1.0 OBJECTIVE

The objective of this Standard Operating Procedure (SOP) is to describe a method of euthanasia for amphibians and reptiles to include caecilians (order Gymnophiona), frogs (order Anura), salamanders (order Caudata), snakes (suborder Serpentes), lizards (suborder Lacertilia), crocodilians (order Crocodilia), and turtles and tortoises (superorder Chelonia).

2.0 HEALTH AND SAFETY

• Attire appropriate to the task must be worn at all times.
• All Clemson University personnel must be enrolled in the Clemson University Medical Surveillance Program.

3.0 PERSONNEL/TRAINING/RESPONSIBILITIES

• All Clemson University personnel must have completed the IACUC on line training.
• Personnel familiar with the equipment and laboratory techniques and trained in this and referenced SOPs may perform this procedure.
• Prior to being assigned full responsibility for performing this procedure, personnel must have demonstrated proficiency in the use of the technique in a closely supervised environment.
• Documentation of training should be kept for each person performing the procedure.

4.0 REQUIRED MATERIALS

• Lidded Container large enough to hold animal without limiting normal posture.
• Source water
• MS-222
• Scissors, shears, or other similar instrument capable of quick and clean decapitation.
• Pithing rod, probe, needle or other similar instrument capable of brain matter destruction.

5.0 PROCEDURE
5.1 Water Bath
- A solution of 5 to 10 g/l of MS-222 prepared with enough source or culture water to completely cover amphibians.
- Immersion up to one hour may be required.
- Decapitation is required followed by pithing. Instruments used for decapitation will be sharp and must be replaced or sharpened periodically.

5.2 Injection
- Solution may be injected directly into the lymph Sacs of amphibians.
- Solution may be injected directly into the coelomic cavity of amphibians or reptiles.
- Decapitation is required followed by pithing. Instruments used for decapitation will be sharp and must be replaced or sharpened periodically.

5.3 Species Specific Reference
- This SOP is very general and species specific guidelines for euthanasia using MS-222 should be referenced if available.

6.0 QUALITY CONTROL CHECKS AND ACCEPTANCE CRITERIA

All procedures are subject to periodic review by the Attending Veterinarian(s) and the Institutional Animal Care and Use Committee.