This document provides operation and maintenance information to researchers who perform decapitation in research, teaching, or other purposes at the University of Texas at Austin. It is organized into six sections:

Section A – Background
Section B – Operation and Maintenance
Section C – Training
Section D – Periodic Maintenance
Section E – Documentation

Section A – Background

As per the AVMA Guidelines on Euthanasia, equipment used to perform decapitation must be maintained in good working order and serviced on a regular basis to ensure sharpness of blades. The Guidelines also mentions that those responsible for the use of decapitation as a means for euthanasia must ensure that the personnel who perform decapitation have been properly trained to do so and are monitored for competence.

Section B – Operation and Maintenance

1) When in use, a properly maintained guillotine or other decapitation equipment (i.e. scissors) of appropriate size will decapitate the animal cleanly with minimal force.
   a) Before each use of a guillotine or other decapitation equipment, it should be checked for rust, lack of visible nicks or other damage to the cutting edges and cleanliness.
   b) The operator should ensure that the action is smooth with no perceptible binding or resistance.
   c) Since there are varying sizes of guillotines or scissors available, the equipment chosen should be appropriate for the size of the animal.
   d) The IACUC also recommends testing the equipment for sharpness on suitable materials before its use on live animals. A sharp blade will cut the test material (i.e. rubber band) cleanly with minimal force without dragging it between the blades or showing signs of sticking. The IACUC may choose to test decapitation equipment during post-approval monitoring or semiannual facility evaluation visits.

2) If the equipment is found to NOT be in good working conditions, alternative euthanasia procedures or guillotines must be used. The unsuitable equipment should be labeled “DO NOT USE” and scheduled for sharpening or alternatively disposed of.

3) Scissors used for euthanasia should be labeled for such purpose and/or stored in a designated area. Medical instrument-grade scissors should be used, and enterotomy scissors with a hooked blade are recommended.
Section C – Training

All personnel performing live animal decapitation must be properly trained and must not work independently until proficiency is verified by PI (or well-trained designee). This training must be documented on the Animal Research Procedure Training Log. It is required that all animals be sedated or anesthetized before decapitation unless precluded by scientific considerations and specifically justified to, and approved by, the IACUC.

Section D – Periodic Maintenance

As is the case with anesthesia vaporizers, the IACUC requires that high-use guillotines or other decapitation equipment used as the primary method of euthanasia be serviced or replaced no less than once per year or more frequently as needed to maintain proper function. Cleaning should occur after use in order to prevent damage and buildup of tissues. A qualified and experienced company or individual should be chosen for maintenance or blade resharpening. The Animal Resources Center can be contacted for the names of potential vendors familiar with the UT campus.

Section E – Documentation

A log must be maintained and stored in close proximity to the device which identifies the date of last sharpening or operation condition check. Operation condition checks should be performed to determine a need for service including assessment of functionality, sharpness, and overall condition. This only needs to be documented if annual sharpening is not needed due to infrequent usage.

A sample Decapitation Equipment Record Keeping log is provided on the Documents, Forms & Materials page of the IACUC website.

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<th>Approval Date</th>
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| 1/23/2023     | • Reformatted into a PDF, similar to other Guidelines.  
                • Revised training section: added statement about training verification and documentation.  
                • Minor clarifications added to Section B.3 and Section D. |