



TITLE: CINJ - Operation and Maintenance of Bottle Filler and Autoclave

SOP Category: Facilities

RUAC SOP #: 2.12

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Approval: *Lisa Antonucci*

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SCOPE:

This SOP applies to all Animal Care Staff (ACS), ACS Supervisors (ACSS), Veterinary Staff (VS), and Research Staff members (RS) at the Rutgers University facilities.

This document describes the procedures to be followed when covers the operation of the Cancer Institute of New Jersey (CINJ) vivarium autoclave and bottle filler.

OBJECTIVE:

The objective is to establishes the procedures for operation of the bottle filler and small autoclave equipment in the CINJ cage wash facility.

Bottle Filling Station

The bottle filling station is used to provide treated drinking water to research animals that do not use the automatic watering system.

The bottle filling station components are: Control panel, power supply/motor start, 30-gallon reservoir tank, fill manifold, fill table, mixing chamber, depressurization pump, Injection pump, container tank.

The bottle filling station BFS-675 is a complete proportioning system designed to accurately mix and dispense plain or treated drinking water into the racks of bottles. The flow rate of the water into the bottles is programmed into a timer in increments of 0.01 seconds.

At CINJ there is a stand-alone tank next to the bottle filler for filling water bottles.

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Filling stand-alone tank



- The stand-alone tank is a **5-gallon carboy**. To avoid air bubbles in the line the carboy should never be allowed to empty. It is recommended to not allow carboy to go below 2 gallons. The carboy is marked for a visual reminder of when to fill.

When the carboy is depleted to 2 gallons:

- Add 330 ml bleach and 3 gallons of water (110ml/1 gallon of waste water)
- Test for chlorine parts per million (PPM). This is done after every tank fill and/or once a week prior to filling the first rack of bottles.
- Use blue box kit to test PPM follow instruction in box.

PROCEDURES:

Starting/Using Bottle filler



- The bottle filler control keypad has seven membrane keys for scrolling through screens and configuring the control panel.
- Control panel is configured once and only one setting is saved and used
- Prior to filling the first rack of bottles at the start of the week, purge the machine 3 times by pressing the **"PURGE" button**. This activates a 30 second pulse of water through the piping.
- Place rack of bottles under the filler arm and press the "Fill/ Push" button to activate the fill operation.
 - The bottle filler runs long enough to completely fill the bottles.
 - If bottles are not full enough hit "fill/start" button again.

Please push **Red button** if Emergency occur.

Operation of Small Autoclave

Autoclaves are used to sterilize caging after sanitation and to sterilize bio-hazardous cages prior to disposing of animal bedding waste.

CINJ has one medium size autoclave for autoclaving all caging, shoe box cages, wire bars, and MI tops, water bottles, and biohazard cages.

Power and steam is supplied to both autoclaves from 7 am to 7 pm

- When autoclaving bio-hazard cages open door in dirty cage side; when autoclaving all other supplies open the door on clean cage wash side.



- Open door by manually turning the **handle** to the right until the spindles are clear off the door frame

- Load items by using custom **dolly cart**

- **Load items** on cart
- Wheel the cart in front of autoclave interlocking metal latches into opening in floor of autoclave.



- Slide top of cart with supplies to be autoclaved into autoclave

- Unlatch cart from autoclave by pulling release lever.
- Wheel cart away from area
- Close door by manually turning the handle to the left until the spindles are secured into the door frame

- Press **"4"** twice and cycle will begin.



- When cycle is complete machine will beep twice and display will say “cycle complete”.
- Remove item by opening door and using cart in the reverse sequence as describe above.

Maintenance/Repairs for autoclaves

- RV Industries performs preventative maintenance (PM) on the autoclaves.
- Repairs are scheduled and coordinated with RV industries through the RUAC supervisors, RUAC manager and/or the RUAC Assistant Director of Operations.