**Cage Washer: Health Science Building 012**

Last Reviewed: January 29, 2024

 **I. Purpose**
This standard operating procedure is designed to describe the proper use and maintenance of the cage washer in Health Science Building 012 in order to maintain sanitation of animal caging.

**II. Responsibility**
It is the responsibility of all LAR Staff to know the proper use of the cage washer located in HS 012 and to understand the different cycles, safety features, and upkeep procedures associated with it.

**III. Protective clothing**

* A lab coat designated for the dirty cage wash room and gloves must be worn when handling dirty animal contact materials.
* When handling clean animal contact materials, wear scrubs and clean gloves. A clean lab coat may also be worn

**IV. Procedure**

* Push dirty items into the dirty cage wash room via HS 015A (minding the lip of the door!)
* Power should already be ON (if not, flip the ON/OFF switch located at the top of the control panel)

**Bedframe**

* Items commonly washed on the bedframe include hoppers, water bottles, cage card holders, lixits, playpens, etc.
	+ The water pressure in this cage washer is very strong, so make sure items that may get propelled upwards are secured with additional bottle holder racks, basket lids, and/or hoppers
	+ Sometimes it is also helpful/necessary to place the metal basket lids across the base of the bedframe to prevent items from falling through the framework of the bedframe during the cycle
* If it is the first load of the day, apply a thermolabel temperature strip to one item in the load
* Once loaded, push the bedframe into the cage washer, walk around to the clean side, open the door, lift the square attachment point up, and slide the metal disc attached to the bedframe forward so that it is secured within the attachment point
* Close the clean side door, walk back around to the dirty side, and push the two sheep weights behind the back wheels of the bedframe in order to prevent it from moving during the cycle
	+ Sometimes when the cage washer is still hot, the clean side door does not want to shut. If after one or two tries the red “Door Open” light is still illuminated (\*making sure that the door to the dirty side of the cage washer is closed), leave the door open and allow it to cool for a few more minutes before attempting to close it again.
	+ Trying to close the door more forcefully in order to get it to shut is not always the best way to get it to close! Sometimes closing the clean side door too forcefully will dislodge the metal disc from the square attachment point. If you hear a metallic clunking sound after closing the door really hard, double check that the disc hasn’t gotten dislodged (otherwise, water will not spray through the metal, rotating arms below the bedframe)
* To run the bedframe, select the "Quick Lock” button in the bottom right-hand corner of the control panel so that it is green and says “Quick Lock On” (Red indicates that it is off- it will also say “Quick Lock Off”)
* Touch “Start” to begin the cycle
* At the end of the wash cycle, put on a pair of clean gloves, unload clean items through the clean side of the cage washer (via the main corridor) onto a clean cart, and put away in the clean cage storage room

**Tree**

* Items commonly washed on the tree include mouse, rat, and hamster boxes, lids, autoclave bins, etc.
	+ Lids are often placed on the top shelf, followed by small mouse boxes/hamster boxes, and with large mouse boxes/rat boxes on the bottom shelf
	+ Shelves with lids and small mouse boxes must be secured by placing metal bars across them
* If it is the first load of the day, apply a thermolabel temperature strip to one item in the load
* To run the tree, make sure the sheep weights are pushed to the outer sides of the cage washer, push the rack in as far as it will go, while making sure that the bar that extends above the top of the front of the tree is lined up with the guide located in the middle of the top of the cage washer
* Set the control panel so that the "Quick Lock" is off
* Touch "Start" to begin the cycle
* At the end of the wash cycle, put on a pair of clean gloves, unload clean items through the clean side of the cage washer (via the main corridor) onto a clean cart, and put away in the clean cage storage room

**Mouse/Rat/Playpen Racks**

* Same procedure as the running tree, however the back wheels of the racks should be secured using the sheep weights

**V. Safety features**

* Emergency STOP button on both doors of the cage washer.
* The emergency cable **inside** the cage washer turns off all power to cage washer
* **CAUTION**: Items that have just finished being washed will be very hot! Be mindful of hot standing water and metal surfaces. Once the cycle has completed, the clean side door may be cracked open to allow the load to cool off before handling

**VI. Monitoring cage washer chemicals**

* Monitor chemical usage in 30-gallon drums per Sanitation Strategies quarterly testing of pH, water hardness, and dosing; recorded in a notebook in HS 009
* Alert Facility Manager to reorder chemicals as needed.
* Every Friday, check the level of salt located in the dirty cage wash room in the blue barrel to the left of the cage washer, adding more if necessary

**VII. Sanitation monitoring**

* Hygiena [SystemSURE](https://www.umt.edu/laboratory-animal-resources/sops/sop-system-sure-sanitation.php) Plus (SOP) - indicates that sanitation has occurred; use once a month.
* [Thermolabel Temperature Strips](https://www.umt.edu/laboratory-animal-resources/sops/sop-thermolabel-temp-strips.php) (SOP) - indicates that the temperature of the load successfully reached 180°F; use one strip for the first cage wash load of the day

**VIII. Weekly maintenance, etc.**

* Cage washer grates should be cleaned once a week
* One optional step is to turn the cage washer off the night before it is due to be cleaned so that it may fully dry. Then, any visible, large debris may be vacuumed up
* On the dirty side of the cage washer, open the door and remove the first few floor panels to reveal the screens underneath
* There are four screens total: two in the middle, and two on the outer sides
* Remove the screens, thoroughly hose them down, and, if needed, use a scrubby brush to remove any debris
* Spray down the basin area below the screens
* Replace the screens and floor panels
* When the temperature is expected to drop to or below freezing, leave one door to the cage washer open to allow heat inside/prevent it from freezing!

**IX. Troubleshooting**

* For specific cage washer problems, call Getinge Signature Services: (800) 950-9912.
* For specific facilities problems, call Facilities Services: (406) 243-6091.
* Detergent purchases use Sanitation Strategies: (541) 217-1909