STANDARD OPERATING PROCEDURES

DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

TITLE:	**Amsco® Model # 85 Inch Century Bulk Sterilizers**
SCOPE:	Research and Animal Care Personnel
RESPONSIBILITY:	Facility Manager, Animal Care and Cagewash Personnel,
PURPOSE:	To Outline the Proper Procedures for Use and Maintenance of an Amsco® Model # 85 Inch Century Bulk Sterilizers

I. PURPOSE

1. This procedure outlines the use and maintenance of the two (2) Amsco® Century Bulk autoclave units used to sterilize caging and equipment used for husbandry and is located in Room 214 of the Stabile Research Building (SRB).

II. RESPONSIBILITY

1. It is the responsibility of the Facility Manager in conjunction with the Surgical Core Manager to ensure that equipment is appropriately cleaned, maintained in good working order, and available for research personnel as requested.

2. It is the responsibility of the veterinary professional, administrative, and managerial staff to ensure that all research and technical staff using this equipment are adequately trained and experienced.

III. PROCEDURES

Note: Operator should be familiar with ***SOPs #1002 Monitoring Autoclave Sterilization, #1006 Sterilization, and #1007 Verify Indicators*** before operating this unit.

1. **Open chamber door** using touch screen display by pressing "**OPEN DOOR**" and confirm drain strainer is clean and in place.

2. **Verify steam, water supply valves are open and unit power is on**.

3. The power supply switch is located on the wall (to the left of the large bulk unit and to the right of the small bulk unit) and should be left in the **ON** position at all times for normal operation.

4. Supply valves to the sterilizer are located at the top of the autoclave. Both water and steam supply valves should be left in the **ON** position at all times for normal operation.

5. **Check for sufficient printer paper**, if red ink is showing, reload with new roll.

6. **Close chamber door** using touch screen display by pushing "**CLOSE DOOR**". Maintain pressure on display until the door is closed.

7. Choose main menu, and then **select appropriate cycle** option(s).

8. Daily air removal tests should be performed each day prior to running a load. If the autoclave has not been used in several days, press "**CYCLE SELECT**" select "**TEST CYCLES**" and select "**DART WARMUP"** cycle to bring chamber up to operating temperature in preparation for the DART/Bowie Dick test cycle.

9. After "**DART WARMUP**" cycle is completed or if the autoclave has been used in the last 24 hours, place appropriate test pack in chamber following SOP #1002 entitled ***Monitoring Autoclave Sterilization.*** Press "CYCLE SELECT" and select "BD-121".

10. After successful completion of DART/Bowie-Dick testing push appropriate button for sterilization**. Place items to be autoclaved into chamber**. Items should not be tightly stacked and should be arranged to facilitate the circulation and penetration of steam. Make sure shelves have been pushed back into original position after loading.

11. Press **"CYCLE SELECT"** and choose appropriate cycle**. "PREVAC"** for sterilizing caging, **"LIQUIDS"** for sterilizing liquids in bottles, or "**GRAVITY"** for sterilizing surgical instruments. The unit is now operating and will heat to the temperature and time selected developing a pressure appropriate to time/temperature exposures. If cycle parameters on screen are inappropriate, use "previous" button to make correct choice.

12. Examples of times and temperatures for the applications listed:
    a. Cage Sterilize- rodent caging with bedding- 15 minutes @ 121^0 C
    b. Cage Sanitize- rodent caging- 1 minute @ 121^0 C
    c. Liquid Sterilize- Water bottles- 45 minutes @ 121^0 C
    d. Liquid sanitize- Water bottles-1 minute @ 121^0 C
    e. Dart- Air removal test- 4 minutes @ 132^0C
    f. BD121- Bowie-Dick test- 4 minutes @ 121^0C

13. Control panel screen should be lit. The sterilizer enters the operating mode when the **"Start"** touchpad is pressed. Cycle operation can be started, monitored, and aborted using the touch-screen.

14. At the completion of a sterilization/sanitization cycle a tone will sound and the cycle summary and **"Cycle Completed"** message are printed indicating the load is finished.

15. **After the pressure in the chamber reaches zero the door can be opened** by pressing **"OPEN DOOR"** using touch screen display and the load carefully removed.

Caution: Autoclave unit and contents may be hot, wear appropriate protective equipment.

IV. MAINTENANCE

1. Periodically inspect and clean chamber if materials spill (e.g. food, bedding)

2. Keep outside of unit clean by using a stainless steel cleaner.

3. Autoclave units are tested and verified as to proper function in accordance with ***SOP #1002*****,** this verification is recorded on the ***Autoclave Sterilization Record,*** and records are maintained in accordance with ***SOP #010***.

4. Routine maintenance and non-routine service is performed by an authorized subcontractor and is documented in writing.

5. Equipment that functions without deficiency, receives regular preventative maintenance, and successfully passes monthly verifications, is considered certified.

V. SAFETY CONSIDERATIONS

1. To prevent the possibility of entrapment by an operator the following procedures utilizing the buddy-system must be followed:
    a. At least two individuals must be present each time the bulk sterilizer is started.
    b. The inside of the autoclave is observed to confirm that no one is inside.
    c. Both individuals will remain outside the autoclave to ensure that no one is inside as the door is closed and the sterilizer cycle is being activated.
    d. By design the door to the sterilizer only closes very slowly to reduce the possibility of entrapment.

2. Signage will be posted at the door and activation switch which states: **"Two individuals must always be present when the sterilizer door is being closed and sterilizer cycle is to be started".**

3. All new employees will be trained/instructed in the use of the buddy-system to preclude the possibility of entrapment prior to being assigned sterilizer duties.

4. All employees will be retrained annually on this SOP.

VI. REFERENCES

1. Refer to manufacturer's instructions for additional information.

Approved: **Date:**