

Chippewa Valley Electric Cooperative

Safety First - Farm Rewiring Program Guidelines

The (National Electric Code) **NEC must be followed.**

The following issues are required to participate in the Safety First Program –

1. Check all pole-top switch installations – replace all Midwest pole tops
2. Only 1 (one) service to the barn is allowed
3. Over-current protections are required for all underground services/feeders on each end.
 - (a) 100 amp, grade level installations, not meeting fault currents levels, will require a current limiting disconnect
4. The program is intended for rewiring. New wiring for energy-efficient items must be done to code. Wiring for only energy-efficient items is not the intent of the program. If these items are desired they should be installed as a component of a larger rewiring effort in the building where the rewiring is being done.
 - (a) Approved Energy-Efficient Items
 - Heat recovery items
 - In-line coolers (when associated with rewiring of a milk-house or parlor)
 - Energy-efficient lights and timers (Approved: t-8, compact fluorescents, metal halide and high-pressure sodium)
 - Scroll compressors (tank cost and installation is not included)
 - Variable speed drives
 - 3 phase, energy-efficient motors
 - Vendor or contractor labor to install all of the above items
 - (b) Non-Approved Items
 - Water Heaters
 - Well Pumps
 - Energy-free or energy-efficient waterers
 - (c) Safety-Approved Items
 - Single phase motor replacement/repair – only if ID problems with the motor are part of the stray voltage test
5. Labor, if needed, will be paid. (Farmer doesn't qualify for payment – the farmer can do the work, but will not get paid for his services by the program.
6. If wiring in a livestock facility, that building **must** be 4-wired. In addition, if there are any parallel paths (such as waterlines, phone lines, LP lines, etc) to other buildings on the farm then those buildings **must** be 4-wired or the parallel paths must be isolated or broken. These conditions apply sub-bullets below. Electrician should test for and document interconnects. Non-livestock facilities may be covered, but the electrician:
 - (a) Must have 4-wired all other livestock buildings
 - (b) Must install 4-wire service conductors – if rewiring non-livestock facilities:

- (c) For existing non-livestock facilities, maintenance is allowed if the service is properly sized.
- (d) Must install 4-wire conductors – if the service drop is being replaced
- 7. 3-phase conversions from delta to wye are to be strongly encouraged. Allow conversion from single-phase to three phase motors, providing they are energy efficient.
- 8. The removal of all aluminum from livestock facilities is strongly encouraged. The installation of aluminum, in facilities being rewired, is prohibited.
- 9. No loans will be made for installation of isolation transformers, or rings of life or other non NEC approved apparatus.