



SANITATION VALIDATION POLICY

Purpose

The basic concept of sanitation (i.e. to provide conditions conducive to animal health and welfare) is the same for terrestrial and aquatic systems although the specifics may differ. Federal regulations require routine sanitation of surfaces that animals directly contact. Furthermore, an oversight program is recommended to monitor the effectiveness of sanitation practices. Performance measures such as visual inspection of equipment and assessment of animal health must be evaluated on a continual basis in all settings.

Definitions

1. **Primary enclosures** refers to all items that come into direct contact with the animal during housing including but not limited to the cage, wire feeder/food bowl, enrichment devices, and water bottle/bowl.
2. **Surfaces and Equipment with Direct Animal Contact** refers to all surfaces the animal directly contacts when outside of the primary enclosure including, but not limited to behavioral testing equipment, restraint devices, and imaging equipment.
3. **Disinfectants** are products used to reduce or eliminate microorganisms on non-living surfaces. Sporocidal disinfectants, such as Spor-Klenz, Wexcide, 10% Bleach, Opti-Cide and Roccal-D, should be used for all surfaces and equipment with Direct Animal Contact described above, following manufacturer's instructions. Please note: Alcohol is neither a sterilant nor a high-level (sporicidal) disinfectant¹.
4. **Sanitation** is the maintenance of environmental conditions conducive to health and well-being.
5. **Manual sanitation** is the use of hand-washing to remove microorganisms and debris (organic matter) which requires special attention to detail.
6. **Automated sanitation** refers to the use of mechanical systems such as dishwashers, rack washers, and tunnel washers that are designed to remove microorganisms and debris (organic matter).
7. **Validation** refers to use of microbiologic culture (i.e. RODAC plates or biologic swabs) or the use of organic material detection systems (e.g. ATP bioluminescence) in addition to temperature monitoring to ensure effective sanitation practices

Requirements

1. Primary Enclosures
 - a. Terrestrial Species Intensive Housing
 - Automated systems must be validated at least quarterly to ensure adequate performance of the equipment
 - Manual sanitation processes must be validated on a **semi-annual basis** for areas continuously housing animals
 1. Validation frequency for areas periodically housing animals (e.g. satellite) must be defined in the SOP for that location as it may be appropriate to validate less frequently based on how often animals will be housed in that space
 - The disinfectant used, contact time and dilution must be included in the SOP/SMP for the housing area
 - Results must be maintained and available during semi-annual housing inspections
 - b. Aquatic Species
 - In aquatic settings, tank (cage) changing and disinfection are conducted at frequencies using methods that often differ from terrestrial systems. As noted in The Guide¹, evaluation of water quality is most important and regular changing of tanks is not integral to maintaining adequate hygiene in typical aquatic systems.

- The frequency of cleaning and disinfection should be determined by water quality, allowing for adequate viewing of the animals, and animal health monitoring.
 - Cage/Tank disinfection must occur at the end of study and processes should be validated when automated systems are used. Validation should happen on a semi-annual basis to ensure adequate performance of equipment.
- c. Agricultural/Farm Housing
- Husbandry should be consistent with The AG Guide² with cleanliness as the overall goal.
 - Although not required, validation of sanitation methods is encouraged especially in light of disease outbreak
2. Surfaces and Equipment with Direct Animal Contact
- a. Solid/Non-Porous/Non-Permeable (i.e. stainless steel, hard plastic) should be sanitized using sporicidal disinfectants at a frequency to maintain sanitary conditions and minimize disease spread.
 - b. Porous materials cannot be sanitized and therefore must be cleaned and replaced regularly to help ensure a clean environment for the animals
3. Validation thresholds for “passing” may vary for different facilities and/or species and should be developed in consultation with your clinical veterinarian, examples for biological methods include <15 colony forming units for RODAC® plates and <30 RLU (Relative Light Units) for biological swabs. Surfaces that do not pass based on biological test thresholds, must be re-sanitized until a passing level is achieved.

Please note: Testing is available on a fee for service basis from various commercial and OSU labs.
Contact OR-ulargastaff@osu.edu

Applicable Regulations/Guidance

1. [The Guide for the Care and Use of Laboratory Animals, 8th edition](#)
2. [The Ag Guide](#)
3. USDA Animal Welfare Regulations
4. Howard HL, Haywood JR, Laber K. 2001. Alcohol as a disinfectant. AAALAC International Connection Winter/Spring 2001:16.
5. Rutala WA, Weber DJ., Healthcare Infection Control Practices Advisory Committee 2008. Guideline for disinfection and sterilization in healthcare facilities, 2008. Atlanta (GA): Centers for Disease Control.

History of Revisions

048-00 - new policy approved 5/17/13

048-01 - revised to add Roccal-D to list of approved products 10/28/13

048-02 - revised to clarify that sanitization for primary housing must be validated semiannually regardless of the method used, and that the pre-validated products apply to surfaces and equipment only. 10% bleach was added to the group of Sporicidal disinfectants. Visual Inspections and Performance Measures were added as methods of verification. 12/20/13

048-03 – revised to add the following sentence to the purpose section: Farms or barns where agricultural species are housed are exempt from this policy but must be maintained in sanitary conditions. 12/16/16

048-04 – Changed title; added automated sanitation equipment; added validation frequency statement for areas periodically housing animals. 06/16/17

048-05 – Revised to add aquatics exemption. 02/15/19

048-06 – Revised to clarify guidelines for agricultural and aquatic areas