

## How to Close the Shutter and Access the Sample Pit:

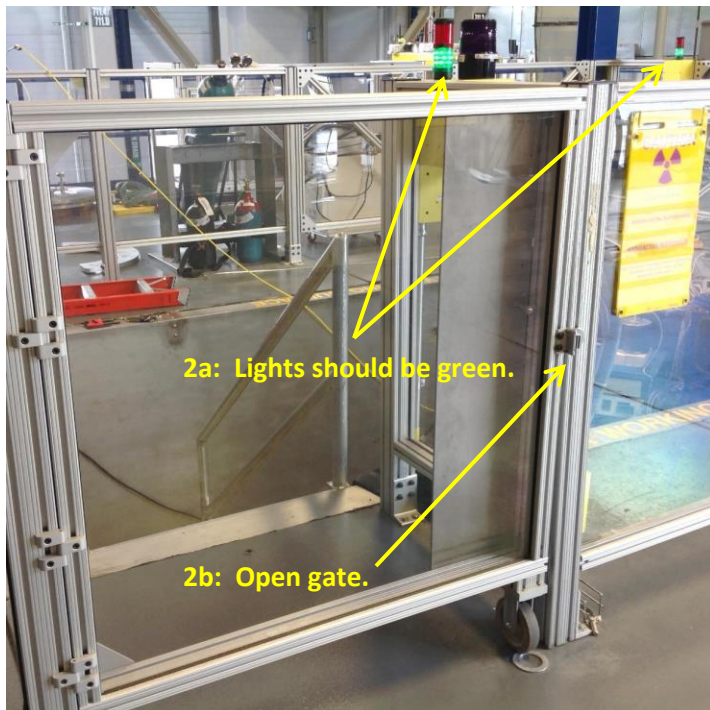
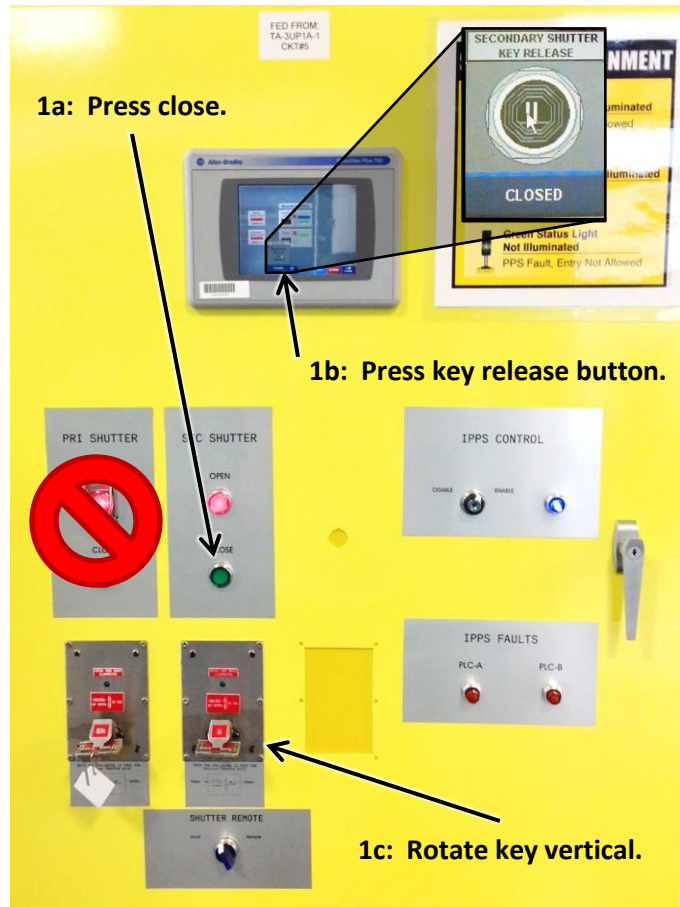
1. Close the secondary shutter.

**Never close the primary shutter, except for emergencies. The primary shutter is shared with BL-11b (MaNDi).**

- On the yellow shutter control panel, under "SEC SHUTTER", press the green "CLOSE" button.
- 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 should be lit; if not, press the on-screen button again.
- Rotate the "II" key to the vertical "KEY FREE" position.

2. Access the sample pit.

- Verify that the status lights in the sample pit area are green.
- Open the gate.



### Sample Pit Status Lights

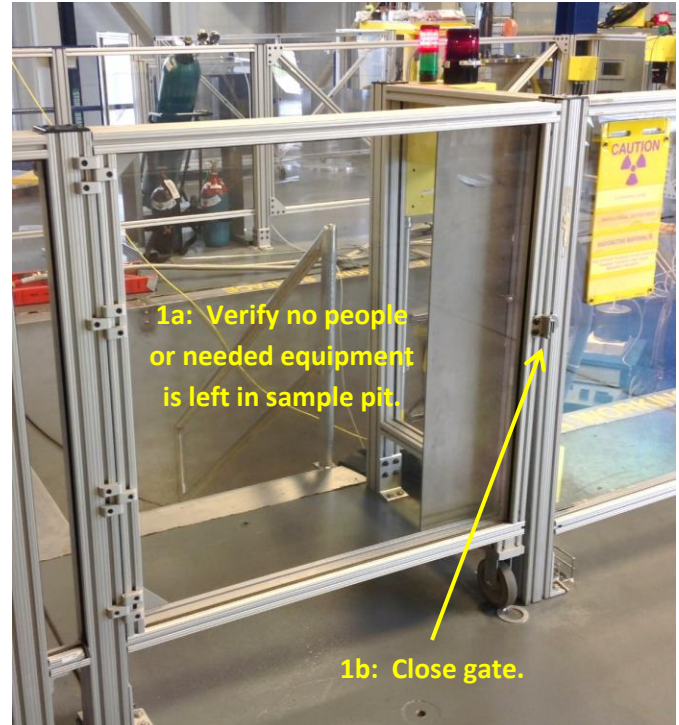
**Red** – Unsafe, Entry Not Allowed

**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. RadEye G monitor) is left inside.
  - b. Close gate.
  - c. Without delay, proceed to step 2.
2. Open the secondary shutter.
  - a. 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.**