



## Electrical Systems Approval Form For use at Argonne National Laboratory

### SECTION 1 - EQUIPMENT DATA:

Division: <input style="width: 90%;" type="text"/>	Responsible Person: <input style="width: 90%;" type="text"/>
System Name: <input style="width: 90%;" type="text"/>	Date Built: <input style="width: 20%;" type="text"/> Date last modified: <input style="width: 20%;" type="text"/>
Manufacturer: <input style="width: 90%;" type="text"/>	Number of pieces of equipment: <input style="width: 20%;" type="text"/>
Equipment Location: Building: <input style="width: 20%;" type="text"/> Room: <input style="width: 20%;" type="text"/>	Label Number: <input style="width: 20%;" type="text"/>

**NOTE: Serial numbers and Argonne property numbers to be recorded in separate database.**

System Description:
Subsystems

### SECTION 2 - HAZARD ASSESSMENT:

Determine all electrical and non-electrical hazards that could injure an employee, including the operation and maintenance workers.

1. Electrical hazard classification	
2. Stored electrical energy in capacitors (E and V)	
3. Batteries, including UPSs	
4. Electromagnetic fields produced (dc to 300 GHz, pulsed)	
5. Infrared, optical and ultraviolet	
6. X-Rays	
7. Heat and sparks	
8. Acoustical energy	
9. Stored mechanical energy	
10. Other (chemical, high pressure, cryogen, water, etc.)	

**SECTION 3 - EVALUATION FOR OPERATION:**

Determine that electrical equipment is free from recognized hazards that are likely to cause death or serious physical harm to employees during system operation [29 CFR 1910.303 (b)].

Approve

1. Enclosure, isolation. No exposed hazardous energized conductors, no unused openings.	<input type="checkbox"/>
2. Grounding. All conductive enclosures exposed to personnel are properly grounded.	<input type="checkbox"/>
3. Overcurrent protection. Provision for overload, ground fault and short circuit protection.	<input type="checkbox"/>
4. Failure analysis. Adequate electrical and fire protection systems for failure modes.	<input type="checkbox"/>
5. Operation safety analysis and controls documented.	<input type="checkbox"/>
6. System is labeled as approved.	<input type="checkbox"/>
7. Other - explain.	<input type="checkbox"/>

**SECTION 4 - EVALUATION FOR WORKING ON SYSTEM:**

Determine that engineering methods are implemented to safely enter into and work on the system.

1. Methods of energy isolation (e.g., plug control, LOTO, Kirk key).	<input type="checkbox"/>
2. Automatic methods of stored energy removal.	<input type="checkbox"/>
3. Proper design for the manual removal and/or verification of capacitively stored energy.	<input type="checkbox"/>
4. Documentation for entry and work on system.	<input type="checkbox"/>

**NOTE: SYSTEM SHALL BE INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE DESIGNER/BUILDER.**

Comments/conditions of use: (Include all designer/builder instructions, restrictions on use, drawings or information that is relevant to the safe installation and use of this equipment.)

- This system and its associated electrical equipment is approved for installation and use at Argonne.
- This system is rejected for use at Argonne. (See comments above)
- This system has been removed from service at Argonne.

**IF THIS SYSTEM IS MODIFIED, DAMAGED OR REPAIRED IN A MANNER THAT AFFECTS SAFETY, THIS APPROVAL IS VOID, PENDING RE-EXAMINATION.**

Inspection Date:	Inspector (Name):	Inspector (Signed):
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**SECTION 5 - SPECIFIC TESTS PERFORMED FOR APPROVAL:**

List tests performed relevant to safety. This primarily applies to new systems.

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**SECTION 6 - IMMEDIATE IMPROVEMENTS**

Required modifications (with a due date) and compensatory measures taken in the meantime.

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