

Two forty-amp fuses protecting fifteen-amp receptacles. A GFCI that would not trip.

10 MIN

NFPA 70E Art. 110 · NFPA 70 (NEC) temporary installations

Wisconsin FACE 93WI214

WHAT HAPPENED

1993 · Wisconsin · Residential electrical contracting · 45-year-old self-employed electrician

A self-employed electrician was wiring a house under construction, drilling holes in overhead basement joists with a half-inch metal-cased electric drill. The drill was fed from a temporary construction power pole through three chained extension cords — two missing their grounding pins, one with about half an inch of outer insulation gone at each end. After heavy rain, the outdoor cord ends were lying in puddles of water and mud, and there was standing water on the basement floor where he worked. The cords were plugged into a GFCI receptacle on the pole that had been inspected and certified to local code. He was found face down on top of the drill. Post-incident testing showed the GFCI would not trip, and the fuse box serving the 15- and 20-amp receptacles held two 40-amp fuses.

WHY IT HAPPENED

The temporary service was certified but never tested. The GFCI was inoperative and the overcurrent protection was grossly oversized, so nothing was protecting a metal tool fed through damaged, ungrounded cords in standing water.

WHAT THE STANDARD REQUIRES

- Test GFCIs on a schedule. A certificate of inspection is not a test result.
- Temporary construction power meets the same code as permanent — including correct overcurrent protection.
- Keep cord ends up out of water and mud. Inspect the jacket and the ground pin every time.
- Maintain cords, plugs, receptacles, and tools under a preventive maintenance program.

TALK ABOUT IT — DO NOT SKIP THIS PART

1. Who tested the GFCIs on our temporary power, and when? Can we prove it?
2. Walk the site in your head — where are cord ends sitting in water right now?
3. Somebody put 40-amp fuses in that box on purpose. Why do people do that, and does it happen here?

WHAT WE WILL DO DIFFERENTLY HERE

ATTENDANCE

PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE