CHANCE
LINEMAN GRADE TOOLS™

ARE YOU MAKING THE GRADE?

DO YOU KNOW...

- Per OSHA 1910.269(n)(3) the employer must be able to demonstrate that its temporary protective grounds are "placed at such locations and arranged in such a manner [that they will] prevent each employee from being exposed to hazardous differences in electrical potential."
- In 2014 OSHA 1910.269 Appendix C was modified to include guidelines for how employers can comply with 1910.269(n)(3).
- Per OSHA 1910.269 Appendix C Section III, for employees working on deenergized and grounded power lines, the employer must make an engineering determination that its grounding practices do not expose employees to hazardous differences in electrical potential **or** follow the acceptable methods of grounding specified in Section III.D.2.
- Per OSHA 1910.269 Appendix C Section III.D.2 acceptable methods of grounding for employers that do not perform an engineering determination must comply with the following:
    - Maximize the fault current with a low impedance connection to ground to ensure the circuit opens in the fastest available clearing time. (Refer to Section III.D.2.i)
    - Bond all conductive objects in the work area to minimize differences in potential.
        - For wood poles the employer must either: "(1) Provide a conductive platform, bonded to a grounding cable, on which the worker stands or (2) use cluster bars to bond wood poles to the grounding cable."
            - "The employer must ensure that employees install the cluster bar below, and close to, the worker's feet."
            - "...it is important that the cluster bar be in conductive contact with a metal spike or nail that penetrates the wood to a depth greater than or equal to the depth the worker's climbing gaffs will penetrate the wood."

OSHA 1910.269 APP C SECTION III.D.2.II:

"Wood poles are conductive objects. The poles can absorb moisture and conduct electricity, particularly at distribution and transmission voltages. Consequently, the employer must either: (1) Provide a conductive platform, bonded to a grounding cable, on which the worker stands or (2) use cluster bars to bond wood poles to the grounding cable. The employer must ensure that employees install the cluster bar below, and close to, the worker's feet. The inner portion of the wood pole is more conductive than the outer shell, so it is important that the cluster bar be in conductive contact with a metal spike or nail that penetrates the wood to a depth greater than or equal to the depth the worker's climbing gaffs will penetrate the wood. For example, the employer could mount the cluster bar on a bare pole ground wire fastened to the pole with nails or staples that penetrate to the required depth. Alternatively, the employer may temporarily nail a conductive strap to the pole and connect the strap to the cluster bar."

See OSHA 1910.269 Appendix C and OSHA 1926 Subpart V Appendix C for full guidelines on step and touch potential and equipotential grounding for metal structures, wood poles and underground.

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DO YOU ALSO KNOW...

- Chance temporary grounding equipment has been used since 1937 and Chance Grounding Cluster Bars have been used for more than 45 years.
- Current Chance Cluster Bars can be used to comply with OSHA guidelines by bringing them into conductive contact with a metal object, such as a spike, nail, screw, bare pole ground with staples, etc., that sufficiently penetrates the wood pole.
- Chance Cluster Bars with integral pole-penetrating option are now available (T6001549A & C6000152A); retrofit kits are also available (T6001549AR & C6000152AR).
- Chance trainers offer Equipotential Grounding Seminars and field training.

Penetrating Cluster Bar, 6" (T6001549A)

Penetrating Cluster Bar, 11" (C6000152A)

Current Chance Cluster Bar (T6001549) in conductive contact with bare pole ground with staples

LET THE CHANCE GROUNDING EXPERTS HELP YOU MAKE THE GRADE!

Hubbell has a policy of continuous product improvement. Please visit hubbellpowersystems.com to confirm current design specifications.

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