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| **Project:** | **Date:** |
| **Project Number:** | **Revision:** |
| **Created By:** | **EIC/Student Qualified Electrical Worker?**  ** Yes  No** |
| **Advisor:** | **Advisor Approval:** |
| **EIC Supervisor:** | **EIC Supervisor Approval:** |
| **Energized Work?**  ** Yes  No** | **If yes, Safety Representative Approval:** |
| **First Time Energization Review:**  *Experiment set up must be reviewed prior to initial energization.* | **Date:** |

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| 1. **Purpose** |
| *Briefly describe the purpose or intent of this work* |
| 1. **Outline of Method and Scope of Work** |
| *Describe in some detail the method or technique you plan to perform.*  **Energized Work Justification:** |
| 1. **Laboratory Equipment and Materials** |
| *List any necessary lab equipment, chemicals, etc. needed to perform the task. Be specific as to the equipment voltage and current levels, shock risk assessment, arc flash risk assessment.*  Equipment:  Materials: |
| 1. **Drawings, schematics, sketches, etc.** |
| *Insert a drawing or schematic of the entire process to illustrate all components, connections, and building tie-ins.* |
| 1. **Protection System** |
| *List expected short circuit current values and the overcurrent protection plan and devices.* |
| 1. **Hazards Assessment** |
| *Briefly describe the hazards that you should be aware of in the performance of this task, and special precautions that many be needed.*  Risk Assessment:  Shock Hazard Risk Assessment:  *Voltage, Limited and Restricted Approach Boundary, Limited Approach Boundary, shock PPE*  Arc Flash Risk Assessment:  *Incident Energy at the working distance, arc flash boundary, arc flash PPE*  Stored Energy Sources:  Other: (chemical, mechanical, etc.)  Error Traps:  (work stress, high work load, time pressure, first time task, etc.) |
| 1. **Hazard Mitigation and Reduction Plan** |
| **Boundary Control:**  *Means to restrict access of unqualified personnel, enclosures can be part of this, and shall adhere to EIC barricading policies.* |
| **Lockout Procedure:**  *Procedure should include stored energy controls, disconnecting meaning, establishing an ESWC procedures, and voltage verification procedures.* |
| **Voltage Verification Test Equipment:** *Ex. Fluke 87 handheld multimeter, Fluke 115 handheld multimeter* |
| **Protective Equipment**  Shock PPE:  Arc flash PPE:  Other: |
| Other hazard mitigation and reduction techniques: *Ex. Thermal, chemical, rotating shaft, etc.* |
| 1. **Emergency Procedures** |
| *In the event of equipment failure resulting in shock, arc flash, injury, fire or any other unexpected hazardous condition, list what actions will be taken and the individual to be contacted.* |
| 1. **Procedure (a Step-by Step description of work to be done)** |
| *DESCRIBE STEP BY STEP your process as if you were writing a recipe or instruction for a person unfamiliar with the work.* ***More detail*** *is better than less, here. Include set-up, operation, take down, and clean-up steps if applicable. Define how and where (e.g., in the fume hood) materials are transferred from their original containers during the process. Feel free to reference any process drawings or schematics you’ll create for inclusion in* ***Section VI*** *above.* |
| 1. **Experiment Measurements and Data Collection** |
| *Ex. Multimeter with alligator clips for semi-permanent measurements* |
| 1. **Stop Work Criteria and Process Change Triggers** |
| *Examples: change of equipment single-line diagram, change of nominal voltage outside of original plan, other change that make this procedure invalid and in need of re-review* |
| 1. **Decommissioning and/or Close Out Plan (if applicable)** |
| *Considerations for where test setup will go once project is completed - if any equipment will be disposed of, sent to surplus, long-term storage,* |
| 1. **Authorized Users** |
| *Record acknowledgements that the SOP has been read and understood.*  **Authorized Users:**  I have read this test procedure, understand the contents, have been trained on implementing the contents, have completed a job safety briefing with the EIC supervisor, and will utilize this procedure without exception.  EIC Supervisor approval signature is confirmation that they have conducted a job safety brief with the individual, verified they have working understanding of the project and the associated hazards, and provides a record of qualification for this project.   |  |  |  |  | | --- | --- | --- | --- | | **Name (PRINT)** | **Signature:** | **Date:** | **EIC Supervisor Approval:** | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  |   **\*EIC Supervisor must authorize any additional students to work on the project.** |

**Revision History**

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| Revision | Date | Summary of change | Author | Approver |
| A | 01/09/2020 | Initial issue | Nancy LaFlair | J. Curtiss Fox |
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