Toolbox Talk Training: Basic Electrical Safety – Don't Use Electrical Tape to Repair / Splice Cords

It might seem reasonable to assume that electrical tape could be used to fix a frayed or damaged power cord, or even to join two cord sections together—after all, it is called "electrical tape." However, electrical safety standards do not permit the use of electrical tape for repairing damaged flexible cords or for splicing cords together.

When cords must be repaired or replaced A flexible electrical cord must be taken out of service and properly repaired or replaced when:

● The outer jacket is deeply cut, worn, or damaged. The damage is severe enough that the cord bends unevenly or exposes internal components.

● The internal conductors or their insulation are damaged or exposed In these cases, wrapping the cord with electrical tape is not an acceptable repair. Why electrical tape is not an approved repair method requires that flexible cords be "approved," meaning they must maintain the design and construction standards established by the manufacturer. That approval is based on the cord's original materials, strength, and flexibility. Using electrical tape can change the way the cord behaves. It may:

● Alter flexibility and create stress points near the repair. Fail to restore the original protective insulation.

● Compromise the intended performance of the grounding conductor. Reduce the overall integrity of the cord's outer jacket Because of these factors, tape repairs do not restore the cord to its original safe condition. How flexible cords can be spliced:

● Smaller-gauge cords (below 12-gauge) must not be spliced at all.

● Larger-gauge cords (12-gauge or heavier) may only be spliced using approved methods that preserve the cord's original insulation, protective covering, and performance characteristics Simply wrapping a splice with electrical tape does not meet these requirements and does not provide an equivalent level of safety. When splicing is necessary, it must be done using approved splice kits and performed by a qualified person, such as a licensed electrician. Proper action for damaged cords If you find a damaged or unsafe electrical cord:

● Do not tape it. Do not attempt to splice it yourself. Remove it from service immediately.

● Report it to your supervisor, maintenance personnel, or safety representative The cord can then be properly repaired using approved methods or replaced if needed.

Are there any questions or comments about today's discussion on damaged or spliced electrical cords? Thank you for attending today's toolbox talk. Please remember to sign the training certification form to receive credit for your participation.

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TOOLBOX TALK TRAINING CERTIFICATION FORM

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