

Standard Operating Procedure

SOP Number: **02-18-4108**

Service: **Research**

Operating Section: **Husbandry**

Unit: **CMF**

Title: **Operation, Validation and Maintenance of the Cage/Rack Washer**

Purpose:

To outline instructions for operation and preventative maintenance procedures of the rack washer.

Procedure:

- 1) Operation:
 - a) Confirm that all services to the unit (e.g. steam, hot and cold water, electricity, air supply, and dry/exhaust) are turned on and operational. Confirm that all filter screens, floor grates and spray arms are in place. Turn the **ON/OFF** power selector switch from **OFF** to the **ON** state. The operator interface will illuminate and go through a self-diagnostics. Wait until the initial Start Screen is displayed.
 - b) Select a cycle by pressing the Cycle Button on the touchscreen. Once a cycle has been selected, the operator interface will display the cycle selected in the Cycle Selected location. If the selected cycle is correct, press the **START** pushbutton on the faceplate or the **PRESS START** button on the touchscreen.
 - c) At the final rinse cycle, a temperature of at least 180°F/82°C must be reached to achieve maximum decontamination. If the machine does not meet the assigned guarantee temperature in the allowable time, an alarm message "TG NOT MET – TRY AGAIN?" Will show on the Status Line of the operator interface display. The operator is able to redo the thermal disinfection phase of the cycle by pressing the **START** button. The operator has a maximum of three (3) tries to achieve thermal disinfection of the load. After the final attempt, the alarm message "TEMP GUARANTEE NOT MET!!!" will show on the Status Line of the operator interface display. The unit is now in a "locked" state. The Operations Manager/CMF is contacted immediately and will investigate the problem. The machine will not be used until the problem has been resolved.
 - d) If temperature reaches 180° F/82°C but equipment does not appear clean after a complete cycle, the operator will assess the problem and return the equipment to the rack washer for repeat cleaning/sanitization.
 - e) When the unit has completed the cycle, the operator interface will display "Cycle Completed – Remove Load" on the Status Line.
 - f) At the end of the day, the unit should be turned off. Turn the **OFF/ON** power selector switch from **ON** position to the **OFF** position. The operator interface will be turned off as soon as the **OFF** position has been selected.
 - g) If the unit will not be used for an extended period of time, or maintenance has to be done, close all the supply valves to the unit, and position the main electrical supply panel switch to the off position.
- 2) Validation:
 - a) Once daily, temperature-sensitive tape, such as temp-tape 180° will be affixed to two areas not receiving a direct spray from the washer nozzles.
 - b) Cage/rack washer settings are to be maintained at routine settings as appropriate to the type of caging.
 - c) Temperature sensitive tapes are examined immediately after the caging is removed from the washer. The color strip should be entirely black; if one or more strips are not entirely black, the process for that washer should be repeated. If after the second test, one or more strips are not entirely black, then the washer will have "failed" the validation test.

- The CMF Operations Manager must be notified immediately and subsequently will contact LUC Facilities. The machine will not be used until the problem has been resolved.
- d) The above checks will be documented on a rack washer validation log.

3) Preventive Maintenance:

- a) Daily (CMF Staff):
- (1) *Internal Debris Basket and Screens:* After the last cycle of the day (allow the machine to cool) wash the double debris screens (4) while still wet and replace them in the chamber. The top 2 screens have a beveled edge on one side. This side goes toward the middle of the machine.
 - (2) *External Filter:* (Change filters one at a time). After the last cycle of the day (allow the machine to cool) pull out the external filter. Spray down the filter, remove the debris with a wire brush and reassemble.
 - (3) *Filter for Chilled Water Heat Exchanger:* (Change filters one at a time). After the last cycle of the day (allow machine to cool) pull out the external filter. Spray down the filter, remove the debris with a wire brush and reassemble.
- b) Weekly (CMF Staff):
- (1) *Surface Cleaning:* Clean the exterior cabinet with a commercial stainless steel cleaner or polish.
- c) Weekly (Facilities):
- (1) *Rotary Spray Arms:* Remove the spray arm from the hub. Shake out any debris within the spray arm. Flush out all orifices of the spray arm. Return the spray arm to the hub.
- d) Monthly (CMF Staff):
- (1) *Door Operation:* Ensure smooth operation of the door.
- e) Monthly (Facilities):
- (1) *Spray Arm Hub Assembly Removal:* Lift hub off its axle. Flush out all orifices of the hub. Remove all foreign matter from the hub axle and three-piece bushings. Remove all mineral deposits and soil. Re-assemble.
 - (2) *Chamber Interior:* Pour liquid de-scaler into the sump. Position the power switch **ON**. Select a descaling cycle. Press the **START** button. Upon completion of the cycle, press **START** again to rinse the system. After completion of the second cycle allow the unit to air dry. Clean debris from the bottom filters.
 - (3) *Door Safety Switch:* Wearing proper PPE attempt to initiate a cycle with the door open. Close the door and start a cycle. Wearing proper PPE slowly open the door to check operation of automatic stop. Verify that the appropriate door open message functions properly.

OFFICE USE ONLY:

APPROVALS

Responsible Official Signature		Date	
<i>[Signature]</i>		4/28/18	
QA Signature		Date	
<i>[Signature]</i>		04/26/2018	
Version	Effective Date	Supersedes	Original Date
#3		#2	