

Covaris Material Decontamination Procedure

This procedure is **required** to be performed on ANY and ALL instruments and instrument components being returned to Covaris Inc. for any reason. Please consult your Chemical, Biological, and/or Radiation Safety Officers as appropriate.

Instruments required to be Decontaminated include:

- S220
- M220
- ME220
- ML230
- E/LE-series
- LE220-plus-Series
- R230 (including eBox, onDeck and WCS)
- Water Conditioning Systems
- Chillers
- CP02

Instrument Decontamination Procedure for BSL 1 and BSL 2 Labs only (Instruments from BSL 3 & 4 labs will **not** be accepted)

See below for a sample decontamination procedure. Review the decontamination procedure to make sure it is adequate for the materials your lab works with prior to implementation. Complete Material Return Form (PN 010286) and return with instrument.

➤ **For chemical contaminants:**

- ☐ Spray equipment with recommended cleaning solution, typically detergent or soapy water, and wipe down surfaces.
- ☐ If the instrument was used with mixed chemical/biological materials, wipe down all surfaces with a fresh 10% bleach solution or bleach substitute (such as BleachRite) with a 10 minute contact time. Perform bleaching protocol as described in section "For Biological Contaminants". If bleach solutions are used on metal surfaces, be sure to wipe down with water or 70% ethanol afterward to prevent corrosion.

Note: Make 70% alcohol solution using isopropanol or ethanol

➤ **For biological contaminants:**

- ☐ Make fresh 10% bleach solution on the day of cleaning
- ☐ Wipe down all surfaces of components being returned with 10% bleach with a 10 minute contact time
- ☐ Follow with a wipe down with water or 70% ethanol afterward to prevent corrosion

Note: Make 70% alcohol solution using isopropanol or ethanol

- ☐ Remove or deface any/all biohazard symbols
- ☐ Perform Bleaching Protocol, per instructions in Appendix A:

Special Instructions for Radioactive Materials

Covaris requires decontamination be performed by individuals and agencies approved to decontaminate material with potential radioactive contamination. Include certification documentation with Material Return Form PN 010286 if instrument is being returned to Covaris.

Appendix A: Bleaching Water Bath System

M220

- Fill reservoir cup with 10% bleach, let sit for 10 minutes, empty
- Rinse with DI water

ME220

- Place a solution of 300 ml of water and 30 ml of household bleach, or equivalent, in the Water Works Supply bottle, and verify the Waste bottle is not full
- Click on the Water Works button to display the Water Works menu
- Click "Fill" and wait for bath to fill
- Click "Circulate" in the Water Works menu
- Allow the bleach/water solution to circulate for at least 10 minutes
- Click "Stop", then click "Empty" in the Water Works menu and allow the bath to drain
- Empty and thoroughly rinse the Supply bottle, fill the Supply bottle with deionized water, and reinstall bottle to the ME220 bottle bay
- Click "Fill" in the Water Works menu, then "Circulate". Allow the water to circulate for 3 to 5 minutes
- Click "Stop", then click "Empty". Allow the bath to drain
- Repeat the above 2 steps twice more
- Empty and thoroughly rinse the Waste bottle and reinstall the empty Waste bottle in the ME220 bottle bay

ML230

- Place a solution of 300mL of water and 30mL of household bleach, or equivalent, in the Supply bottle and verify the Waste bottle is not full.
- Click "Water Control", located on the right-hand panel.
- Click "Fill" and wait for the bath to fill.
- Click "Circulate" and allow the bleach/water solution to circulate for at least 10 minutes.
- Click "Off", then click "Drain" and allow the bath to drain.
- Empty and thoroughly rinse the Supply bottle, fill the Supply bottle with deionized water, and reinstall the bottle to the ML230 bottle bay.
 - Note: "Waste" and "Supply" reservoirs are not interchangeable. The "Waste" bottle vent is marked "Waste".
- Click "Fill", then "Circulate". Allow the water to circulate for 3 to 5 minutes.
- Click "Off", then "Drain". Allow the bath to drain.
- Repeat the above 2 steps twice more.
- Empty and thoroughly rinse the Waste bottle and reinstall the empty Waste bottle in the ML230 bottle bay.

S220

- The water bath and degassing lines may be rinsed with a 10% solution of bleach or equivalent (such as NaDCC)
- Add 200mL of bleach with 1.5 liters of water to the tank - the resultant sodium hypochlorite solution is ~ 0.5% NaOCl
- With this solution in the water bath, lower the transducer and run the degassing pump for a few minutes

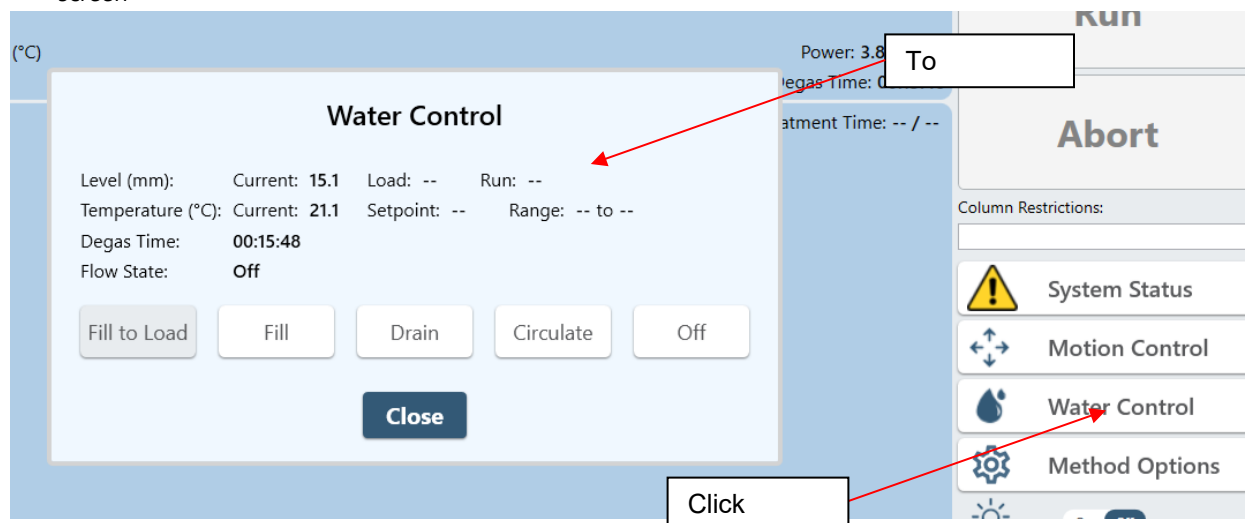
- Drain the solution and repeat this process with fresh water in the water bath to purge any bleach or equivalent from the system

E/LE-Series

- The water bath and degassing lines should be rinsed with a 10% solution of bleach or equivalent (such as NaDCC). The resultant sodium hypochlorite solution is ~ 0.5% NaOCl. Perform the following cleaning protocol:
- Turn off the chiller
- Turn off the WCS or WCS 2.0 (if present) and disconnect its hoses from the front of the water tank
- Fill the tank with approximately 450 ml of household bleach or equivalent and the rest with DI water
- Operate the degas pump for approximately 5 minutes
- Empty the bleach/water solution
- Place the empty water tank back into the instrument and operate the degas pump for a few seconds to purge the bleach solution from the pump lines and housing
- Empty the tank, rinse, and fill with fresh DI water
- Place the water tank back into the LE220 and operate the degas pump for 3 minutes
- Repeat previous 2 steps 2x more
- Fill the tank with clean DI water, reconnect, and power on the WCS or WCS 2.0. Allow water to degas for at least a half-hour with the chiller turned off

R230:

- Start SonoLab and open the 'Water Control' panel by clicking the 'Water Control' button on the right of the 'Method' screen



- Use the 'Fill', 'Drain' and 'Circulate' buttons on the 'Water Control' pane as instructed below:
 - Empty 'Waste' reservoir and fill 'Supply' reservoir with 600 mL of household bleach and 5.4 liters of deionized water to create a 10% bleach solution (approx. 0.6% sodium hypochlorite)
 - Drain R230
 - Disconnect the hose from the 'B' port on WCS 3
 - Connect hose removed from the 'B' port to the 'Clean' port of the WCS 3

- Fill the R230
- Circulate the water for 5 minutes
- Drain R230
- Disconnect and empty the 'Supply' reservoir and 'Waste' reservoir. Rinse out the Supply reservoir thoroughly with deionized water. Fill 9.5L of deionized water into the 'Supply' reservoir. Reconnect 'Supply' and 'Waste' reservoir
- Fill R230
- Circulate the water for 3 minutes
- Drain R230
- Repeat steps 9 through 11 twice more
- Empty 'Waste' reservoir and Refill 'Supply' reservoir with 4.0L deionized water
- Disconnect the hose from the 'Clean' port and reconnect hose to 'B' port on WCS 3