PPS Security Fault Alarm Response Procedure

Introduction

The Personnel Protection System (PPS) ensures the security of the PPS enclosure from unplanned access through a number of interlocked devices, including key banks, door switches, gate switches, Emergency Off (EO) buttons, and electronic latched states (such as "search pre-set," "search re-set," "search complete," "no access," etc.). If a security door is opened or an EO button is pushed while the PPS enclosure is in the "no access" state, then the "search complete" indicator on the NLCTA PPS Control Panel (B128-05) turns off, hazards are disabled, and an audible alarm sounds. A PPS security fault may indicate that an inside gate opened, a person opened a door or pressed an EO button inside the enclosure, or it may indicate a serious malfunction of the PPS security system.

Applicability

This procedure specifies the response of the Engineering Operator in Charge (EOIC) or another qualified operator to a PPS security fault.

Guiding Principle:

Every activation of the PPS system must be treated seriously and a carefully considered response is required.

> *Note: If at any time during this procedure you discover that a person was in the controlled area when a radiation hazard was present, then follow the Incident Response Procedure [02-05-02] for a radiation emergency.*

Procedure

1. Verify that:
   - The PPS Control Panel indicates that the Hazards are OFF
   - Go into the End Station and verify that the HVPS power supplies for the RF stations are all off

2. Determine if a person was or is in the NLCTA enclosure.
   - If possible, watch (or appoint someone to watch) the TV monitors for the PPS entry module door cameras.
   - Go (or appoint someone to go) to the PPS enclosure to visually inspect the area for the person(s) involved in causing the PPS fault.

3. If a person was found to be inside the enclosure:
   - Find out how the person entered the enclosure without being logged in, where the person was, and for how long.
   - Notify the Safety Officer and the Operations Manager.
   - Log all observations in the Operations Log.
   - Follow the procedures in the SLAC Workbook for Occurrence Reporting [Vol. 01-03].
   - Suspend the scheduled accelerator program.

4. If no person caused the fault, try to determine which device (such as a door switch or EO button) caused the security fault by looking at the local PPS panel and questioning those around the enclosure.

5. If it can be positively determined that the failure was benign, accelerator operation can resume after the following steps have been taken:
   - The sequence of events must be understood by at least two qualified operators.
   - Log all observations in the Operations Log.
   - Perform a PPS Interlock Check [02-03-03], then search and secure the PPS enclosure.

   Benign events may include loss of security due to a power failure or from an inside gate swinging open.

6. In all other circumstances:
   - Notify the Safety Officer and the Operations Manager.
   - Suspend the scheduled accelerator program.

7. Enter all observations and actions taken in the NLCTA Operations Log.

Resources

Controls Department PPS System Manager

NLCTA Operations Engineer

NLCTA Operations Manager

NLCTA Safety Officer

Accelerator Department Safety Office

Documentation

SLAC Guidelines for Operations [01-01-14]

SLAC Workbook for Occurrence Reporting [Vol. 01-03]

NLCTA Search and Secure Procedure [02-03-01]

NLCTA PPS Interlock Checklist [02-03-03]

NLCTA Incident Response Procedure [02-05-02]

NLCTA Operations Log

Approvals

Document Reviewed by
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NLCTA Safety Officer		Date
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