

Procedure for Entry into NSRL Target Room During Controlled Access Mode
(Using the Optical Turnstile, Iris Recognition and RFID System)

 The procedure for entry into the NSRL target room during Controlled Access Mode was modified in 2009.

The new system uses optical turnstiles and an RFID system to track people going in and out. Previously, entries and exits were coordinated by calling a Main Control Room (MCR) Operator on an intercom or telephone at the gate. The Operator was also watching the gate area remotely via video camera. Although this has changed, please be aware that a surveillance camera will still be recording for review later if needed.

Turnstiles: Optical turnstiles (2 in tandem) count each person going in and each person going out. They also track the direction of the travel (in or out).

RFID: The RFID system identifies and monitors the specific key going in and going out. Prior to entry, each individual pulls a key from the key tree using their iris recognition. An RFID tag is attached to each key. This assures that each entering individual is carrying a key.

Procedure:

NOTE: For initial iris enrollment, new Users go to Bldg 911, Room A128 (telephone x7007).

ENTERING

1) Go to the experimental access area. On the control panel adjacent to the key tree, observe whether the yellow or red light is on:

If YELLOW (2nd light from top): This means the system is already in Controlled Access Mode. Proceed to step 2 below.

If RED (top light): First be sure that there is no irradiation in progress. (If in doubt, check with the dosimetry physicists). Then, push in the red button mounted below the panel. Observe on the control panel that the red light goes off and the yellow light goes on. You have now changed the mode from “Prohibited” to “Controlled” access.

Note: If beam is on and you push in the red button, this will crash (stop) the beam. This is safe, but will cause some program disruption.

2) From a distance of about 10 inches look into the iris scanner and center the bridge of your nose with the red dot seen in the mirror. (The red dot will turn green once you are recognized.)

NOTE: There are two up/down buttons on either side of the scanner to adjust the scanner alignment for proper recognition.

3) Follow the instructions of the iris scanner automated voice: the iris scanner will speak instruction to you if you are too far or too close.

4) Once recognized, you are permitted to pull a key from the key tree.

Note: Before you pull a key, the automated voice from the iris scanner will let you know that you have been successfully recognized. You will also hear the relay release on the key tree.

Note: To pull a key, turn it 180 degrees counterclockwise and pull out the key.

Note: Once a key is removed, the key tree can not be accessed again until a second iris scan. The same individual cannot retrieve two keys at the same time without a violation.

Note: Each key has an RFID tag attached. Each tag has a unique ID based on its slot position in the key tree. Each key is labeled with the number of its corresponding key slot.

5) Upon removing a key, the access door will open automatically.

Note: The door will open towards you.

6) Observe that the lighted sign above the access door displays GREEN. If RED, this will usually mean a person before you has not yet cleared through the optical turnstiles. Simply wait for the person to clear and for the sign to go GREEN. YELLOW means the Sweep is lost; contact the Liaison Physicist in this case.

7) Proceed through the optical turnstiles.

IMPORTANT: You must carry the key, with the attached RFID tag, with you through the optical turnstiles and into the target room.

Caution: Keeping the key with you while in the target room (a primary beam area) is important for your safety. Beam cannot be sent into the target room unless all keys are properly returned to the key tree.

Note: Only one person at a time is permitted through the turnstiles.

Note: You may check that the RFID was successfully read by observing a small green light come on for approximately 1 second. This small light is on the back side of the wall-mounted adjustable-arm monitor to your right.

Based on several trials, here are tips on carrying the key & RFID tag through the turnstiles for successful read:

- It is best to leave the tag exposed and not shielded inside a closed hand.
- Putting the key and tag in a “tight” pocket may cause it to go un-detected (un-read).
- Putting the key and tag in a loose lab coat pocket usually is OK. Don’t hold the tag in your hand in the pocket however.

Note: If the tag is not successfully read, this is not unsafe but may cause some programmatic delay.

Note: The access door will remain open while people are entering and exiting. The turnstile and RFID systems will track all going in and out.

EXITING

8) To leave the target room, observe that the lighted sign at the exit area displays GREEN. This sign is the wall-mounted adjustable-arm monitor. Then simply walk out through the optical turnstiles and out through the open door. The door will have remained open during the access.

Note: If the lighted sign displays RED, this will usually mean a person before you has not yet cleared through the optical turnstiles. Simply wait for the person to clear and for the sign to go GREEN. YELLOW means the Sweep is lost; contact the Liaison Physicist in this case.

Note: Only one person at a time is permitted through the turnstiles.

Caution: In an emergency, and if the door has closed for some reason, simply open the door manually by pushing on the crash bar on the inside of the door and exit.

9) Proceed back to the iris scanner for iris system logout and key replacement.

10) From a distance of about 10 inches look into the iris scanner and center the bridge of your nose with the red dot seen in mirror.

Note: The automated voice from the iris scanner will let you know when you have been successfully recognized.

11) Upon recognition by iris scanner, put the key back in the slot of origin within 4 seconds and turn it 180 degrees clockwise.

NOTE: You must complete your exit iris scan before replacing the key.

NOTE: The system will not allow you to put the key in a different slot than it was taken from.

12) Restore the access control mode to “Prohibited Access Mode” by pulling out the red button mounted below the control panel. Observe that the yellow light on the control panel goes off, and the red light goes on. This may take a half-minute or so. You have now changed the mode from “Controlled” to Prohibited” access mode. The access door will close automatically.

If RED
Light is ON:

**Access
PROHIBITED
Mode**

Control Panel

Iris Scanner

If Yellow
Light is ON:

**Controlled
Access Mode**



Key Tree

Red Button

