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C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.120.52.e U-Upstream & V-Target (PEER 23) Mode 24 Tests

C-A-OPM Procedures in which this Attachment is used.		
4.120.52		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
_____	_____	_____	_____
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Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

V. Castillo

4.120.52.e U-Upstream & V-Target (PEER 23) Mode 24 Tests

PASS ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title:_____ Checksum: _____

Division B Software Filename and Checksum: Title:_____ Checksum: _____

Initial testing complete:

Test Team Leader's Name (Print): _____ Life Number: _____

Test Team Leader's Name (Sign): _____ Date: ____/____/____

Acceptance test procedure complete (following repairs and retesting if required):

Test Team Leader's Name (Print): _____ Life Number: _____

Test Team Leader's Name (Sign): _____ Date: ____/____/____

Test results reviewed by:

Safety Section Head's Name (Print): _____ Life Number: _____

Safety Section Head's Name (Sign): _____ Date: ____/____/____

Test results accepted by Radiation Safety Committee:

RSC Member's Name (Print): _____ Life Number: _____

RSC Member's Name (Sign): _____ Date: ____/____/____

1.1 Test Critical Devices: AGS Injection Enable 1(AGS1/PS BF6) and AGS Injection Enable 2 (AGS2/PS DH2,3) can only be enabled in No Access Mode (Mode 24)

	PLACE	Peer 23 in Controlled Access (Mode 16)	
<input type="checkbox"/>	VERIFY	MCR sees Peer 23 is in	MODE 16
	AT	Bldg 921 Critical Device Enclosure #5470	
<input type="checkbox"/>	VERIFY	Relay 5470 K10 AGS Injection Enable 1 Div A is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K9 AGS Injection Enable 1 Div B is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K3 AGS Injection Enable 2 Div A is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K4 AGS Injection Enable 2 Div B is	OFF
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS Injn: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	Safely Off
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS1: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	OFF
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS2: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	OFF
	SWEEP	Areas U up and V Target	
<input type="checkbox"/>	VERIFY	Areas U up <input type="checkbox"/> , and V Target <input type="checkbox"/> are	SWEPT
	PLACE	Peer 23 in No Access (Mode 24)	
<input type="checkbox"/>	VERIFY	Peer 23 is in	MODE 24
	AFTER	90 sec time-out	
	AT	Bldg 921 Critical Device Enclosure #5470	
<input type="checkbox"/>	VERIFY	Relay 5470 K10 AGS Injection Enable 1 Div A is	ON
<input type="checkbox"/>	VERIFY	Relay 5470 K9 AGS Injection Enable 1 Div B is	ON
<input type="checkbox"/>	VERIFY	Relay 5470 K3 AGS Injection Enable 2 Div A is	ON
<input type="checkbox"/>	VERIFY	Relay 5470 K4 AGS Injection Enable 2 Div B is	ON
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS Injn: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	Not Safely Off
	TURN OFF	Feed-forward switch	
<input type="checkbox"/>	VERIFY	Feed-forward switch is	OFF
	TURN ON	PS BF6 to ~ IDLE	
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS1: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	ON
	TURN ON	PS DH2,3 to ~ IDLE	
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS2: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	ON
	UNCAPTURE	Any key in the Uup-Vtgt keytree	
<input type="checkbox"/>	VERIFY	MCR sees Peer 23 go to	MODE 2
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS Injn: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	Safely Off
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS1: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	OFF
<input type="checkbox"/>	VERIFY	MCR sees on PASS Testing AGS2: Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	OFF
	AT	Bldg 921 Critical Device Enclosure #5470	
<input type="checkbox"/>	VERIFY	Relay 5470 K10 AGS Injection Enable 1 Div A is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K9 AGS Injection Enable 1 Div B is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K3 AGS Injection Enable 2 Div A is	OFF
<input type="checkbox"/>	VERIFY	Relay 5470 K4 AGS Injection Enable 2 Div B is	OFF
<input type="checkbox"/>	VERIFY	Attempt to turn on PS BF6	FAIL
<input type="checkbox"/>	VERIFY	Attempt to turn on PS DH2,3	FAIL

RECAPTURE Key

- PLACE** **Peer 23 in Restricted Access (Mode 8)**
 - VERIFY** **MCR sees Peer 23 is in** **MODE 8**

 - AT** **Bldg 921 Critical Device Enclosure #5470**
 - VERIFY** **Relay 5470 K10 AGS Injection Enable 1 Div A is** **OFF**
 - VERIFY** **Relay 5470 K9 AGS Injection Enable 1 Div B is** **OFF**
 - VERIFY** **Relay 5470 K3 AGS Injection Enable 2 Div A is** **OFF**
 - VERIFY** **Relay 5470 K4 AGS Injection Enable 2 Div B is** **OFF**

 - VERIFY** **MCR sees on PASS Testing AGS Injn: Div A and Div B** **Safely Off**
 - VERIFY** **MCR sees on PASS Testing AGS1: Div A and Div B** **OFF**
 - VERIFY** **MCR sees on PASS Testing AGS2: Div A and Div B** **OFF**

 - VERIFY** **Attempt to turn on PS BF6** **FAIL**
 - VERIFY** **Attempt to turn on PS DH2,3** **FAIL**

 - PLACE** **Peer 23 in Controlled Access (Mode 16)**
 - VERIFY** **MCR sees Peer 23 is in** **MODE 16**

 - AT** **Bldg 921 Critical Device Enclosure #5470**
 - VERIFY** **Relay 5470 K10 AGS Injection Enable 1 Div A is** **OFF**
 - VERIFY** **Relay 5470 K9 AGS Injection Enable 1 Div B is** **OFF**
 - VERIFY** **Relay 5470 K3 AGS Injection Enable 2 Div A is** **OFF**
 - VERIFY** **Relay 5470 K4 AGS Injection Enable 2 Div B is** **OFF**

 - VERIFY** **Attempt to turn on PS BF6** **FAIL**
 - VERIFY** **Attempt to turn on PS DH2,3** **FAIL**

 - VERIFY** **MCR sees on PASS Testing AGS Injn: Div A and Div B** **Safely Off**
 - VERIFY** **MCR sees on PASS Testing AGS1: Div A and Div B** **OFF**
 - VERIFY** **MCR sees on PASS Testing AGS2: Div A and Div B** **OFF**
- Check for acceptance of Test Critical Devices: AGS Injection Enable 1(AGS1/PS BF6) and AGS Injection Enable 2 (AGS2/PS DH2,3) can only be enabled in No Access Mode (Mode 24)**

1.2 Test Critical Devices: AGS Injection Enable 1(AGS1/PS BF6) and AGS Injection Enable 2(AGS2/PS DH2,3) and Reachback Devices: Booster Injection Enable 1(BS1) and Booster Injection Enable 2(BS2) respond to U-Up & V-Target Security System Chipmunk Radiation Interlocks sensed by A or B Division.

	PLACE	Peer 23 in Mode 2	
<input type="checkbox"/>	VERIFY	Peer 23 is in SafeAccess	MODE 2
	DETACH	Cable from any Security System U-Up & V-Tgt Chipmunk NMO# _____	
<input type="checkbox"/>	VERIFY	MCR sees Chipmunk as	TRIP & FAILSAFE
	RESET	Trip & Failsafe at MCR	
<input type="checkbox"/>	VERIFY	Attempt to reset Trip & Failsafe at MCR	FAIL
	CONNECT	Chipmunk Test box to the Chipmunk cable	
<input type="checkbox"/>	VERIFY	MCR sees Chipmunk as	O.K.
	PLACE	Peer 23 in No Access (Mode 24)	
<input type="checkbox"/>	VERIFY	MCR sees Peer 23 in	MODE 24
	TURN ON	BF6 & DH2,3 Feed-forward Switch	
<input type="checkbox"/>	VERIFY	BF6 & DH2,3 Feed-forward Switch	ON
	OPEN	Reachback Devices: BS1 and BS2	
<input type="checkbox"/>	VERIFY	MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> go to	OPENED
	AT	Bldg 914 Critical Device Encl # 4576	
<input type="checkbox"/>	VERIFY	PS BF6 Interlock OFF light is	OFF
	AT	Bldg 914 Critical Device Encl # 4577	
<input type="checkbox"/>	VERIFY	PS DH2,3 Interlock OFF light is	OFF
<input type="checkbox"/>	VERIFY	MCR sees in Interruptions Crit. Devices: BF6 <input type="checkbox"/> and DH2, 3 <input type="checkbox"/>	DISABLED
	ENABLE	PS BF6 and PS DH2,3	
	AT	Bldg 914 Critical Device Encl # 4576	
<input type="checkbox"/>	VERIFY	PS BF6 Interlock OFF light is	ON
	AT	Bldg 914 Critical Device Encl # 4577	
<input type="checkbox"/>	VERIFY	PS DH2,3 Interlock OFF light is	ON
<input type="checkbox"/>	VERIFY	MCR sees in Interruptions Crit. Devices: BF6 <input type="checkbox"/> and DH2, 3 <input type="checkbox"/>	ENABLED
	PRESS	A Div Trip button on Test Box	
<input type="checkbox"/>	VERIFY	Peer 23 remains in No Access	Mode 24
<input type="checkbox"/>	VERIFY	MCR sees Div A radiation	TRIP
	AT	Bldg 914 Critical Device Encl # 4576	
<input type="checkbox"/>	VERIFY	PS BF6 Interlock OFF light is	ON
	AT	Bldg 914 Critical Device Encl # 4577	
<input type="checkbox"/>	VERIFY	PS DH2,3 Interlock OFF light is	ON
<input type="checkbox"/>	VERIFY	MCR sees in Interruptions Crit. Devices: BF6 <input type="checkbox"/> and DH2, 3 <input type="checkbox"/>	DISABLED
<input type="checkbox"/>	VERIFY	MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> go to	CLOSED
	CLEAR	Rad TRIP	
<input type="checkbox"/>	VERIFY	Rad TRIP is	CLEARED
	OPEN	Reachback Devices: BS1 and BS2	

- | | | | |
|--------------------------|----------------|---|-----------------|
| <input type="checkbox"/> | VERIFY | MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> go to | OPENED |
| | AT | Bldg 914 Critical Device Encl # 4576 | |
| <input type="checkbox"/> | VERIFY | PS BF6 Interlock OFF light is | ON |
| | AT | Bldg 914 Critical Device Encl # 4577 | |
| <input type="checkbox"/> | VERIFY | PS DH2,3 Interlock OFF light is | ON |
| <input type="checkbox"/> | VERIFY | MCR sees in Interruptions Crit. Devices: BF6 <input type="checkbox"/> and DH2, 3 <input type="checkbox"/> | ENABLE |
| | PRESS | B Div Trip button on Test Box | |
| <input type="checkbox"/> | VERIFY | Peer 23 remains in No Access | Mode 24 |
| <input type="checkbox"/> | VERIFY | MCR sees Div B radiation | TRIP |
| | AT | Bldg 914 Critical Device Encl # 4576 | |
| <input type="checkbox"/> | VERIFY | PS BF6 Interlock OFF light is | ON |
| | AT | Bldg 914 Critical Device Encl # 4577 | |
| <input type="checkbox"/> | VERIFY | PS DH2,3 Interlock OFF light is | ON |
| <input type="checkbox"/> | VERIFY | MCR sees in Interruptions Crit. Devices: BF6 <input type="checkbox"/> and DH2, 3 <input type="checkbox"/> | ENABLED |
| | AT | Bldg 914 Critical Device Encl # 4576 | |
| <input type="checkbox"/> | VERIFY | MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> go to | CLOSED |
| | CLEAR | Rad TRIP | |
| <input type="checkbox"/> | VERIFY | Rad TRIP is | CLEARED |
| | DETACH | Chipmunk Test box from cable | |
| | CONNECT | Chipmunk to cable | |
| <input type="checkbox"/> | VERIFY | Chipmunk is | CHIRPING |
| <input type="checkbox"/> | VERIFY | MCR sees Chipmunk as | O.K. |
- Check for acceptance of Test Critical Devices: AGS Injection Enable 1(AGS1/PS BF6) and AGS Injection Enable 2(AGS2/PS DH2,3) and Reachback Devices: Booster Injection Enable 1(BS1) and Booster Injection Enable 2(BS2) respond to U-Up & V-Target Security System Chipmunk Radiation Interlocks sensed by A or B Division.**

1.3 Test of Crash Operators in U-Up area

STATION Test personnel in U-Up area

PLACE Peer 23 in No Access Mode
 VERIFY MCR sees Peer 23 in **MODE 24**
 VERIFY No Access Alarm for Div A and Div B is **ON**

FOLLOW Tests in Table 2 below

Pull Crash cord while alarm sounds	Verify Alarm stops		Verify Peer 23 goes to Mode 2		Reset Crash	Place Peer 23 in Mode 24	
	Div A	Div B	Div A	Div B			
Uup CO -1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			End of test

Table 2 – Test of Crash Operator in U-Up area

- Check for acceptance of Test of Crash Operator in U-Up area

1.4 Test of Mode 24 indication on V-Target area Gate Box [Omit This Test Until Further Notice]

PLACE Peer 23 in No Access Mode
 VERIFY MCR sees Peer 23 in **MODE 24**
 VERIFY At V-Target gate box No Access light is **ON**

- Check for acceptance of Test of Mode 24 indication on V-Target area Gate Box [Omitted Until Further Notice]

1.5 Test that opening gate UGE1 in No Access, Mode 24, causes Peer 23 to go to Safe mode

VERIFY Hardware , Electrical at UGE1 is **O.K.**
STATION Test personnel inside UGE1 gate
PLACE Peer 23 in No Access mode
 VERIFY MCR sees Peer 23 in **MODE 24**
 VERIFY Alarms for Div A and Div B **O.K.**
 VERIFY At UGE1 gate box No Access light is **ON**

WAIT For 90 sec **timeout** to **expire**

VERIFY Attempt to open gate UGE1 with **Simultaneous Release** and #6 CA **key** **FAIL**

OPEN Gate UGE1 from **inside** and **hold open**

- | | | | |
|--------------------------|---------------|---|------------------|
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 Div A <input type="checkbox"/> and Div B <input type="checkbox"/> go to | MODE 2 |
| <input type="checkbox"/> | VERIFY | MCR sees UGE1 gate Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | OPEN |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 U-Up Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | NO SWEEP |
| | CLOSE | Gate UGE1 | |
| <input type="checkbox"/> | VERIFY | MCR sees UGE1 gate Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | NOT RESET |
| | PLACE | Peer 23 in Restricted Access mode | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 in | MODE 8 |

- Check for acceptance of Test that opening gate UGE1 in No Access, Mode 24, causes Peer 23 to go to Safe mode

1.6 Test that opening gate UG11 in No Access, Mode 24, causes Peer 23 to go to Safe mode

- | | | | |
|--------------------------|----------------|---|------------------|
| <input type="checkbox"/> | VERIFY | Hardware <input type="checkbox"/> , Electrical <input type="checkbox"/> at UG11 is | O.K. |
| | STATION | Test personnel inside UG11 gate | |
| | PLACE | Peer 23 in No Access mode | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 in | MODE 24 |
| <input type="checkbox"/> | VERIFY | Alarms for Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | O.K. |
| <input type="checkbox"/> | VERIFY | At UG11 gate box No Access light is | ON |
| | WAIT | For 90 sec timeout to expire | |
| <input type="checkbox"/> | VERIFY | Attempt to open gate UG11 with Simultaneous Release and Zero key from U-down (Peer 25) side | FAIL |
| | OPEN | Gate UG11 from inside (U-up / Peer 23) side) and hold open | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 Div A <input type="checkbox"/> and Div B <input type="checkbox"/> go to | MODE 2 |
| <input type="checkbox"/> | VERIFY | MCR sees UG11 gate Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | OPEN |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 U-Up Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | NO SWEEP |
| | CLOSE | Gate UG11 | |
| <input type="checkbox"/> | VERIFY | MCR sees UG11 gate Div A <input type="checkbox"/> and Div B <input type="checkbox"/> | NOT RESET |
| | PLACE | Peer 23 in Restricted Access mode | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 in | MODE 8 |

- Check for acceptance of Test that opening gate UG11 in No Access, Mode 24, causes Peer 23 to go to Safe mode

1.7 Test that all keys captive is a necessary condition for No Access mode

- PLACE** Peer 23 in **Restricted Access** mode
- VERIFY** MCR sees Peer 23 in **MODE 8**

- CAPTURE** All EB006 and EB007 keys
- VERIFY** All EB006: 1 , 2 , 3 , 4 , 5 , 6 and EB007: 1 , 2 are **CAPTURED**

- AT** Above MCR terminal room
- VERIFY** Peer 1A output 3/0 is **ON**
- VERIFY** Peer 1B output 2/16 is **ON**

- FOLLOW** Tests in **Table 3**, below

Remove key	Verify LEDs go OFF		Capture key	Verify LEDs go ON		Go to next key
	Peer 1A output 3/0	Peer 1B output 2/16		Peer 1A output 3/0	Peer 1B output 2/16	
EB006-1	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB006-2	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB006-3	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB006-4	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB006-5	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB006-6	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB007-1	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EB007-2	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	Back to test

Table 3 – Removal and Capture of EB006 and EB007 keys

- PLACE** Peer 23 in **No Access** mode
- VERIFY** MCR sees Peer 23 in **MODE 24**

- PULL** Any EB006 or EB007 key
- VERIFY** Peer 1A output 3/0 goes **OFF**
- VERIFY** Peer 1B output 2/16 goes **OFF**
- VERIFY** MCR sees Peer 23 Div A and Div B go to **MODE 2**

- PLACE** Peer 23 in **Restricted Access** mode
- VERIFY** MCR sees Peer 23 in **MODE 8**

- Check for acceptance of Test that all keys captive is a necessary condition for No Access mode**

1.8 Test any U-Up & V-Target Security System Chipmunk for Radiation and Fail-Safe Interlocks.

- | | | | |
|--------------------------|----------------|---|-----------------|
| <input type="checkbox"/> | VERIFY | MCR sees Chipmunk NMO# _____ as | O.K. |
| | PLACE | Peer 23 in No Access (Mode 24) | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 in | MODE 24 |
| <input type="checkbox"/> | VERIFY | BF6 & DH2,3 Feed-forward Switch is | ON |
| | TURN ON | Critical Devices: PS BF6/AGS1 and PS DH2,3/AGS2 | |
| <input type="checkbox"/> | VERIFY | MCR sees Critical Devices: PS BF6//AGS1 <input type="checkbox"/> and PS DH2,3/AGS2 <input type="checkbox"/> | ON |
| | OPEN | Reachback Devices: BS1 and BS2 | |
| <input type="checkbox"/> | VERIFY | MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> | OPENED |
| | PRESS | Test button on Chipmunk for Radiation Interlock | |
| <input type="checkbox"/> | VERIFY | Peer 23 remains in No Access | MODE 24 |
| <input type="checkbox"/> | VERIFY | MCR sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/> Radiation | TRIP |
| <input type="checkbox"/> | VERIFY | MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> | CLOSED |
| <input type="checkbox"/> | VERIFY | MCR sees Critical Devices: PS BF6/AGS1 <input type="checkbox"/> and PS DH2,3/AGS2 <input type="checkbox"/> remain | ON |
| | CLEAR | Rad TRIP | |
| <input type="checkbox"/> | VERIFY | Rad TRIP is | CLEARED |
| | OPEN | Reachback Devices: BS1 and BS2 | |
| <input type="checkbox"/> | VERIFY | MCR sees Reachback Devices: BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> | OPENED |
| | REMOVE | Power from Chipmunk | |
| <input type="checkbox"/> | VERIFY | Peer 23 goes to Safe Access | MODE 2 |
| <input type="checkbox"/> | VERIFY | MCR sees BS1 <input type="checkbox"/> and BS2 <input type="checkbox"/> | CLOSED |
| <input type="checkbox"/> | VERIFY | MCR sees BF6 <input type="checkbox"/> and DH2,3 <input type="checkbox"/> | OFF |
| <input type="checkbox"/> | VERIFY | MCR sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/> Failsafe | TRIP |
| | ADD | Power to Chipmunk | |
| <input type="checkbox"/> | VERIFY | Chipmunk is | CHIRPING |
| | CLEAR | Chipmunk Interlocks | |
| <input type="checkbox"/> | VERIFY | MCR sees Chipmunk Interlocks | CLEARED |
| <input type="checkbox"/> | VERIFY | MCR sees Chipmunk as | O.K. |
| | PLACE | Peer 23 in Restricted Access (Mode 8) | |
| <input type="checkbox"/> | VERIFY | MCR sees Peer 23 in | MODE 8 |
- Check for acceptance of Test any U-Up & V-Target Security System Chipmunk for Radiation and Fail-Safe Interlocks.**

END OF TEST PROCEDURE

TTL: Sign for completion of initial testing: _____

Date: ____/____/____

TTL: Sign for completion of final testing: _____

Date: ____/____/____