

What's Wrong with this Picture?

"I Am Only Verifying Voltage Is Off"



by Tony Demaria
Tony Demaria Electric, Inc.



Question:

A technician has opened the breaker on the test panel feeding a 2300 V 3600 HP vertical motor being run for test purposes.

The technician is using a voltage detector to test for absence of voltage. What is wrong with this picture?

Disclaimer:

Test shown on the picture was done for training purposes only. The circuit was de-energized using all proper procedures and PPE prior to photograph. ⚡

Tony Demaria served an IBEW Apprenticeship starting in 1963 and then worked for Los Angeles Department of Water and Power in substation maintenance for eight years. He has owned and operated Tony Demaria Electric for over 25 years, specializing in maintenance and testing switchgear and large motors for industrial facilities. Tony Demaria Electric is a NETA Full Member company, and Tony serves on the NETA Safety Committee.

Fall 2004 Answers

- Limited approach boundary should be posted at 5 ft.
- Technician is working inside the restricted approach boundary and must be "Qualified" and be wearing class 2 (or greater) rubber safety gloves.
- Class E rated hard hat has stickers.
- Sign posted on other side of door so no one enters the area.
- Level 3 flash protection (Note 1) is required for this task. This includes:
 - 25 cal/cm² flash suit with hood
 - Leather gloves and shoes
 - Hearing protection.

Note 1 – level 3 protection may be determined with NFPA 70E equations, an arc-flash calculator, or from table 130.7(c)(9)(a) of 2004 NFPA 70E. Any method will give you the same answer.

