Prevention through Design (PtD) Hazard Risk Assessment

Date: 8/18/2020 **Assessed By:** Ryan Crawford **Design Phase** Preliminary
System: Building Infrastructure - Electrical **WBS Assessed** 121.04.04.04

Identifier	*Potential Hazard Description*	*Life Cycle Stage*	*Who is at risk?*	*What is at risk?*	*Pre-Mitigation Severity*	*Pre-Mitigation Probability*	*Pre-Mitigation Risk Score*	*Mitigations*	*Post-Mitigation Severity*	*Post-Mitigation Probability*	*Post-Mitigation Risk Score*	*Mitigation Action*	*Status of Implementation*	*Comments*
	Exposure to Line Voltage during maintenance/repairing/testing equipment	Multiple	Personnel working on electrical equipment		High	C - Possible	2 - Serious	Add safety disconnects to major power loads with viewing windows, voltage indicators, and test points (AD- EE guidelines)	High	E - Rare	4 - Minor	No Action Required	Implemented	
	Cable failure/fire due to incorrect specifications	Multiple	Personnel in enclosures		Medium	C - Possible	3 - Moderate	Generate list of standard cables and connectors, as well as a cable criteria document. Layout cable selection criteria (e.g. vw-1 rating, tray ratings, voltage ratings)	Medium	E - Rare	4 - Minor	No Action Required	Implemented	
	Improperly grounded equipment	Multiple	Personnel in enclosures		High	C - Possible	2 - Serious	Install ground (trunk line with branches to loads/racks/cable tray/piping) with ties to all cable trays/building ground every 100 ft. Install bonding jumpers between splice plates	Medium	E - Rare	4 - Minor	Update Specifications and Interfaces	In Process	
	ARC Flash	Multiple	Personnel working on/near electrical equipment		High	C - Possible	2 - Serious	Cover all exposed voltages (see if feshm covers)	High	E - Rare	4 - Minor	Update Specifications and Interfaces	In Process	
	Stored Energy	Multiple	Personnel working on electrical equipment with stored energy components		High	C - Possible	2 - Serious	Apply warnings for stored energy concerns	High	E - Rare	4 - Minor	Update Specifications and Interfaces	In Process	