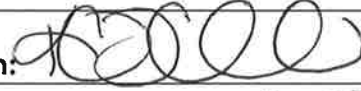





OFFICE OF LABORATORY ANIMAL CARE

STANDARD OPERATING PROCEDURE

SOP Number:	606	General Facility Sanitation	Revision #:	3
Date Effective:	10/1/19		Supersedes:	02

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PURPOSE

The purpose of this SOP is to define the procedures for sanitizing various animal areas throughout the UC vivarium.

SCOPE

This SOP applies to all common areas, OLAC areas, shared spaces (e.g., feed/bedding storage, rodent shared surgery, necropsy). PI-maintained areas are not included in this SOP.

RESPONSIBILITY

These duties are the responsibility of all OLAC employees performing sanitation within the vivaria.

DEFINITIONS/ACRONYMS

- OLAC: Office of Laboratory Animal Care
- PI: Principal Investigator
- PPE: Personal Protective Equipment
- IVC: Individually Ventilated Cages
- Daily: Procedures performed at least once a day during normal working hours excluding holiday and weekends
- Weekly: Procedures performed at least once a week during non-holiday weekday working hours
- Monthly: Procedures performed at least once within the current month
- Disinfectant: A departmentally approved, commercially available antimicrobial disinfectant (see Appendix A)
- Support Areas: Dry feed storage, bedding storage, receiving room, general storage, and necropsy

PROCEDURE:

1. All corridors in OLAC managed facilities are monitored and maintained by OLAC staff.
2. Corridors, suites, ante-rooms, and procedure areas adjacent to OLAC managed facilities, are monitored by OLAC for cleanliness but may be maintained by groups such as Facilities Services, Research/Lab staff, or OLAC staff. OLAC staff may notify non-OLAC groups that maintain these areas if attention is deemed necessary.
3. Follow manufacturer's instructions regarding shelf life. Verify that the disinfectant is "in date" prior to use (not expired).
4. Label all disinfectants with name of chemical, concentration, and date of expiration. Assure proper labeling and function of spray bottles or containers and replace if empty or expired.
5. Sign off on all tasks completed on respective checklists.
6. Animal Housing Room, Corridor, and Support Areas:
 - a. Supplies: Check all supplies (e.g., caging supplies, disinfectant, paper towels, gloves, brooms, trash can liners). Restock or refill daily if necessary.
 - b. Cage Change Stations:
 - i. **Daily:** Clean and disinfect cage change stations after use
 - ii. **Weekly:**
 1. Remove work surfaces and vacuum out the inside of the change station to remove debris.
 2. Sanitize horizontal and vertical surfaces.
 - iii. **Monthly:** Check and clean pre-filters by removing the work surface and vacuuming the filters.
 - iv. **Quarterly:** Pre-filters may be changed more frequently, if deemed necessary, by the Facility Supervisor or designee. The date the pre-filter is changed is recorded on a visible side of the pre-filter.
 - c. Floors:
 - i. **Daily:** Inspect floors and sweep as necessary to keep floors free of debris.
 - ii. **Weekly:** Sanitize floor with approved disinfectant. The area supervisor or designee may determine that some floors need to be sanitized more often than once weekly.
 - iii. **Monthly:** If present, flush drains with disinfectant and follow with liberal amount of water.
 - d. Horizontal and Vertical Surfaces:
 - i. **Monthly:** Sanitize horizontal and vertical surfaces (e.g. floors, walls, countertops, shelves, etc.).
 - e. IVC Racks:
 - i. **Monthly:**
 1. Pre-Filters: Change pre-filters of Techniplast blower.
 2. Sanitize horizontal and vertical surfaces.
 - ii. **Quarterly:** Change pre-filters of Lab Products, Allentown, & INnovive blower. Pre-filters may be changed more frequently, if deemed necessary, by the Facility Supervisor or designee. The date the pre-filter is changed is recorded on a visible side of the pre-filter.
 - v. **Biannually:**
 1. Change out IVC racks once every **6 months or more frequently as deemed necessary.**
 2. Racks are sanitized by processing through the rack washer.
 3. Record change date on designated checklist and/or on the rack.

- e. Feed Bins and Scoops: Sanitize feed bins and scoops monthly by wiping down with approved disinfectant or processing through washer.
 - f. Trash and Trash Bins:
 - i. **Daily:** Check trash bins and empty as needed (if strong odors are present or at a minimum if trash bin is at $\frac{3}{4}$ full).
 - ii. **Monthly:** Sanitize trash bins
 - g. Sharps containers: If present, check weekly and replace if $\frac{3}{4}$ full (to fill line).
 - h. Necropsy: Sanitize euthanasia chamber and or lids.
 - i. Eye Wash Station:
 - i. If present, check eye wash station monthly as follows or as recommended by manufacturer.
 - ii. Flow must be good and near uniform with a height of six inches or greater.
 - iii. Flows should cross near their apex and at the center of the eyewash mount.
 - iv. Run eye wash for 1 to 3 minutes to flush any debris out of the water line.
 - v. Record date and initials of person testing eye wash station on eye wash station log.
 - j. Foot baths:
 - i. Replace approved disinfectant in foot bath weekly
 - ii. Remove fabric inserts from foot bath and rinse weekly
 - iii. Top off approved disinfectant if foot bath is empty or low
7. Veterinary Surgical/Procedure Areas:
- a. Routine cleaning is performed as outlined in section 6 above with the following additions:
 - i. Routine cleaning is performed at least weekly or more often if needed
 - ii. Laundry: If present, launder scrubs and towels.
 - iii. Counters, sinks, supply areas, floors, and other surfaces (including surgical lamps): Clean with approved disinfectant.
 - iv. Windows: Clean windows with window cleaner, if present.
 - v. Amphibian Ringer's Solution: If applicable, make as needed. Refer to SOP 203-Frog Life Support System Maintenance: Appendix B for the recipe.
 - b. Monthly:
 - i. Expiration dates:
 - 1. Check expiration dates of surgical supplies, disinfectants, and pharmaceuticals at the end of each month.
 - 2. Remove pharmaceuticals, supplies, and disinfectants from shelf that expire at the end of the following month.
 - 3. For supplies that can be re-sterilized, prepare for re-sterilization. For supplies, pharmaceuticals and disinfectants that cannot be re-sterilized, place in expired substances cabinet and re-order as necessary.
 - ii. Treatment Tote:
 - 1. If present, check all supplies and restock or refill, if necessary.
 - 2. Check expiration dates of supplies in treatment tote at the end of each month.
 - 3. Remove pharmaceuticals, supplies, and disinfectants from shelf that expire at the end of the following month.
 - 4. For supplies that can be re-sterilized, prepare for re-sterilization. For supplies, pharmaceuticals and disinfectants that cannot be re-sterilized, place in expired substances cabinet and re-order as necessary.
 - b. Pre-Surgical Preparation/Sanitation (NAF 107):
 - i. Pre-procedure room preparation is performed at least 4 hours prior to beginning of scheduled surgical procedure.

- ii. Counters, sinks, and other surfaces (including surgical lamps): Clean with approved disinfectant.
- iii. Floors: Dry mop to remove dust and debris, if needed.
- iv. Trash can liners: Place in all trash receptacles.
- v. Mobile equipment carts and monitor stand: Clean with approved disinfectant and place in operating room.
- c. Post-Surgical (End of Day) Cleaning/Sanitation (NAF 107):
 - i. Laundry: Launder all reusable drapes, wraps, and patient warming items.
 - ii. Trash: Empty trash from kick buckets and all trash receptacles. If an ABSL-2 procedure was performed, all trash must be discarded in a red biohazard bag.
 - iii. Surgical instruments: Remove instruments to NAF 111 (Pharmacy) and wash in detergent. If an ABSL-2 procedure was performed, face shield and gloves must be worn while washing surgical instruments.
 - iv. Anesthesia machine patient tubing: Remove anesthesia tubing from machines and soak in approved disinfectant for at least 10 minutes. Rinse thoroughly with water and hang to dry.
 - v. Suction fluid collection bottle: Mix contents with bleach (1:10 dilution) and allow 10 minutes of contact time before disposal down sink. Flush sink with water after disposal down sink. Be careful to not mix bleach and quaternary ammonium compounds.
 - vi. Patient Monitoring Leads: Clean with approved disinfectant. Replace on monitor stand once dry.
 - vii. Other surgical equipment (see list below): Clean with approved disinfectant and allow to sit for 10 minutes before cleaning with a clean cloth.
 - 1. Long bench top
 - 2. Surgical instrument table
 - 3. Mayo stand
 - 4. Anesthesia machine
 - 5. Ventilator and stand
 - 6. IV pole(s) and attached equipment
 - 7. Chairs and step stools
 - 8. Overhead lamps
 - 9. Operating table and positioning devices
 - 10. Kick buckets
 - 11. Portable equipment (e.g., patient warming and suction devices)
 - 12. Mobile equipment cart
 - viii. Floors:
 - 1. Spot clean to remove organic materials with approved disinfectant.
 - 2. Remove all ammonia products prior to dry mopping.
 - 3. Dry mop or sweep floors to remove all debris.
 - 4. Wet mop with clean mop head and approved disinfectant (household bleach 1:10 ratio).

8. SanitruX/Carts for Dirty Cages or Supplies:

Monthly: Sanitize all racks/carts used for supply drop off.

9. Pest/Vermin: Refer to SOP 608-Pest and Vermin Control.

10. Floor scrubber use and maintenance:

- a. Use floor scrubber with water only. Chemicals and detergents will corrode the machine.
- b. **Daily:**
 - i. Drain & clean the dirty water recovery tank after use
 - ii. Inspect and clean the debris catch cage after use
 - iii. Clean the ball float system after use

Last Updated: 9/23/19

- iv. Remove and inspect the squeegee and blades
- v. Remove and inspect the brushes/pads, then rinse and allow to dry
- vi. Keep the recovery tank lid open to let air dry (To prevent odor-causing bacteria)
- vii. Charge the battery
- viii. Clean the exterior

REFERENCE DOCUMENTS

- SOP 608-Pest and Vermin Control
- SOP 203-Frog Life Support System Maintenance

REVISION HISTORY			
REVISION NUMBER	AUTHOR(S)	EFFECTIVE DATE	REVISION(S)
1	Kayla Lynch	3/21/2019	6ei. added "Techniplast blower"
			6eii. Added quarterly section
2	Amanda Larson	3/21/2019	Removed statement in Scope that excluded USDA (non-rodent) common areas
			6.e. added "approved disinfectant "
			Added column "Approved Area For Use" to Appendix A
3	Amanda Larson	8/26/2019	Added section 10., 6.j.

Appendix A:

Shelf Life Recommendations for Commonly Utilized Disinfectants

Solution	Full-strength Expiration Date	Dilution Expiration Date	Approved Area for Use
Ethanol/Isopropanol	No expiration date unless indicated on stock bottle	After dilution, shelf life is 180 days *Full strength evaporates faster. Use deionized water for dilutions	Control of infectious disease outbreaks
Chlorhexidine solution	Expiration date of stock bottle; must be labeled on all aliquots	After dilution with sterile diluent, shelf life is 24 hrs	Bat housing, bat procedure spaces, veterinary use
Chlorhexidine scrub	Expiration date of stock bottle; must be labeled on all aliquots	If diluted, discard after use	Veterinary use
Benzalkonium Chloride (Benz-All)	No expiration date unless indicated on stock bottle	Once aliquoted, discard after 14 days	Veterinary use
Povidone-Iodine solution	Expiration date of stock bottle; must be labeled on all aliquots	If diluted, discard after use	Veterinary use
Povidone-Iodine scrub	Expiration date of stock bottle; must be labeled on all aliquots	If diluted, discard after use	Veterinary use, bite/scratch kits
Bleach (Sodium Hypochlorite)	No expiration date unless indicated on stock bottle	If diluted, discard within 24 hours	Drains, laundry, control of infectious disease outbreaks
Coverage Plus NPD	Expiration date of stock bottle; must be labeled on all aliquots	Once diluted, discard within 30 days; if stock bottle expires prior to 30 days after dilution made, label with expiration date of stock bottle	All animal housing & animal procedure spaces (excluding ABSL-3, aquatics)
Rescue (Hydrogen Peroxide)	Expiration date of stock bottle; 2 years	Not applicable RTU (Ready to Use) solution/wipes only	All animal housing & animal procedure spaces (excluding aquatics)

Last Updated: 9/23/19

Sani-Plex	Expiration date of stock bottle	Prepare fresh daily or when use solution becomes visibly dirty	All animal housing and animal procedure spaces floors/walls (excluding ABSL-3, bats, aquatics)
Virkon Aquatic	Expiration date on tub	7 days after dilution with water	Aquatic animal housing and procedure spaces
MB-10	Expiration date on box	7 days after dilution with water	LSA-6 High barrier animal housing and animal procedure spaces

Appendix B:

Dilutions for Commonly Utilized Cleaning Solutions

Solution	Desired Concentration	Dilution Instructions
Bleach (Sodium Hypochlorite)	1:10	One part bleach and nine parts water Example: 12.5 oz. of bleach with 1 gallon of water
Coverage Plus NPD	1:256	Obtain from dispenser
Ethanol or Isopropanol (isopropyl alcohol)	70% (70 mg/ml)	Add 3 parts water to 7 parts 95% ethanol or isopropanol (ex. 3 oz. water to 7 oz. ethanol or isopropanol)
Sani-Plex	1:128	Add 1 oz. of Sani-Plex to 1 gallon of water
Virkon Aquatic	1:100	Add one scoop (~1.3 oz.) of Virkon Aquatic Powder to 1 gallon (4 liters) of water to make 1% disinfectant solution
MB-10	200ppm	Add 2- 1.5gram tablets to spray bottle (32oz)

Appendix C: Primary Cleaning Responsibilities

NAF		
Room #	Type of Space	Responsibility
102	Support	AT
103	Clinical	AHT
105	Clinical	AHT
106	Support	AHT
107	Clinical	AHT
109	Clinical	AHT
111	Clinical	AHT
113	Clinical	AHT
113A	Clinical	AHT
113B	Clinical	AHT
114	Support	AT
115	Procedural (Shared Surgery)	AT
114	Support	AT
119	Support	AT
177	Procedural	AT
178	Procedural	AT
195	Procedural (Necropsy)	AT
197	Support (Diet Storage)	AT
199	Support	AT
202	Support	AT
205A	Support	AT
205F	Support	AT

Last Updated: 9/23/19

Appendix C

Primary Cleaning Responsibilities

LKS		
Room #	Type of Space	Responsibility
B136	Procedural (Necropsy)	AT
B150	Procedural	AT
B156	Support (Diet Storage)	AT
B162	Storage	AT
B176	Clinical	AHT

LSA-6		
Room #	Type of Space	Responsibility
640	Procedure (Shared Surgery)	AT
639 & 639A	Clinical	AHT
695 & 695A	Procedural	AT
694	Procedural	AT
Breakroom	Procedural	AT
656	Support	AT
660	Support (Diet Storage)	AT
647A-C	Support	AT
641A & B	Procedural	AT
641 C, D & E	Support	AT
638	Support	AT

Appendix C

Primary Cleaning Responsibilities

LSA-B		
Room #	Type of Space	Responsibility
1F	Support	AT
36	Procedural	AT
39	Support	AT
40	Support (Diet Storage)	AT
41	Support	AT
48	Support	AT

MINOR HALL		
Room #	Type of Space	Responsibility
599C	Procedure (Necropsy)	AT
599H	Support	AT

VLSB		
Room #	Type of Space	Responsibility
5189A	Support (Diet Storage)	AT
5189C	Support	AT
5189D	Support	AT