

Institutional Animal Care and Use Committee (IACUC)

Registration Number with NCBE, KSA: HAP-02-J-042.



Inspection Checklist - Terrestrial Facilities

1. Location:

- 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*)
- d. security and access control (*Guide, p 151*)

2. Construction:

- a. corridors (*Guide, p 136*)
- b. animal room doors (*Guide, p 137*)
- c. exterior windows (*Guide, p 137*)
- d. floors (*Guide, p 137*)
- e. drainage (*Guide, p 138*)
- f. walls and ceilings (*Guide, p 138*)
- g. heating ventilation and air conditioning (*Guide, p 139*)
- h. power and lighting (*Guide, p 141*)
- i. noise control (*Guide, p 142*)
- j. vibration control (*Guide, p 142*)
- k. environmental monitoring (*Guide, p 143*)

3. Room/Cage:

- a. temperature and humidity (*Guide, p 43*)
- b. ventilation and air quality (*Guide, p 45*)
- c. illumination (*Guide, p 47*)
- d. noise and vibration (*Guide, p 49*)

4. Primary Enclosure:

- a. space meets physiologic, behavioral, and social needs (*Guide, p 51, 55-63*)
- b. secure environment provided (*Guide, p 51*)
- c. durable, nontoxic materials in good repair and no risk of injury (*Guide, p 51*)
- 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*)
- h. socially housed animals can escape or hide to avoid aggression (*Guide, p 55*)
- i. cage height provides adequate clearance (*Guide, p 56*)
- 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 space exceptions approved by IACUC and based on performance indices (*Guide, p 56*)

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5. Environmental Enrichment, Behavioral and Social Management:

- a. structures and resources promote species typical behavior (*Guide, p 52-54*)
- 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, p 53, 58, 60, 63*)
- d. animal care personnel receive training to identify abnormal animal behaviors (*Guide, p 53*)
- e. stability of pairs or groups is monitored for incompatibility (*Guide, p 64*)
- f. single housing is justified for social species (*Guide, p 64*)
- 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. weather protection and opportunity for retreat (*Guide, p 54*) **[must]**
- b. appropriate size (*Guide, p 54*)
- 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. 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. feeding schedule and procedures including caloric intake management (*Guide, p 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. vermin control (*Guide, p 66*)
- g. rotation of stocks (*Guide, p 66*)

9. Water:

- a. ad libitum unless justified (*Guide, p 67-68*)
- b. QC procedures (*Guide, p 67-68*)

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10. Bedding and Nesting Materials:

- a. species appropriate (*Guide, p 68-69*)
- b. keeps animals dry (*Guide, p 68-69*)
- c. QC procedures (*Guide, p 68-69*)
- d. minimizes scientific variables (*Guide, p 68-69*)

11. Sanitation:

- a. frequency of bedding/substrate change (*Guide, p 70*)
- b. cleaning and disinfection of microenvironment (*Guide, p 70-71*)
- c. cleaning and disinfection of macroenvironment (*Guide, p 72*)
- d. assessing effectiveness (*Guide, p 73*)

12. Waste Disposal:

- a. procedures for collection (*Guide, p 73-74*)
- b. procedures for storage and disposal (*Guide, p 73-74*)
- c. hazardous wastes are rendered safe before removal from facility (*Guide, p 73-74*) [must]
- d. animal carcasses (*Guide, p 73-74*)

13. Pest Control:

- a. regularly scheduled (*Guide, p 74*)
- b. documented program including control of rodent pests and insecticide use (*Guide, p 74*)

14. Emergency, Weekend, and Holiday Animal Care:

- a. care provided by qualified personnel every day (*Guide, p 74*)
- b. provision for accessible contact information (*Guide, p 74*)
- c. monitoring of backup systems (*Guide, p 143*)
- d. veterinary care available after hours, weekends, and holidays (*Guide, p 74, 114*) [must]
- e. a disaster plan that takes into account both personnel and animals (*Guide, p 75*)

15. Identification:

- a. cage/rack cards contain required information (*Guide, p 75*)
- b. genotype information included and standardized nomenclature used when applicable (*Guide, p 75*)

16. Recordkeeping:

- a. clinical records accessible and contain appropriate information (*Guide, p 75-76*)
- b. records are provided when animals are transferred between institutions (*Guide, p 75*)

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17. Breeding Genetics and Nomenclature:

- 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*)

18. Storage:

- a. adequate space for equipment, supplies, food, bedding and refuse (*Guide, p 141*)
- 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*)
- 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*)

19. Personnel:

- a. adequate space for locker rooms, administration and training (*Guide, p 135*)

Aseptic Surgery

1. General Considerations:

- a. location minimizes traffic/contamination (*Guide, p 144*)
- b. functional components (surgical support, animal preparation, surgeon scrub, operating room, postoperative recovery) are designed and separated (physically or otherwise) (*Guide, p 144*)
- c. appropriate drug storage, control, expiration date monitoring (*Guide, p 115, 122*)
- d. safe sharps disposal system (*Guide, p 74*)
- e. adequate records of anesthesia and perioperative care (*Guide, p 122*)
- f. aseptic procedures in use for all survival surgery (*Guide, p 118-119*)

2. Operating Room:

- a. effective contamination control procedures (*Guide, p 144*)
- b. effective cleaning procedures/dedicated tools (*Guide, p 145*)
- c. interior surfaces smooth and impervious to moisture (*Guide, p 145*)
- d. HVAC system meets Guide requirements (*Guide, p 145*)
- e. lighting safe and appropriate (*Guide, p 145*)
- f. outlets safe and appropriate (*Guide, p 145*)
- g. scavenging of anesthetic gases implemented (*Guide, p 145*)

3. Surgical Support:

- a. facility for washing, sterilizing, storing instruments and supplies (*Guide, p 145*)
- b. autoclave monitoring procedures are implemented (*Guide, p 119, 145*)
- c. storage of autoclaved materials maintains sterility (*Guide, p 145*)

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- d. cold sterilization procedures are appropriate *(Guide, p 119)*
4. **Animal Preparation:** contains large sink to facilitate cleaning of animal and operative site *(Guide, p 145)*
5. **Surgeon Scrub:** outside operating room, non-hand-operated sink *(Guide, p 145)*
6. **Postoperative Recovery:** allows adequate observation, easily cleaned, supports physiologic functions, minimizes risk of injury *(Guide, p 145)*
7. **Dressing Area:** place for personnel to change *(Guide, p 145)*

Procedure Areas, Non-survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Containment, Behavioral Studies

1. General Considerations:

- a. labs used to house animals only when scientifically required and limited to minimum period necessary *(Guide, p 134)*
- b. drug storage, control, and expiration dates *(Guide, p 115, 122)*
- c. sharps disposal *(Guide, p 74)*
- d. anesthetic monitoring *(Guide, p 120)*
- e. scavenging of anesthetic gases *(Guide, p 21)*
- f. safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders) are in place *(Guide, p 19)*
- g. carcass disposal *(Guide, p 73-74)*

2. Additional Concerns for Survival Surgery: (rodent and minor procedures only)

- a. rodent survival surgery clean and uncluttered, not used for anything else during surgery *(Guide, p 144)*
- b. records of peri-operative care *(Guide, p 120)*
- c. aseptic procedures *(Guide, p 118-119)*
- d. autoclave monitoring procedures *(Guide, p 119, 145)*
- e. storage of autoclaved materials *(Guide, p 145)*
- f. cold sterilization procedures are appropriate *(Guide, p 119)*

3. Imaging/Whole Body Irradiation:

- a. location of resource limits contamination risk *(Guide, p 147)*
- b. appropriate transportation methods are in place *(Guide, p 147)*
- c. gas anesthesia provision, scavenging and monitoring are appropriate *(Guide, p 147)*
- d. appropriate sensors and ventilation are provided for cryogen gases *(Guide, p 147)* **[must]**
- e. imaging console is located away from radiation source *(Guide, p 147)*

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4. Hazardous Agent Containment:

- a. facility adheres to National Regulations and local rules (*Guide, p 148*) [must]

5. Behavioral Studies:

- a. facility minimizes airborne transmission of noise and ground-borne transmission of vibration (*Guide, p 149*)
- b. floor coverings reduce sound transmission (*Guide, p 149*)
- c. testing equipment allows for surface disinfection (*Guide, p 150*)
- d. components that cannot be cleaned are not in ready contact with animals and kept covered when not in use (*Guide, p 150*)
- e. housing areas are contiguous with testing areas when appropriate (*Guide, p 150*)