How to Close the Shutter and Access the Sample Pit:

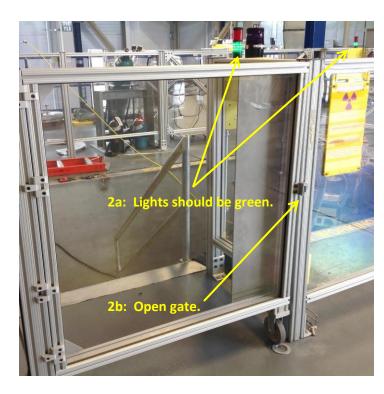
1. Close the secondary shutter.

Never close the primary shutter, except for emergencies. The primary shutter

is shared with BL-11b (MaNDi).

- a. On the yellow shutter control panel, under "SEC SHUTTER", press the green "CLOSE" button.
- b. After a few minutes, a circular button will appear on the touchscreen, in the box labeled "SECONDARY SHUTTER KEY RELEASE". Press it. You should hear a click and the "KEY(S) FREE WHEN ILLUMINATED" indicator next to the II key should be lit; if not, press the onscreen button again.
- c. Rotate the "II" key to the vertical "KEY FREE" position.
- 2. Access the sample pit.
 - a. Verify that the status lights in the sample pit area are green.
 - b. Open the gate.





Sample Pit Status Lights

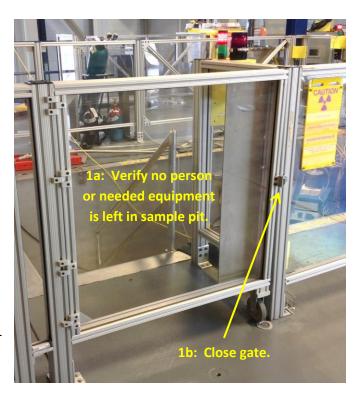
Red – Unsafe, Entry Not Allowed

Green - Safe, Entry Allowed

If a problem is encountered, contact the IHC (865-241-4432) or beamline staff.

How to Sweep the Sample Pit and Open the Shutter:

- 1. Sweep the sample pit.
 - a. Visually verify that no people are inside the sample pit area and that no tools or other equipment that may be needed (e.g. the RadEye G monitor) is left inside.
 - b. Close gate.
 - c. Immediately proceed to step 2.
- 2. Open the secondary shutter.
 - On the yellow shutter control panel, rotate the "II" key to the horizontal "KEY TRAPPED" position. The sample pit status lights will turn red.
 - b. Under "SEC SHUTTER", press the red "OPEN" button.
 - c. When red "OPEN" button is lit, the shutter is open and beam is hitting the sample.





Shutter Button Lights

Red – Shutter is open

Green - Shutter is closed

If a problem is encountered, contact the IHC (865-241-4432) or beamline staff.