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soptunnel

## J. Tunnel Washer Operation

### Purpose:

The following are directions for operation of cage and cagetop tunnel washers located in Bldg. 9210.

### Responsibility: Animal Care Technician

### Procedure/Discussion:

Preparation of tunnel washers for cage washing on the 1st, 2nd, and 3rd floors: 2<sup>nd</sup> floor cage wash is primary washer and 1<sup>st</sup> and 3<sup>rd</sup> floor washers are backups.

- Allow 30 minutes prior to cagewashing.
- Clean wash tank screen.
- Close drain valve on wash tank (close backflush valve, also, on 2<sup>nd</sup> floor cage washer).
- Activate the Main Power Switch.
- Fill the wash tank with processed hot water. Close water valve when water reaches the overflow level. Do not let tank overflow.
- If the machine is automatic, the steam will come on when the power switch is activated. Turn on exhaust fan and open steam valve (if manual).
- If the tank is boiling, check to be sure that adequate water remains in the tank for operations. This should also be checked during operations.
- Ensure that the automatic detergent dispenser is turned on. Ensure that there is adequate detergent in the barrel. If the barrel needs to be replaced, notify the Supervisor.
- Ensure that on the 2<sup>nd</sup> floor machine the rinse valve is partially open prior to commencing operations.
- ONCE weekly run an acid wash as described below.
- Record the weekly acid wash on the log sheet.

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Operation of tunnel washers for cage washing on the 1st, 2nd, and 3rd floors:

**EAR PLUGS AND SAFETY GLASSES MUST BE WORN.**

**In addition to ear plugs and safety glasses, a dust mask MUST be worn when dumping soiled bedding.**

**Dust masks are available from the supervisor and training in their use is provided by OSHP.**

- If the tank temperature is at least 180EF , operations for washing may proceed. Be certain that tank temperature is recorded on the log sheet. The log sheet is kept in the Plexiglas container mounted on the wall. Notify the Supervisor when the logsheet is full. **If the tank temperature is not at least 180EF, notify the Supervisor and do not proceed with cage washing.**
- Turn on exhaust fan and dryer (dryers must be run).
- Turn on the switch to the wash pump and conveyor belt.

Assignment of Staff:

- Two animal caretakers are assigned to the “dirty” end of the cage wash.
- Two animal caretakers are assigned to the “clean” end of the 2nd floor cage wash (3 for 1<sup>st</sup> and 3<sup>rd</sup> floor).
- A white line separates “clean” and “dirty ” sides of each cage wash. Personnel must not cross the white barrier line (i.e., stay on assigned side).
- Personnel on the “clean” end are to wear protective lab coats and hair covers if they have performed any “dirty” activities prior to commencing cagewashing.
- Equipment being moved from “dirty” to “clean” **must** either pass through the cage washer (e.g., cages) or be sprayed thoroughly (including wheels) with Quatricide as they are passed across the white barrier line (e.g., platform trucks).

“Dirty” Cage Wash Activities:

- Duplex cage boxes are emptied by dumping them over the disposal unit located at the front of each tunnel washer. Two boxes are able to run through the tunnel washer together.

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- After every three (3) to five (5) loads, check the filter screens. If they are full of debris, empty screens before proceeding. Wear padded gloves provided to ensure that no burns occur.
- Individuals dumping cages should ensure that damaged cages or cages with a red "X" are removed from circulation and discarded (e.g., turn cage cross-wise so "clean" staff can readily identify cages to discard).
- Each platform truck, when emptied of dirty cages, should be brushed off and sprayed thoroughly with Quatricide (including wheels) as it is passed over the white barrier line.
- At the end of each run record the ending water tank temperature on the log sheet provided.
- Each afternoon, empty waste from slide-out trays on pre-wash. Wash off screens. Sweep the floor at the front of the machine (dumping area).
- At the end of the washing schedule in the afternoon, close the Steam Valve (switch), and turn off switches to Exhaust Fan, Washer Pumps and Conveyor Belt.
- Open Drain Valve for wash tank and leave open until the following day.
- Deactivate Main Power Supply Switch located on wall if it is in your working area.
- *Return to the cage wash before leaving for the day and wet vac, squeegee, or mop up any puddles that have formed.*

"Clean" Cage Wash Activities:

- See Bedding Dispenser SOP for filling of cages on the 2nd floor cage wash machine <http://bio.lsd.ornl.gov/internal/manuals/animals/sopbeddingdisp.pdf>. For the 1<sup>st</sup> and 3<sup>rd</sup> floors, as cages exit the cage washer, gather two boxes together and use one large scoop of bedding to fill both boxes. Fill the boxes as evenly as possible. Bedding should be approximately one (1) inch deep throughout each cage.
- Individuals filling or stacking cages should ensure that damaged cages or cages with a red "X" are removed from circulation and discarded.
- Stack 80 (one load) clean boxes on a **clean** (rinsed prior to use) platform truck and push to storage area.

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- IF cages come through the tunnel washer with any debris remaining, they **MUST** be run through the washer again. If this is a persistent problem notify the Supervisor and suspend operations until such time as a solution to the problem can be found. **DO NOT FILL BOXES CONTAINING ANY DEBRIS WITH CLEAN BEDDING, AND DO NOT PUT THEM INTO CLEAN STORAGE!!!** Jets are cleaned on a monthly basis to prevent this problem.
  - Sweep the work area each day after completing all cage filling/stacking tasks.
  - Deactivate Main Power Supply Switch located on wall if it is in your working area.
- Weekly Cleaning of Cagewash Areas:
- **ON FRIDAY**, remove all platform trucks, shavings carts, etc., from tunnel wash room. Hose down all parts of the floor. Wash off the exterior of the tunnel washer. This task to be performed by both “clean” and “dirty” staff.

**NOTE: Main Power Supply Switch MUST be OFF before washing down the machine. Remove the water hose from the wall and thoroughly wash out the wash tank and screens, allowing all debris to flow out the drain.**

- Waxing should be done once monthly.

Preparation of New Tunnel Washer located in Rm. 235:

- Activate Main Power Switch.
- On main menu, activate Control Panel. Tunnel washer will fill automatically and heat water to the pre-set temperature.
- Check to ensure that there is adequate detergent. If the barrel needs to be replaced, notify the Supervisor.
- Allow 30 minutes for the tunnel washer to heat, then press "Start" on the control panel.
- Cycle 1 is used for all items to be washed. Cycle 12 is used for acid wash.

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Assignment of Staff:

- One individual is assigned to the loading/dirty end of the machine. This individual will wear protective clothing.
- One individual is assigned to the unloading/clean end of the machine.
- Personnel are not to switch tasks nor move into clean/dirty zones that are not part of their assigned task.

Operation of New Tunnel Washer:

**EAR PLUGS AND SAFETY GLASSES MUST BE WORN.**

- The tunnel washer can be used to wash a variety of items. A height-adjustable guide is used to vary the height for the objects being washed.

*Cage Tops*

“Dirty” tunnel wash activities:

- Load cage tops into the tunnel washer upside down and two high, three to four across or lay a stack of 8-10 on their side.
- Place cage tops on conveyor belt as evenly as possible.

“Clean” tunnel wash activities:

- As cage tops exit tunnel washer, stack them eight (8) high and transfer them to a clean utility truck.
- Cage tops may be stacked approximately thirty (30) to a stack on a **clean** (rinsed after each use) utility truck.
- Mark the loaded utility truck with a “clean” tag.
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Beakers (Assignment to clean/dirty will not apply)

- Adjust the height of the hold-down to accommodate the beakers.
- Place them upside down and run them through.
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Mop Buckets (Assignment to clean/dirty will not apply)

- Adjust the height of the hold down to accommodate the buckets.
- Place them upside down and run them through.
- Record the mop bucket sanitizing on the sparebox activity log sheet.

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Procedures for Machine Shut-down:

- At the end of final run wash cycle, select START AUTO SHUTDOWN.
- Turn off main power supply switch and mop or sweep floor after final run of the day.  
Check filter screens.
- Empty and clean as needed.
- Use wet vac, squeegee or mop to pick up water on floor.
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Weekly Cleaning of New Tunnel Washer:

- Run acid wash (cycle 12) as described below.
- Ensure that the machine has been SHUT DOWN (and automatically drained) and that the Main Power Supply is OFF.
- Wipe entire machine with Shelia Shine as needed.
- Record on the log sheet located by the door to Rm. 235 that the cleaning has been performed.

Acid Wash of Tunnel Washers-

- Close drain valve on wash tank (automatic for MPT tunnel washer).
- Fill tank with processed hot water (automatic for MPT tunnel washer).
- Set automatic wash dispenser to acid wash.
- Activate the main power switch.
- Allow tunnel washer to run for 10 minutes.
- Shut down tunnel washer and drain tank (automatic for MPT tunnel washer).
- Reset automatic wash dispenser to regular wash.
- Record that task has been performed on the appropriate log sheet.