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Distribution	RAR/ACUC	

E – 12A Microbiological Monitoring Program for Hand Sanitation Procedures and Animal Drinking Water

Purpose: This document describes the microbiological monitoring program ensure proper sanitization of equipment and quality of animal drinking water.¹

Coverage: This document applies to RAR- and CRB-managed facilities, satellite facilities, and other areas that would use live animals for experimentation (e.g., imaging and behavioral core). This covers the testing program for animal drinking water sources and all hand-sanitized equipment, especially those that come in direct contact with the animals, including but not limited to behavioral and imaging equipment, cages, feeders, and water bottles.

Materials:

- Organic Material Detection Systems
 - Neogen’s **AccuPoint Advanced** ATP hygiene monitoring system
 - Hygienia **EnSURE Touch** ATP monitoring system
- Single-use **sampling devices** for either the AccuPoint or EnSURE Touch systems
- PPE appropriate for facility

Reference Documents:

- E—12B Operation of ATP Luminometers

Responsibility:

1. **Laboratory personnel from satellite facilities AND cage wash personnel in central facilities**
 - a. Write SOPs for hand sanitization of equipment.
 - b. Notifies RAR Satellite Housing Coordinator, RAR Microbiological Monitoring Testing Coordinator, and/or their designees of any procedural and/or equipment change.
 - c. Conduct visual examination of hand-sanitized equipment, ensuring they are free of gross debris.
 - d. Provides samples of sanitized equipment to the Coordinators for ATP testing, when requested.
2. **RAR Satellite Housing Coordinator, RAR Microbiological Monitoring Testing Coordinator, and/or designees**
 - a. Reviews sanitation SOPs.

- b. Conducts visual examination of hand-sanitized equipment during routine visits.
 - c. Schedules and performs ATP-testing of hand-sanitized equipment to validate practices:
 - i. Routinely – at least annually;
 - ii. When procedures and SOPs are changed;
 - iii. When equipment is new/repaired.
3. **Director of Laboratory Animal Management**
- a. Reviews sanitation SOPs for central facilities.
 - b. Oversees the program and ensures implementation of this SOP.
4. **RAR Satellite Veterinarian**
- a. Reviews sanitation SOPs for satellite facilities.
 - b. Oversees the program and ensures implementation of this SOP.

Frequency of testing: The table below summarizes various items that would be covered under this SOP.

Category	ATP testing (Yes/No, and frequency, if applicable)
Category 1: inactive satellite facility	No
Category 2: RAR processes cages via mechanical washer	No
Category 3: Disposable cages	Yes or No (some labs re-use disposable cages)
Category 4: surfaces and equipment, other than animal housing, that are used for animal experimentation and that animals come in contact with (e.g., behavioral equipment, imaging equipment); water sources for each housing location	Yes; every 6 months
Category 5: animal housing items processed by hand (hand-sanitized items; includes hand sanitized cages/runs and cage components like water bottles and feeders)	Yes, every quarter

Procedures:

1. **Category 4 items: Tested every 6 months.**
 - a. Test items:
 - i. **Drinking water source:**
 1. Water samples from each housing location are tested twice yearly. In housing facilities where water is provisioned in multiple ways (ex. lixits, bottles, bowls), a representative sample will be collected from each source (ex. 1 lixit, the designated sink/hose for filling bowls, etc) and tested for ATP bioluminescence.

- ii. **Surfaces/equipment:** Select 3 representative surfaces which animals contact directly (ex. scales, procedure/OR tables, imaging equipment, behavioral equipment, etc.).
 - b. Ensure sampling/testing is conducted immediately following sanitation of each item/surface.
 - c. For water testing, ensure water samplers (not surface samplers) are utilized.
 - d. Conduct sampling and testing per E—12B Operation of ATP Luminometers.
- 2. **Category 5 items: Tested quarterly.**
 - a. Tested items:
 - i. **Hand sanitized cages/runs:** select 3 representative primary enclosures (ex. pig run, dog run, NHP enclosure/run, etc) per housing location.
 - ii. **Hand sanitized cage components:** select 3 representative items (ex. enrichment which must be hand sanitized, lixits that are not mechanically washed, etc.) per housing location.
 - b. For surface testing, ensure sampling/testing is conducted immediately following sanitation of each item/surface.
 - c. Conduct sampling and testing per E—12B Operation of ATP Luminometers.
- 3. **Test Failure Follow-Up and/or Adjunctive Testing:**
 - a. The RAR Satellite Housing Coordinator or RAR Microbiological Monitoring Testing Coordinator will notify the overseeing veterinarian regarding failed tests.
 - b. The overseeing veterinarian, will investigate the cause of the failed test, which includes communication with the facility supervisor and Director of Laboratory Animal Management, investigating root cause of failed test, correcting sanitation practices if needed, and scheduling of retesting.
 - c. Water testing by a third-party affiliate may be conducted regularly in certain areas or in response to unsatisfactory semi-annual ATP testing. The veterinarian will determine if additional water testing is required. This testing may include: total coliform counts (TCC), colony counts, heterotrophic plate counts, aerobic culture, and other assessments of drinking water quality such as turbidity, chlorine, levels, pH, etc.

Other references:

1. Guide for the Care and Use of Laboratory Animals, 8th Edition, page 73
2. AccuPoint Advanced User’s Guide – page 2-3
3. Quip Laboratories’ Rapid ATP Hygiene Monitoring Guide – page 3
4. AccuPoint Advanced User’s Guide – page 4
5. Instruction manuals for Hygienia EnSURE Touch, AquaSnap devices, and UltraSnap devices

I acknowledge that I have read and understand the JHU Animal Care and Use Program document “**Microbiological Monitoring Program for Hand Sanitation Procedures and Animal**

Drinking Water”, and I will follow this procedure. I agree to bring any deviations in this procedure to the attention of my supervisor/GPS Working Group.

Name (Print)

Date

Signature