

Electrical Work Plan

(Reference ES&H Bulletin 68A. Attach additional pages as needed)

Job Name: SPEAR3 Large Power Supplies Control Board Troubleshoot and Inspection

Location: B118 – Power Supplies Build

Effective Dates Of Plan - Start: 03/04/2005 **End:** 03/03/2006

Work To Be Performed By: Fernando Rafael, Greg Johnson and Critt Taylor

Person In Charge: Fernando Rafael **Phone:** x4607

Description Of Work:

Troubleshoot, inspect and test SPEAR3 Large Power Supplies System.

Including:

- Lock and Tag pertaining Power supply, using the appropriate ELP and Lock and Tag MCC-3 or MCC-4, as required.
- Verify Power Supply de-energization, measuring the voltage in 480 Vac bus and output DC bus.
 - Access the power supply through the back door using key #IN8
 - Use voltmeter class IV or high, rated 25 kV.
 - Ground the output busses using appropriate ground hook
- Turn Auxiliary Breaker off and verify absence of voltage 120 Vac and output voltage +/- 15 Vdc and 24 Vdc, using class 3 voltmeter in the Auxiliary supplies.
- Troubleshoot the power supply using Unipolar Large Switchmode DC Power Supply manual, reference Number JO4958/4959 – IEPOWER Manual.

Associated Hazards (e.g. voltage, current, etc.):

- 480 Vac Input Voltage
- 120 Vac AC controls
- 600 Vdc output voltage (storage energy in output CAP's)

Hazard Mitigation (e.g. specific PPE, barriers, etc):

Lock Out the system using appropriate ELP Procedure.

Use PPE to turn Breakers:

- Hazard Risk Category 0 clothing, non-melting, flammable materials, (i.e. untreated cotton, wool, rayon, or silk, or blends of these materials) Shirt (long sleeve), pants (long), closed toe work shoes.
- Electrical safety glasses/goggles w/UV Protection
- Two Person Rule, both CPR training

Inspection Required After Work? - Yes _____ No _____ (Required for New Installations.)

Originator: Fernando Rafael _____ **Date:** 01/23/2005

Approvals As Required By Bulletin 68a (Sign, print name and title, and date):

Participants (All workers to read, sign, print name and date):