (Guide, p 55).					
b. Adequate food, fresh water, and shelter ensured (Guide, p 55).					
8. Food:	A*	M	S	NA	SFI
a. Feeding schedule and procedures including caloric intake management (Guide, pp 65-67).					
b. Contamination prevention (Guide, p 65).					
c. Vendor quality control (Guide, p 66).					
d. Storage in sealed containers (Guide, p 66).					
e. Expiration date labeling (Guide, p 66).					
f. Expired feed or supplements (Guide p 66).					
g. Vermin control (Guide, p 66).					
h. Rotation of stocks (Guide, p 66).					
9. Water:	A*	M	S	NA	SFI
a. Ad libitum unless justified (Guide, pp 67-68).					
b. The frequency of water bottle changing/tank cleaning is regular and adequate					
c. Outside water sources are protected from freezing.					
d. Electric heat sources for waterers are designed & placed to prevent electrical shocks.					
e. QC procedures (Guide, pp 67-68).					
10. Bedding and Nesting Materials:	A*	M	S	NA	SFI
a. Species appropriate (Guide, pp 68-69).					
b. Keeps animals dry (Guide, pp 68-69).					
c. QC procedures (Guide, pp 68-69).					
d. Minimizes scientific variables (Guide, pp 68-69).					
11. Sanitation:	A*	M	S	NA	SFI
a. Frequency of bedding/substrate change (Guide, p 70). ▪ <i>Respiratory protection is available and in use during cage dumping.</i>					
b. Cleaning and disinfection of microenvironment (Guide, pp 70-71): <i>How often are cages changed? If > every 2 weeks for ventilated caging, is this guide exception listed on an IACUC approved SOP? If > every week for static caging, is this guide exception listed on an IACUC approved SOP?</i>					
c. Cleaning and disinfection of microenvironment (Guide, p 72): <i>Is the room cleaned and disinfected regularly? Is sanitation documented?</i>					
d. Cleaning and disinfection of laboratory, surgery, and behavioral testing areas: <i>Is the room cleaned and disinfected regularly? Is sanitation documented?</i>					

e. Assessing effectiveness (Guide, p 73, WSU IACUC policy #5).					
f. Hand washing, cage washers and autoclaves: <i>How is efficacy assessed?</i>					
12. Waste Disposal:	A*	M	S	NA	SFI
a. Procedures for collection (Guide, pp 73-74). <i>Personnel use respiratory protection while dumping bedding (dumping station or other respiratory protection).</i>					
b. Procedures for storage and disposal (Guide, pp 73-74).					
c. Hazardous wastes are rendered safe before removal from facility (Guide, pp 73-74). [must] <i>The hazard SOP is posted and the necessary PPE is present. Personnel are following the SOP.</i>					
d. Animal carcasses (Guide, pp 73-74).					
13. Pest Control:	A*	M	S	NA	SFI
a. Regularly scheduled (Guide, p 74).					
b. Documented program including control of rodent pests and insecticide use (Guide, p 74): <i>SOP/documentation of vermin control is available.</i>					
c. If live traps are used, they are monitored & documented daily.					
d. Door sweeps are present and in good repair.					
14. Emergency, Weekend, and Holiday Animal Care:	A*	M	S	NA	SFI
a. Care provided by qualified personnel every day (Guide, p 74): <i>Daily care sheets are filled out every day unless IACUC exempted. Ask to see previous month's sheets.</i>					
b. Provision for accessible contact information (Guide, p 74): <i>Emergency contact information is posted.</i>					
c. Monitoring of backup systems (Guide, p 143).					
d. Veterinary care available after hours, weekends, and holidays (Guide, pp 74, 114) [must] . <i>OCV notification policy is posted. If other than OCV veterinary services used, the other veterinary contact posted.</i>					
e. For aquatics - Emergency response plans in place to address major system failures (Guide, 87) including power failure pump & oxygenation failure.					
f. A disaster plan that takes into account both personnel and animals (Guide, p 75).					
g. Signage: <i>Whistle blower policy, emergency contact information.</i>					
15. Identification:	A*	M	S	NA	SFI
a. Cage/rack cards contain required information (Guide, p 75): <i>Animal id/description, source, date of arrival, DOB/age, IACUC/ASAF number, PI name.</i>					
b. Large animals (WSU IACUC SOP #7).					
c. Genotype information included and standardized nomenclature used when applicable (Guide, p 75).					
16. Recordkeeping:	A*	M	S	NA	SFI

a. Clinical records accessible and contain appropriate information (Guide, pp 75-76) <ul style="list-style-type: none"> ▪ All medical treatments are under a herd health SOP, ASAF or under direction of a veterinarian. ▪ All treatments/procedures are documented with date and initials of provider. ▪ If animals have had surgery, surgical records are accessible. ▪ All animals used are listed on the IACUC animal tracking database. ▪ All animals are under an active protocol. If not, they are on the holding protocol. ▪ Animal mortality and morbidity is documented via OCV database and/or other record. 					
b. Records are provided when animals are transferred between institutions (Guide, p 75).					
17. Breeding Genetics and Nomenclature:	A*	M	S	NA	SFI
a. Appropriate genetic records, management and monitoring procedures (Guide, p 76).					
b. Phenotypes that affect wellbeing are reported to IACUC and effectively managed (Guide, p 77). Adverse phenotypes are reported to the IACUC.					
18. Storage:	A*	M	S	NA	SFI
a. Adequate space for equipment, supplies, food, bedding and refuse (Guide, p 141). <ul style="list-style-type: none"> ▪ Storage inside animal housing & use rooms is minimal and sanitizable (no excess clutter & cardboard boxes). ▪ Heavy items or chemicals are not stored on high shelves. 					
b. Bedding in vermin-free area and protected from contamination (Guide, p 141).					
c. Food in vermin-free, temperature and humidity controlled area and protected from contamination (Guide, p 141): <i>The temperature is monitored regularly in the feed room and documented?</i>					
d. Refuse storage is separate (Guide, p 141).					
e. Carcass and animal tissue storage is separate, refrigerated below 7°C and cleanable (Guide, p 141): <i>Carcass storage is properly labeled.</i>					
19. Personnel:	A*	M	S	NA	SFI
a. Adequate space for locker rooms, administration and training (Guide, p 135).					
b. Personnel working with animals in the facility are listed on either an ASAF, a facility personnel ASAF or a Herd SOP approved by the WSU IACUC.					
c. All personnel have completed Principles of Animal Care and Occupational Health Training.					
d. Training has been conducted and documented for husbandry duties, equipment operation, chemical handling, security procedures, animal health monitoring, safe/humane animal handling, etc.					
e. Training is documented. Staff training records are located: _____					
f. Training is documented and signage is posted for cage washer emergency stop & egress.					
20. Animal Use Areas:	A*	M	S	NA	SFI
a. Location is functional, secure and sanitizable as necessary.					

b. Biologic, chemical, and physical hazards: <ul style="list-style-type: none"> ▪ <i>Appropriate chemical labeling, storage, mixing and use.</i> ▪ <i>Annual certification of fume hoods, biosafety cabinets and anesthetic vaporizers.</i> ▪ <i>Any anesthetic waste gases are appropriately scavenged.</i> ▪ <i>Compressed gas cylinders are secured.</i> ▪ <i>Appropriate signage and posting of SOPs and corresponding PPE available.</i> ▪ <i>Any required animal restraint equipment (chutes, stocks, snares, restrainers) is available, in good repair.</i> ▪ <i>Eye wash stations are flushed regularly and flushing documented.</i> ▪ <i>Safe sharps disposal system available and used (Guide, p 74).</i> 					
c. Expired disinfectants or chemicals (Guide, p 69)					
d. Appropriate drug storage, control, expiration date monitoring, non-pharmaceutical drug approvals & DEA/WA licensing (Guide, p 115, 122).					
e. Expired drugs. (Guide, p 122 and OLAW FAQs F.5)					
f. Expired medical materials. (Guide, p 117 and OLAW FAQs F.5)					
g. Euthanasia: <ul style="list-style-type: none"> ▪ <i>Personnel are trained in euthanasia techniques.</i> ▪ <i>CO2 flowmeters or pre-set meters are in use for rodent euthanasia.</i> ▪ <i>Animal euthanasia is conducted outside the animal housing room unless exempted.</i> ▪ <i>Animal death is verified by secondary means or monitoring.</i> 					
21. Other:	A*	M	S	NA	SFI
Aquatic Animal Housing and Support Areas					
22. Water Quality:	A*	M	S	NA	SFI
a. Water quality is appropriately monitored and recorded regularly (pH, ammonia, nitrates, nitrite, etc.).					
b. Standards for acceptable quality are established (Guide, p 78).					
c. Chlorine, chloramines, chemical, and reactive bio-products are removed or neutralized prior to use in aquatic systems (Guide, pp78, 86) [must].					
d. Water source is based on appropriate controls and research requirements (Guide, p 79).					
e. Bio-filter is of sufficient size to process bio-load (Guide, p 80) [must].					
23. Waste Disposal:	A*	M	S	NA	SFI
a. Procedures for collection (Guide, pp 73-74).					
b. Hazardous wastes are rendered safe before removal from facility (Guide, pp 73-74) [must]. The hazard SOP is posted and the necessary PPE is present. Personnel are following the SOP?					

c. Water from tanks with genetically engineered fish, infected fish or Xenopus is processed before disposal according to the SOP. (Guide, pp 87).					
d. Animal carcasses (Guide, pp 73-74).					
24. Identification:	A*	M	S	NA	SFI
a. Tank cards contain required information (Guide, pp 75, 87).					
25. Storage:	A*	M	S	NA	SFI
a. Adequate space for equipment, supplies, food, substrate and refuse (Guide, p 141). <ul style="list-style-type: none"> ▪ <i>Storage inside animal housing & use rooms is minimal and sanitizable.</i> ▪ <i>Heavy items or chemicals are not stored on high shelves or above tanks.</i> 					
26. Other:	A*	M	S	NA	SFI
Aseptic Rodent Surgery					
27. General Considerations: (WSU IACUC SOP #3 & 5 & WSU IACUC POLICY #6 & 31)	A*	M	S	NA	SFI
a. Location/procedure timing minimizes traffic/contamination (Guide, p 144).					
b. Functional components (surgical support, animal preparation area, sink, operating area, postoperative recovery area) are available. Operating area is separated (physically or otherwise) (Guide, p 144).					
c. Safe sharps disposal system (Guide, p 74).					
d. Appropriate drug storage, labeling, control, expiration date monitoring & DEA/WA licensing, non-pharmaceutical drug use approved (Guide, pp 115, 122).					
e. Adequate records of anesthesia and perioperative care (Guide, p 122).					
f. Aseptic procedures in use for all survival surgery at all surgical sites (Guide, pp 118-119).					
28. Operating Area:	A*	M	S	NA	SFI
a. Operating area is uncluttered & work surfaces sanitized (Guide, p 144).					
b. Lighting safe and adequate (Guide, p 145).					
c. Anesthetic gas vaporizers are serviced by qualified personnel yearly (WSU IACUC policy #31).					
d. Scavenging of anesthetic gases is implemented. Active charcoal canisters are weighed regularly. Exhaust systems are certified as required. (Guide, p 145, WSU IACUC policy #31).					
29. Surgical Support:	A*	M	S	NA	SFI
a. Facility for washing, sterilizing, storing instruments and supplies (Guide, p 145).					
b. Autoclave monitoring procedures are implemented (Guide, pp 119, 145). <i>What autoclaves are used to sterilize instruments and how is autoclave efficacy monitored? Are biological indicators used?</i>					

c. Storage of autoclaved materials maintains sterility (Guide, p 145). <i>Autoclaved materials are covered and marked with date of autoclaving.</i>					
d. If multiple surgeries are done with the same set of instruments, instruments are re-sterilized between animals.					
e. Cold sterilization procedures are appropriate (Guide, p 119).					
30. Animal Preparation: (Guide, p 145)	A*	M	S	NA	SFI
a. The operative area is physically or procedurally protected from hair clipping & initial scrubbing procedures.					
b. Animal is adequately anesthetized according to the relevant ASAF.					
c. Hair removal and scrub is conducted at ALL SURGICAL SITES.					
31. Surgeon Preparation:	A*	M	S	NA	SFI
a. Surgeon wears a clean lab coat or surgical gown & a face mask.					
b. Sterile surgical gloves are used for all surgeries and at all surgical sites. If contaminated, surgical gloves are changed (Guide, p 145).					
32. Postoperative Recovery:	A*	M	S	NA	SFI
a. Adequate observation is conducted as described in the ASAF.					
b. Post-operative analgesia described in the ASAF is provided and documented.					
33. Records:	A*	M	S	NA	SFI
a. Surgeon training is adequate and documented.					
b. Appropriate records of the surgical procedure, anesthesia and pre- and post-operative care are maintained.					
34. Other:	A*	M	S	NA	SFI
Cage Wash					
35. Construction and Operation:	A*	M	S	NA	SFI
a. Dedicated central area for sanitizing cages and equipment is provided (Guide, p 143).					
b. Cage-washing equipment meets need; maintenance records (Guide, p 143).					
c. Convenient to animal areas/waste disposal (Guide, p 143).					
d. Ease of access (including door size) facilitates use (Guide, p 143).					
e. Sufficient space for staging and maneuvering (Guide, p 143).					
f. Safety precautions/PPE/clothing/equipment used for waste disposal/prewash/acid wash (Guide, p 143).					
g. <i>Personnel use respiratory protection while dumping bedding (dumping station or PPE).</i>					
h. Traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (Guide, p 143).					
i. Insulation and/or sound attenuation present as needed (Guide, p 143).					
j. Ventilation meets heat and humidity load (Guide, p 143).					
k. Safety features (e.g., SOPs and training, warning signs, eyewash stations/flush log) are in use and training being provided? (Guide, p 143).					
l. Functioning safety devices and training to prevent entrapment in washer/sterilizers (Guide, p 143).					

m. Cage wash temperatures are monitored and records are available of temperature tape log and quarterly sanitation monitoring participation (Guide, p 73).					
n. Appropriate clean cage storage (Guide, p 141).					
o. Any handwashing or presoaking (sipper tubes, etc...), SOP.					
36. Other:	A*	M	S	NA	SFI
Animal Transport Vehicles & Trailers					
37. General Considerations:	A*	M	S	NA	SFI
a. Vehicle/Trailer is of adequate size, strength & ventilation for animals carried (Guide, pg. 55).					
b. Flooring is easily cleaned, sanitized and is made of material to minimize slip (Ag Guide, pg. 55).					
c. Vehicle/Trailer is in good repair, routine maintenance, clean and in good appearance (WSU SPPM 7.10).					
d. Records of vehicle/trailer maintenance and repairs are available (WSU SPPM 7.10).					
38. Animal Safety & Wellbeing in Transport:	A*	M	S	NA	SFI
a. Surfaces that come into contact with animals are made of material which can be sanitized and does not have areas of entrapment, sharp edges, protrusions or other issues that could harm the animals (Ag Guide, Chapter 5).					
b. Recommended minimum area allowances in transport accommodations for transporting animals in groups are followed (Ag Guide, Chapter 5).					
c. Transportation and handling stress of animals is monitored and reduced when possible; (Guide, pgs 107-109 & Ag. Guide Chapter 5). <ul style="list-style-type: none"> ▪ This includes protection against heat and cold stress during transport as per WSU IACUC Policy #33. 					
d. When appropriate acclimatizing and training animals to load and unload from transport vehicle/trailer to reduce handling stress and injury.					
e. Grouped animals transported in the same vehicle, crate, trailer, cage must be compatible. (Ag Guide, Chapter 5).					
39. Personnel:	A*	M	S	NA	SFI
a. Drivers are trained to inspect vehicle/trailer prior to each trip to check for deteriorating latches, tiers, hitches, tires, flooring, etc. that could pose safety concerns for animals and/or personnel. (Ag Guide, Chapter 5). Pre-trip inspection checklists are recommended.					
40. Records:	A*	M	S	NA	SFI
a. For animals moved out of WSU ownership, across state or US borders, etc. - animal transport documentation (haul slips, CVIs, WSU Animal Transport form, etc) are maintained to show legal movement and/or ownership transfer of animals (WSU IACUC policy#33).					
41. Other:	A*	M	S	NA	SFI

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- *A** = acceptable
- M** = minor deficiency
- S** = significant deficiency (is or may be a threat to animal health or safety)
- C** = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)
- NA** = not applicable
- SFI** = suggestion for improvement

NOTES: