

<b>Subject:</b>	<b>X17C Radiological Interlock Test</b>		
<b>Number:</b>	LS-PPS-0006	<b>Revision:</b>	D
		<b>Effective:</b>	06/27/06
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\*Approval signatures on file with master copy.

[Revision Log](#)

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Test Reason:	Test Result: <input type="checkbox"/> Passed <input type="checkbox"/> Failed
	Test Type: <input type="checkbox"/> Full <input type="checkbox"/> Partial
Test Date:	Start Time:    Finish Time:
Tester 1:	Assistant 1:
Tester 2:	Assistant 2:

**PREPARATION:**

Inform control room operator that test will be done.  
 Turn off 'Red Tag' switch on x-ray ring interlock, and red tag it.  
 Verify that vacuum valves and water interlocks are satisfied on X17C, or jumper user interlock.

1. Search the hutch
  - The overhead lights go out \_\_\_\_\_
  - The red interior light comes on \_\_\_\_\_
  - The audible alarm sounds for 13 to 15 seconds minimum \_\_\_\_\_
  - The hutch interlock sign turns on \_\_\_\_\_
  
2. Open hutch door
  - The hutch interlock sign goes out \_\_\_\_\_
  
3. Press CS-1, close hutch door and wait.
  - Hutch interior lights come on in not more than 20 seconds \_\_\_\_\_
  - Press CS-E.
    - Interlock does not activate \_\_\_\_\_
  
4. Press interior search button, close door, press CS-E, note that alarm comes on, open and close door, press CS-E again. (This must all be done in less than the timeout interval noted in step 3).
  - Interlock does not activate \_\_\_\_\_
  
5. Secure Transport Hutch. Search X17C hutch, one person remains inside.
  - The STRESS "enable" light does not come on until the end of the warning interval \_\_\_\_\_
  
6. The person inside presses an Emergency Stop Button.
 

	<b><u>ES1</u></b>	<b><u>ES2</u></b>
The shutter "enable" light goes out	_____	_____
The ES indicator comes on	_____	_____
The ES latch cannot be reset unless the SOR key is turned	_____	_____



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15. Reset RIA and RIB. Open STRESS shutter, and press an emergency stop button.
- RIA latch light comes on \_\_\_\_\_
  - RIB latch light comes on \_\_\_\_\_
  - Hutch interlock drops out \_\_\_\_\_
  - STRESS closes \_\_\_\_\_
  - BLISS closes \_\_\_\_\_
- Reset RIA, RIB and ES. Search hutch.
16. Open STRESS "C" by pressing and holding the button on the air solenoid. BLISS remains closed.
- Remove holder on switch 2 and replace
  - RIB trips \_\_\_\_\_
  - Reset RIB, release switch 1
  - RIA trips \_\_\_\_\_
  - Close STRESS "C".
17. Search hutch. Turn off air to STRESS "C" on the solenoid bank. Cycle shutter open & closed until the STRESS remains closed when open button is pressed. Open BLISS.
- Remove holder on switch 2 and replace
  - RIB trips \_\_\_\_\_
  - Reset RIB, release switch 1
  - RIA trips \_\_\_\_\_
  - BLISS Closes \_\_\_\_\_
  - Open air valve to solenoid bank.
  - Search hutch.
18. Open shutters. Remove the Control Room Shutter Enable Key for X17C, then replace the key.
- STRESS & BLISS close \_\_\_\_\_
  - RIA trips \_\_\_\_\_
  - The "Control Room Inhibit" light comes on \_\_\_\_\_
  - The SPA latch comes on (after the key is back on) \_\_\_\_\_
  - STRESS cannot be opened \_\_\_\_\_
- Reset RIA and SPA
19. Turn "Auto Open" key to ON. At the Control Room, switch the Shutter Master Enable to "Inhibit" and back to "Enable".
- STRESS & BLISS close \_\_\_\_\_
  - And then re-open \_\_\_\_\_
- Turn Auto Open key OFF. Switch the Shutter Master Enable to "Inhibit" and back to "Enable".
- STRESS closes \_\_\_\_\_
  - And does not re-open \_\_\_\_\_

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20. One person goes to the x-ray equipment area and observes the indicators for RIAX and RIBX.  
Open STRESS and BLISS.

Remove switch holder from door switch number 2.

RIB latch light comes on \_\_\_\_\_

RIBX trips \_\_\_\_\_

Replace switch holder. Attempt to reset RIBX.

RIBX will not reset \_\_\_\_\_

Reset RIB

RIBX resets \_\_\_\_\_

21. Remove holder from door switch 1.

RIA latch light comes on \_\_\_\_\_

RIAX trips \_\_\_\_\_

Attempt to reset RIAX

RIAX will not reset \_\_\_\_\_

Reset RIA

RIAX resets \_\_\_\_\_

22. Remove the holders from the switches. Remove the latch device from the lock.  
Stand inside the hutch and open and close the door.

Both door switches operate freely and each  
"clicks" when door is opened \_\_\_\_\_

23. Remove user interlock test jumper (if applicable). \_\_\_\_\_

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