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C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.120.6.d 6 O’Clock (PEER 7) Sweep Tests

C-A-OPM Procedures in which this Attachment is used.		
4.120.6		

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

**4.120.6.d 6 O’Clock (PEER 7) Sweep 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 for Sweep of Zone 5Z1

- |                          |  |   |                    |
|--------------------------|--|---|--------------------|
|                          | <b>CLOSE</b>   | Gates <b>5GS1-I/O, 5EL1, 5GE1, YGI1</b> and <b>5ED1</b>     |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gates <b>5GS1-I/O, 5EL1, 5GE1, YGI1</b> and <b>5ED1</b> are | <b>CLOSED</b>      |
|                          | <b>RESET</b>   | Gates <b>5EL1</b> and <b>5ED1</b>                           |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gates <b>5EL1</b> and <b>5ED1</b> are                       | <b>RESET</b>       |
|                          | <b>PLACE</b>   | <b>Peer 7</b> in <b>Mode 16</b>                             |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>Peer 7</b> is in <b>Controlled Access</b>                | <b>MODE 16</b>     |
|                          | <b>ACTIVATE</b>  | Check station <b>5CS1</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>5CS1</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>5CS2</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>5CS2</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>5CS3</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>5CS3</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>5CS4</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>5CS4</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>5CS5</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>5CS5</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>EXIT</b>  | Gate <b>5GE1</b> with <b>Simultaneous Release</b>           |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | MCR sees Zone <b>5Z1</b>                                    | <b>SWEPT</b>       |
| <input type="checkbox"/> | <b>Check for acceptance of test of Sweep of Zone 5Z1</b> |   |                    |

## 1.2 Test for Sweep of Zone 6Z1

- |                          |  |  |                    |
|--------------------------|--|--|--------------------|
|                          | <b>CLOSE</b>   | Gates <b>6GE1, 6GE2</b> and <b>6MD1</b>                      |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gates <b>6GE1, 6GE2</b> and <b>6MD1</b>                      | <b>CLOSED</b>      |
|                          | <b>RESET</b>   | Gate <b>6MD1</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gate <b>6MD1</b> is  | <b>RESET</b>       |
|                          | <b>PLACE</b>   | <b>Peer 7</b> in <b>Mode 16</b>                              |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>Peer 7</b> is in <b>Controlled Access</b>                 | <b>MODE 16</b>     |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS1</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS1</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS2</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS2</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS3</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS3</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS4</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS4</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>IF</b>  | <b>Star Detector is in place:</b>                            |                    |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS5</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS5</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS6</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS6</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS7</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS7</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>Otherwise</b>   | Go directly to:  |                    |
|                          | <b>ACTIVATE</b>  | Check station <b>6XCS8</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6XCS8</b> indicator ( <b>Area Secured</b> ) | <b>BLINKS ONCE</b> |
|                          | <b>EXIT</b>  | Gate <b>6GE2</b> with <b>Simultaneous Release</b>            |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | MCR sees Zone <b>6Z1</b>                                     | <b>SWEPT</b>       |
| <input type="checkbox"/> | <b>Check for acceptance of test of Sweep of Zone 6Z1</b> |  |                    |

**1.3 Test for Sweep of Zone 6Z2**

- |                          |  |   |                    |
|--------------------------|--|---|--------------------|
|                          | <b>CLOSE</b>   | Gates <b>6ED1, XGI2, 6GE3, 6EL1, 6ED2</b> and <b>7GS1-I/O</b>     |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gates <b>6ED1, XGI2, 6GE3, 6EL1, 6ED2</b> and <b>7GS1-I/O</b> are | <b>CLOSED</b>      |
|                          | <b>RESET</b>   | Gate <b>6ED1, EL1</b> and <b>6ED2</b>                             |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Gates <b>6ED1, EL1</b> and <b>6ED2</b> are                        | <b>RESET</b>       |
|                          | <b>PLACE</b>   | <b>Peer 7</b> in <b>Mode 16</b>                                   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>Peer 7</b> is in <b>Controlled Access</b>                      | <b>MODE 16</b>     |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS6</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS6</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS5</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS5</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS3</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS3</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS4</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS4</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS2</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS2</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>ACTIVATE</b>  | Check station <b>6CS1</b>   |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | Check station <b>6CS1</b> indicator ( <b>Area Secured</b> )       | <b>BLINKS ONCE</b> |
|                          | <b>EXIT</b>  | Gate <b>6GE3</b> with <b>Simultaneous Release</b>                 |                    |
| <input type="checkbox"/> | <b>VERIFY</b>  | MCR sees Zone <b>6Z2</b>  | <b>SWEPT</b>       |
| <input type="checkbox"/> | <b>Check for acceptance of test of Sweep of Zone 6Z2</b> |   |                    |

**1.4 Test for loss of sweep in adjacent zones: 4Z2, 5Z1, with illegal opening of gate 5GS1-I**

- |                          |   |   |                  |
|--------------------------|---|---|------------------|
|                          | <b>PLACE</b>  | <b>Peers 7 &amp; 9</b> in <b>Mode 2</b>   |                  |
| <input type="checkbox"/> | <b>VERIFY</b>   | <b>Peers 7</b> <input type="checkbox"/> & <b>9</b> <input type="checkbox"/> are in <b>Safe Access</b>         | <b>MODE 2</b>    |
| <input type="checkbox"/> | <b>VERIFY</b>   | The warning lights and LED message: <b>Stop Call MCR for Access X-7400 Stop</b> on both sides of the gate are | <b>ON</b>        |
| <input type="checkbox"/> | <b>VERIFY</b>   | The warning light on both sides of <b>5GS1-O</b> indicate <b>Call MCR for crossover</b> <b>Amber</b>          | <b>ON</b>        |
|                          | <b>SWEEP</b>  | <b>Zones 4Z2 &amp; 5Z1</b>  |                  |
| <input type="checkbox"/> | <b>VERIFY</b>   | Zones <b>4Z2</b> <input type="checkbox"/> & <b>5Z1</b> <input type="checkbox"/> are                           | <b>SWEPT</b>     |
| <input type="checkbox"/> | <b>VERIFY</b>   | <b>5GS1</b> gatebox lights are:   |                  |
|                          |   | <b>Area Secured (S11)</b> <b>Amber</b> <input type="checkbox"/>   | <b>ON</b>        |
|                          |   | <b>Area Secured (S10)</b> <b>Amber</b> <input type="checkbox"/>   | <b>ON</b>        |
|                          | <b>OPEN</b>   | Gate <b>5GS1-I</b> without a <b>Simultaneous Release</b>  |                  |
| <input type="checkbox"/> | <b>VERIFY</b>   | MCR sees Zone <b>4Z2</b> is   | <b>NOT SWEPT</b> |
| <input type="checkbox"/> | <b>VERIFY</b>   | MCR sees Zone <b>5Z1</b> is   | <b>NOT SWEPT</b> |
| <input type="checkbox"/> | <b>VERIFY</b>   | MCR sees <b>Peer 7</b> remains in   | <b>MODE 2</b>    |
| <input type="checkbox"/> | <b>VERIFY</b>   | MCR sees <b>Peer 9</b> remains in   | <b>MODE 2</b>    |
| <input type="checkbox"/> | <b>VERIFY</b>   | <b>5GS1</b> gatebox lights are:   |                  |
|                          |   | <b>Area Secured (S11)</b> <b>Amber</b> <input type="checkbox"/>   | <b>OFF</b>       |
|                          |   | <b>Area Secured (S10)</b> <b>Amber</b> <input type="checkbox"/>   | <b>OFF</b>       |
|                          | <b>CLOSE</b>  | Gate <b>5GS1-I</b>  |                  |
| <input type="checkbox"/> | <b>Check for acceptance of test for loss of sweep in adjacent Zones: 4Z2, 5Z1, with illegal opening of gate 5GS1-I.</b> |   |                  |

**1.5 Test for retention of sweep in adjacent Zones: 4Z2, 5Z1, with proper opening of gate 5GS1-I**

- |                          |  |   |                |
|--------------------------|--|---|----------------|
|                          | <b>PLACE</b>   | <b>Peers 7 &amp; 9 in Mode 16</b>   |                |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>Peers 7 <input type="checkbox"/> &amp; 9 <input type="checkbox"/> are in Controlled Access</b> | <b>MODE 16</b> |
| <input type="checkbox"/> | <b>VERIFY</b>  | The warning lights and LED message: <b>Stop Call MCR for Access</b>                               | <b>ON</b>      |
|                          |  | <b>X-7400 Stop</b> on both sides of the gate <b>5GS1-I</b> are                                    |                |
| <input type="checkbox"/> | <b>VERIFY</b>  | The warning light on both sides of <b>5GS1-O</b> indicate   |                |
|                          |  | <b>Call MCR for crossover Amber</b>   | <b>ON</b>      |
|                          | <b>SWEEP</b>   | <b>Zones 4Z2 &amp; 5Z1</b>  |                |
| <input type="checkbox"/> | <b>VERIFY</b>  | Zones <b>4Z2 <input type="checkbox"/></b> & <b>5Z1 <input type="checkbox"/></b> are               | <b>SWEPT</b>   |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>5GS1</b> gatebox lights are:   |                |
|                          |  | <b>Area Secured (S11) Amber <input type="checkbox"/></b>  | <b>ON</b>      |
|                          |  | <b>Area Secured (S10) Amber <input type="checkbox"/></b>  | <b>ON</b>      |
|                          | <b>OPEN</b>  | <b>Gate 5GS1-I with a Simultaneous Release</b>  |                |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>MCR</b> sees Zone <b>4Z2</b> is  | <b>SWEPT</b>   |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>MCR</b> sees Zone <b>5Z1</b> is  | <b>SWEPT</b>   |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>MCR</b> sees <b>Peer 7</b> remains in  | <b>MODE 16</b> |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>MCR</b> sees <b>Peer 9</b> remains in  | <b>MODE 16</b> |
| <input type="checkbox"/> | <b>VERIFY</b>  | <b>5GS1</b> gatebox lights are:   |                |
|                          |  | <b>Area Secured (S11) Amber <input type="checkbox"/></b>  | <b>ON</b>      |
|                          |  | <b>Area Secured (S10) Amber <input type="checkbox"/></b>  | <b>ON</b>      |
|                          | <b>CLOSE</b>   | <b>Gate 5GS1-I</b>  |                |
| <input type="checkbox"/> | <b>Check for acceptance of test for retention of sweep in adjacent Zones: 4Z2, 5Z1, with proper opening of gate 5GS1-I</b> |   |                |

**END OF TEST PROCEDURE**

**TTL: Sign for completion of initial testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**TTL: Sign for completion of final testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_