

ELECTRICAL HAZARD ANALYSIS / WORK PERMIT

For Selected Work Activities on the AC Electrical Power Distribution System

JOB NAME & LOCATION: Wilson Hall 13th SXO Power DistributionEFFECTIVE DATES OF PERMIT: Start: 8/30/2006 End: 9/30/2006WORK TO BE PERFORMED BY: Arlington Electric (T&M) – Jeff DementTASK MANAGER: Tom Prosapio PHONE: 6442 / 951-0168Does the Work Involve Diagnostic Energized Work? Yes No (Includes LOTO Verification)Does the Work Involve Manipulative Energized Work? Yes No (Justification Required)Is an Inspection Required After Work is Completed? Yes No (Required for New Installations)**DESCRIPTION OF WORK:**

Bring three new 120 VAC @ 20amp circuits from distribution panel PP-CL-13W-1 to the remodeled south crossover.

ASSOCIATED HAZARDS:

Shock, electrocution, burns, explosion, arc blast, and arc flash.

HAZARD MITIGATION: Indicate Hazard/Risk Category (-1, 0, 1, 2, 2*, 3 or 4): 0 & 1

Hazard mitigation is to de-energize circuits 25-27-29 in power distribution panel PP-CL-14W-1 which controls power to PP-CL-13W-1. De-energizing this panel will affect only those persons located on the south half the west tower of the 13th floor.

Hazard Risk Categories per NFPA70E;

1. Panel Boards Rated \leq 240V – Operating an CB with covers on = Class 0
2. Panel Boards \leq 240V – Verifying power is off = Class 1

Steps to be followed for this hazard mitigation include:

1. Notify and schedule outage per user requirements. (Outage scheduled for 6:00 AM – duration 1 hour)
2. A walk thru was conducted prior to isolating power feed to understand the extent and affects of the outage along with the hazards.
3. Residents/employees/users of 13W have been asked to power down sensitive electronic equipment prior to initiating the outage.
4. Power distribution panel PHP-CL-14W-1, circuits 25-27-29 will be used to isolate the power feed to panel PP-CL-13W-1.
5. The Arlington electricians performing verification and the distribution work will apply locks and tags to PHP-CL-14W-1, circuits 25-27-29.
6. Verification will be done on the incoming wire connections to panel PP-CL-13W-1.

DEFAULT APPROACH and PROTECTION BOUNDARIES for ENERGIZED WORK

from NFPA 70E Table 130.2(C) for Fixed Circuit Parts and Article 130.3(A). **Indicate if Otherwise.**

For 120/208 VAC: Shock Protection: Limited Approach: **3' 6"**. Restricted & Prohibited Approach: **Avoid Contact**
For 480/277 VAC: Shock Protection: Limited Approach: **3' 6"**. Restricted Approach: **1 Ft.** Prohibited Approach: **1"**
Flash Protection Boundary is 4 Ft (as Qualified by Article 130.3(A) at 300 kA Cycles)

REQUIRED PERSONAL PROTECTIVE EQUIPMENT SELECTION MATRIX

PPE Requirements for Shock & Arc Flash Protection are Fully Described in NFPA 70E, Article 130.7.

Select or Indicate if Otherwise.

Indicate Incident Energy Level for Arc Flash Protection: ≥ 4 cal/cm²

Safety Glasses Hard Hat Arc-Rated Face Shield Leather Work Shoes Hearing Protection

Hand Protection: Class ___ V-Rated Gloves or Class ___ V-Rated Gloves with Leather Protectors

Non-Melting or Untreated Natural Fiber Clothing: Short-Sleeve T-Shirt Long-Sleeve Shirt

Long Pants

Flame-Resistant (FR) Clothing: Coveralls Flash Suit Flash Suit Hood

PREPARED BY: _____

Date: _____

APPROVED BY: _____

Date: _____

ADDITIONALLY APPROVED BY: _____

Date: _____

If FESS Personnel are Performing Work Under this Permit for Another Division/Section, this Permit Must be Approved by Both the FESS Designated Approving Authority as Well as the Electrical Coordinator of the Other Division/Section.

If the Work Activity Involves Any Manipulative Energized Work, State the Justification Here.

ADDITIONAL APPROVALS FOR MANIPULATIVE ENERGIZED WORK

Approval of D/S Electrical Coordinator _____

Approval of Area Division/Section Head _____

Approval of FESS Head _____

(FESS Head Must Sign if FESS Electricians are Performing Manipulative Energized Work Under this Permit for Another D/S)

Approval of Fermilab Directorate _____

Job Briefing Signature Sheet

Person(s) Conducting Briefing: _____

Date: _____

Personnel Present at the Job Briefing Will Sign Below, Thereby Indicating their Understanding of the Scope of Work and Associated Hazard Mitigation Requirements.