

SOP #: 807.01Title: **SOP -** Use and Maintenance of Personnel Air Shower

Approvals:

Attending Veterinarian Date: 8/20/20131. Purpose

- 1.1. The intent of this standard operating procedure (SOP) is to describe how to properly use the Terra Universal, Inc. Personnel Air Shower.
- 1.2. This SOP applies to the two Terra Universal, Inc. Personnel Air Showers located in AHC4 – V #542 & #543.

2. Responsibility

- 2.1. All ACF staff is responsible for following this SOP.
- 2.2. The Director of the Office of Laboratory Animal Research and facility supervisors must ensure compliance of this procedure and ensure staff is appropriately trained in the execution of this SOP.

3. Definitions

- 3.1. ACF – Animal Care Facility
- 3.2. Terra Universal, Inc. Personnel Air Showers– all personnel must use to travel to the transgenic area of the facility.

4. Guidelines

- 4.1. *Reagents/Materials*
  - 4.1.1. Not applicable

#### 4.2. Equipment

##### 4.2.1. Terra Universal, Inc. Personnel Air Showers

#### 4.3. Safety Precautions

- 4.3.1. All personnel should be wearing required Personal Protection Equipment (PPE) as outlined in ACF SOP 511 throughout the Vivarium.

#### 4.4. Procedures

##### 4.4.1. Start-Up

- 4.4.1.1. Power up the Air Shower
- 4.4.1.2. At the time, the LCD display should read Shower disabled, press button to enable shower.
- 4.4.1.3. If the display does not ready Shower ready refer to trouble shooting instructions (4.4.3).
- 4.4.1.4. Once all items have been checked and verified for correct operation, purge system several times to ensure all debris has been blown out of the wall cavities.
- 4.4.1.5. The Air Shower is now ready for use.

##### 4.4.2. Touchscreen Choices and Pass Code

- 4.4.2.1. **Log-in pass code:** 8402
- 4.4.2.2. **Security pass code:** 1234
- 4.4.2.3. "Shower Disabled" -> press to enable
- 4.4.2.4. "Shower Ready, Please Enter, Log in" -> Press Log In
- 4.4.2.5. Enter Log-in pass code: "8402"
- 4.4.2.6. If you wish to set up a cycle time, press "Go To Setup," after logging in.
  - 4.4.2.6.1. Here you can alter cycles, and run diagnostics ("Go To Diag).
  - 4.4.2.6.2. When finished press, "Go To Ready," to return back to the main screen.

##### 4.4.3. Air Shower Use

- 4.4.3.1. Enter shower once you see "Door 1 Open"
- 4.4.3.2. Close the door, air shower will begin. Note: There is a red "Emergency Stop" button that you may press if you wish to stop the cycle.
- 4.4.3.3. Once air shower is finished, Door 2 will unlock, and you may proceed to the transgenic area.
- 4.4.3.4. Shut the door, and place second pair of shoe covers onto your feet before proceeding through the transgenic area.

4.4.4. Troubleshooting

<b>Problem:</b>	<b>Possible Cause:</b>
Touchscreen is blank	<ul style="list-style-type: none"> <li>• Circuit breaker has tripped</li> <li>• Disconnect is in the off position</li> <li>• Plug to touchscreen pulled out or is loose</li> <li>• Wire in plug has become loose</li> <li>• 24 volt circuit breaker tripped</li> <li>• Touchscreen has failed</li> </ul>
Lights do not come on	<ul style="list-style-type: none"> <li>• Switch on touchscreen is off</li> <li>• Light tubes came loose or have broken</li> <li>• Light plug or wire has come loose from control box</li> <li>• Light breaker in control panel has tripped</li> <li>• Light relay has failed</li> <li>• Light ballast has failed</li> </ul>
Air shower does not leave emergency stop mode even when buttons are pulled out	<ul style="list-style-type: none"> <li>• Plug to control panel has come loose</li> <li>• Wire has come out of terminal at the e-stop</li> <li>• N.C. e-stop switch has failed</li> </ul>
Door lock fails to operate	<ul style="list-style-type: none"> <li>• Lock is turned off, check diagnostics menu</li> <li>• Lock is jamming in door frame</li> <li>• Door switch is not operating or has failed</li> <li>• Door plug to control panel has come loose</li> </ul>
Shower does not go into cycle when person enters shower	<ul style="list-style-type: none"> <li>• Sensor plug to control panel has come loose</li> <li>• Wire has come loose from sensor plug</li> <li>• Sensor has no power</li> <li>• Sensor out of adjustment (use remote control to reprogram span)</li> <li>• Entry door switch not operating</li> </ul>
Shower starts cycle but blowers do not come on	<ul style="list-style-type: none"> <li>• Motor starter overload tripped (check for proper amp adjustment using dial)</li> <li>• Faulty motor starter</li> <li>• PLC output is loose or has failed</li> </ul>
Shower starts cycle and keeps running	<ul style="list-style-type: none"> <li>• Blower output wire from processor has shorted to ground</li> <li>• PLC has failed or program has been erased</li> </ul>
Cannot access menu and/or diagnostics	<ul style="list-style-type: none"> <li>• Entered wrong passcode</li> <li>• Touchscreen is unplugged or bad</li> <li>• Door(s) are open</li> <li>• Toggle switch on top of PLC not in run mode</li> </ul>

5. References

- 5.1. Terra Universal, Inc. (2010) *Personnel Air Shower Start-Up Instructions, Air Shower Touchscreen Choices and Pass Code, and Trouble Shooting Guide.*