

# Job Hazard Analysis

<b>JHA Number</b> 0016-PPD-ELEC	<b>Facility</b> University of Vermont	<b>Date Prepared</b> 12/3/2018	<b>Revision Date</b> 12/7/2021
<b>Approved by</b> BRENNAN, VINCENT		<b>Analysis by</b> ZNAMIEROWSKI, STEPHEN	
<b>Description</b> Replace Battery in Emergency Lighting Fixture			
<b>Smart Tabs</b>			
<b>Related Job Titles</b>	<b>Related Departments</b> * LIFE SAFETY SYSTEMS	<b>Related Locations</b>	<b>Related MSDS</b>
			<b>Training Requirements</b> * JHA-0016-PPD-ELEC Replace Battery in Emergency Lighting Fixture * OSHA Electrical LO/TO Control of Haz Energy 29 CFR 1910.147 * OSHA Electrical Safety - Written Program Update * OSHA Electrical Safety for Qualified Workers - Initial * OSHA Focus Four Hazards

<b>Additional Description</b>
Common sense should be applied when executing any job. We do our best to implement hazard control measures such as engineering controls, administrative controls and personal protective equipment. When the hazard is still present the use of certain PPE may be required for one or more steps but not all of the steps. However, it may be prudent to don all required PPE for the duration of the JHA.

Step/ Area	Task Step Description	Hazards	Control Measure	PPE Required
1	Shut off AC power to emergency light at electrical panel by turning the appropriate circuit breaker to "OFF" position.	Electrical Shock	Ensure that the electrical panel "dead front cover" (covers live electrical parts) is on, If the cover is not in place, and wiring is visible, DO NOT PROCEED. Immediately contact a supervisor. When switching circuit breaker stand to side of panel to limit body exposure to panel.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/175/C/75/EH
2	Lock Out/Tag Out Circuit Breaker	Electrical Shock	Conduct work slowly and deliberately.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/175/C/75/EH

**Job Hazard Analysis Continued**

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<b>Description</b> Replace Battery in Emergency Lighting Fixture			

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3	If the emergency/exit light has an AC indicator light on the exterior, verify that AC power is off.	None	If the indicator light indicates that the AC power is still on, do not proceed and immediately call your supervisor.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/175/C/75/EH
4	If the emergency/exit light indicator (see step 3) indicates that the AC power is off (or if the fixture does not contain an external indicator), proceed to remove cover to open emergency/exit light.	Electrical Shock	Conduct work slowly and deliberately. Once the fixture cover is opened, conduct a visual inspection, if there are damaged or exposed wires or circuit board is loose, install cover and notify Supervisor.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/175/C/75/EH
5	Verification that AC power is off.	Electrical Shock	Test voltage tester on an receptacle outlet on the hot wire slot (small terminal) to verify meter is working. Then use electrical voltage meter to verify that AC power is off. If meter indicates that AC power is on, install cover and call supervisor immediately	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/175/C/75/EH

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6	If AC power was verified to be off (see step 5), change battery.	None	Remove positive and negative connections to the battery (avoid letting the connections contact each other). Conduct work slowly and deliberately. Install new battery. If lights come on, step 8 is not necessary.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/1/75/C/75/EH
7	Reinstall cover to Emergency/Exit Light	None, gloves can be removed if needed for dexterity.	Conduct work slowly and deliberately.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/1/75/C/75/EH
8	Turn circuit breaker to "ON" position and test the light/battery.	Electrical Shock	Turn circuit breaker to "ON" position to test the light. When switching circuit breaker stand to side of panel to limit body exposure to panel. If light does not come on when circuit breaker is switched to "ON" position, cycle breaker to "OFF" position and then back to "ON" position. If light fails to come on at this point notify your supervisor.	Earplug, electrical (NFPA70E E.A.R. 370-2000) NRR22; Undergarments (non-melting natural fiber) employee owned; Pants, UVM Issued 4 cal/cm2; Shirts, UVM Issued 4 cal/cm2; Gloves, leather (802727); Safety glasses, UVM Issued; All Leather boot/shoe ASTM F2413-17 M or F/1/75/C/75/EH

Prepared By: \_\_\_\_\_

Date: \_\_\_\_\_