

**STANDARD OPERATING PROCEDURES**  
**DIVISION OF COMPARATIVE MEDICINE**  
**UNIVERSITY OF SOUTH FLORIDA**

SOP#: 908.2

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**TITLE:** Decontamination of Animal Biosafety Level-3 (ABSL-3) Caging and Equipment  
**SCOPE:** Animal Care Personnel  
**RESPONSIBILITY:** Facility Manager and Technical Staff  
**PURPOSE:** To Outline the Proper Procedures for Decontamination of ABSL-3 Animal Caging/Equipment after use with BSL-3 Infectious Agents

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**I. PURPOSE**

1. This procedure outlines the proper procedures for decontamination of ABSL-3 caging and equipment after use with BSL-3 infectious agents.

**II. RESPONSIBILITY**

1. The Facility Manager is responsible for ensuring that staff performing decontamination of caging and equipment used in ABSL-3 activities is adequately trained to perform decontamination procedures, safety practices associated with decontamination have been communicated to relevant staff, and these practices/procedures are adhered to.
2. It is the responsibility of the animal care and cagewash staff assigned to perform decontamination procedures to have specific understanding of the safe handling of caging and equipment used in ABSL-3 activities, and to read, understand, and follow the procedures outlined below.
3. It is the responsibility of the Facility Manager to retain autoclave and cagewash records generated from the facility they manage for a **period of 6 months**.

**III. PROCEDURES**

1. **Soiled microisolator caging/equipment must be autoclaved prior to being removed from the BSL-3 facility** and when decontamination is assured, sent to cagewash for sanitation.
2. Soiled BSL-3 caging/equipment is prepared for autoclaving and autoclaved in accordance with ***USF Interdisciplinary Research Building BSL-3 & ABSL-3 Biosafety Plan & Standard Operating Procedures***, and monitored following ***SOP #1002.7*** entitled ***Monitoring Autoclave Sterilization***.
3. Because of the risk associated with handling biohazardous materials the efficacy of sanitation of ABSL-3 caging and equipment will be documented using ***CMDC #167*** entitled ***BSL-3 Caging Daily Autoclave Log*** and ***CMDC # 168*** entitled ***Autoclave & Cagewash Sanitation Log for ABSL-3 Equipment***.

4. The **BSL-3 Caging Daily Autoclave Log** is used to memorialize autoclave monitoring procedures have been conducted for caging/equipment that will be removed from the BSL-3 facility and sent to cagewash. This log is maintained in Room 413 of the IDRb biosafety suite by the personnel responsible for autoclaving.
5. Complete the **BSL-3 Caging Daily Autoclave Log** as follows:
  - a. **Autoclave ID** - designate which autoclave was used.
  - b. **Date/Load ID** – The load ID is the date the load was autoclaved. Date/Load ID should be clearly marked on the autoclave test pack and biohazardous pack so that packs can be uniquely identified and associated with the results of monitoring recorded on the log. If more than one load is autoclaved per day subsequent loads should be labeled alphabetically (e.g., 1/29/09-B).
  - c. **Autoclave Information** – identify the contents of the load being autoclaved, cycle # if applicable, time of autoclaving, and temperature at which autoclaving was performed.
  - d. **DART** – affix the processed indicator strip from the Daily Air Removal Test pack, place initials of the individual evaluating the process, and the results of the test by checking the Pass/Fail box. Successful air removal is indicated by a uniform black color of all indicator bars.
  - e. **Steraffirm™ Steam Class 6 Emulating Chemical Indicator Strips** – affix the processed strip, place initials of the individual evaluating the process, and record the results of the test by checking the Pass/Fail box. Successful exposure to the sterilization process has occurred if the indicator ink is as dark as or darker than the color standard.
  - f. **Biological Indicator** – record the results of biological indicator (BI) testing by checking the Pass/Fail box for both the test and control BI after appropriate incubation, place initials of the individual evaluating the process, and record the interpretation of the test and control results by checking the Pass/Fail box. Sterility is achieved when the test biological indicator shows no color change and the control indicator shows color change.
  - g. When all results of testing/monitoring are successful as indicated by appropriate color changes for the attached **DART** and **chemical indicator strip(s)**, and **all monitoring processes are initialed and marked as pass**, the individual responsible for transporting the equipment to cagewash signs their name and dates the form.
6. Caging/equipment will be removed from the BSL-3 suite Room 413 **ONLY** when the **BSL-3 Caging Daily Autoclave Log** is completed for the corresponding test load, all testing/monitoring check boxes are marked passed and initialed, the log is signed-off by the transporter, and the Date/Load ID of the autoclaved bags are matched to the log.
7. Caging/equipment meeting all the above requirements will be transported to the cagewash for sanitation.
8. Upon delivery of caging/equipment to cagewash the **Autoclave & Cagewash Sanitation Log for BSL-3 Equipment** is used to memorialize confirmation of sterilization of the arriving load, and is completed as follows:
  - a. **Date/Load ID** - transporter will record the date/load ID of the arriving autoclaved pack(s).

- b. **Autoclave Record/Indicator Verification** – the caging/equipment transporter’s signature here indicates he/she **has visually examined** the ***BSL-3 Caging Daily Autoclave Log at the IDRB*** and all indicators (i.e., DART, chemical indicator strips, and biological indicators) for the test pack, as confirmation that the corresponding biohazardous pack(s) have been autoclaved.
    1. Cagewash personnel **must compare the Date/Load ID of the biohazard bags from arriving from the BSL-3 facility to the Log Date/Load ID** and that the transporter has signed the log prior to opening the bag.
    2. Biohazard **bags should be opened carefully while wearing appropriate personal protective equipment** (e.g., gloves, eye protection, and a particulate mask is recommended).
    3. **Examine the chemical indicator strip** placed in the caging/equipment **to ensure the caging and equipment have been successfully exposed to the autoclave process**. Successful exposure to the sterilization process has occurred if the ink is as dark as or darker than the color standard. **If the ink is not as dark as the color standard, the decontamination process was not successful, re-seal bag and notify a supervisor for appropriate corrective action.**
    4. **If the chemical indicator strip indicates successful decontamination, retrieve the strip and affix to the log**, place initials of the individual evaluating the process, and record the results of the test by checking the Pass/Fail box.
    5. **Place a cagewash temperature strip with the cagewash load** and sanitize using the appropriate cagewash cycle.
  - c. **Cagewash temperature** – affix the cagewash temperature indicator strip for the sanitized load to the log, place initials of the individual evaluating the process, and record the results of the test by checking the Pass/Fail box. **BSL-3 caging/equipment requires a final cagewash rinse of 180°F.** Appropriate sanitation is achieved when the 180°F indicator on the temperature strip turns black.
9. It is the responsibility of the Facility Manager to retain autoclave records generated from the facility they manage for a **period of 6 months**.

Approved:

Date: