



# DAMAGED ELECTRICAL EQUIPMENT

Electrical equipment is considered damaged when, if used, the condition of the equipment could cause injury to personnel or further damage to the equipment. Damage to electrical equipment may be caused by fire, a steam leak, blunt force, collision, battle damage, etc.

## **B** ELECTRICAL HAZARDS POSE A RISK TO EVERYONE, REGARDLESS OF RATE.

**L** When working on electrical equipment or circuits that have been damaged, isolate the area by erecting barriers and observe the general electrical safety requirements of NSTM 300, paragraph 300-2.3. Follow the requirements for maintenance of energized circuits of paragraph 300-2.4.2 until it is tagged out per S0400-AD-URM-010/TUM, and verified that all portions of the circuit, including exterior of electrical enclosures, are isolated and de-energized.

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NAVSAFECOM has identified overall lack of adherence to fundamental policy, program structure and functional areas of responsibility.

Common mistakes found include:

- Lack of Personal Protective Equipment (PPE)
- Failure to understand proper tag out procedures
- No safety observer present or not CPR qualified
- Failure to perform initial voltage verification (IVV) to identify if electric current is present in the work area
- Missing protective equipment to secure "live" cables or wires while work is in progress or awaiting repair



## NAVSAFECOM RECOMMENDS THE FOLLOWING ACTIONS:

- **Energy Control Procedures:** Before repairs, obtain authorization, conduct safety briefings, ensure all personnel are qualified and aware of hazards and identify and isolate energy sources.
- **Lockout/Tags-Plus Requirements:** Use locks to prevent energy startup. If unable to use locks, implement a tags-plus system to control hazardous energy.
- **Maintenance Log:** Maintain a detailed log for each lockout/tags-plus system, including location, equipment serviced, personnel involved, and application/removal dates.
- **Shutdown Procedures:** Follow established written shutdown procedures to safeguard personnel from hazardous energy risks.
- **Energy Isolation:** Minimize work on energized equipment, de-energize by opening circuit breakers, positioning switches, and removing fuses and ensure tags are securely attached to energy-isolating devices.
- **Removal Procedures:** Notify affected personnel before removing lockout/tags-plus systems. Ensure machinery is intact and only authorized personnel remove locks/tags-plus.
- **Startup Procedures:** Prior to startup, inform personnel of hazards and control measures. Clear tools and non-essential personnel from the area. Follow written procedures to minimize hazards during startup.
- For full compliance with 29 CFR 1915.89, refer to the complete regulation for detailed requirements and additional safety measures.



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