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## Purpose

This document describes a standardized procedure for guillotine maintenance. This SOP applies to all animal care staff and research personnel who use guillotines in animal research.

## Procedures

Guillotines must be maintained in good working order and serviced on a regular basis to ensure sharpness of the blades and smoothness of action. The user is responsible for ensuring that the equipment is always clean and in good working condition prior to any use.

### Cleaning

At the end of each day or session of use, the guillotine must be thoroughly rinsed, disinfected, and dried. A final rinse with 70% ethanol will ensure evaporation and reduce the need to hand-dry the equipment.

### Testing

To determine if a guillotine requires service, the smoothness of the cutting motion and cleanness of the cut may be confirmed by cutting a piece of ¼" OD plastic tubing.

- If the tubing is cut cleanly, the motion is smooth, and minimal force is required, the guillotine is acceptable to use.
- If the tubing is not cut cleanly, the motion is not smooth, or more than minimal force is required, the guillotine must be marked "Do Not Use" and serviced before future use.
- See [U.S. Plastic](#) item #58019 for an example of appropriate tubing.

### Sharpening

Frequency of sharpening is dependent on species euthanized and volume of use. For regular use, testing must be performed at least quarterly and sharpening must be performed at least annually. Blade sharpening can be done by any reputable blade sharpening company, such as those that offer medical instrument sharpening. URI has a master contractor agreement with [Vital Surgical Technologies](#), [customerservice@vitalst.com](mailto:customerservice@vitalst.com), 877-437-7095.

### Lubrication

For regular use, guillotines must be lubricated at least monthly with a clipper blade lubricant or other silicone-based spray to keep the motion smooth.

### Out of Use Equipment

If a guillotine will be out of use for an extended time, it may be marked "Do Not Use" and be exempt from regular maintenance activities. When it is brought back into use, the guillotine must be cleaned, tested, sharpened, and lubricated as described above before use.

### Maintenance Logs and Inspections

Guillotine users must keep a log of guillotine maintenance activities, including testing, sharpening, and lubrication. An example log template is included below.

Guillotines and maintenance logs will be inspected on a semiannual basis by the IACUC. In addition, equipment and maintenance logs may also be inspected by other regulatory and accrediting bodies, such as AAALAC International. Equipment and logs must be readily available for all inspections.

## Log Template

**Guillotine ID:**

**Person Responsible:**

Date	Maintenance Activity (testing/lubrication/sharpening)	Personnel Conducting Maintenance

## References

American Veterinary Medical Association (AVMA). (2020). *Guidelines for the Euthanasia of Animals: 2020 Edition*.  
<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>

National Research Council. (2011). *Guide for the Care and Use of Laboratory Animals: Eighth Edition*.  
<https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf>

Washington State University. (2021). *Standard Operating Procedures for Guillotine Maintenance and Use*.  
<https://iacuc.wsu.edu/documents/2021/10/sop-15-guillotine-maintenance-and-use.pdf>