

Power factor correction capacitor bank annual maintenance checklist

The annual capacitor bank service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against NFPA 70B, NEC (NFPA 70). Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The facility electrician recording the inspection during a planned outage, inspecting cans and connections after discharge while the testing firm performs the electrical tests. When: Once a year during a scheduled shutdown, coordinated with the NETA technician so the bank is locked out, the discharge resistors are given their full time to bleed the cans down, and it's inspected and tested before returning to service.

Isolation and discharge

- ☐ **Bank locked out and cans fully discharged**
Feed isolated, discharge time allowed per the manufacturer before contact, absence of voltage tested at the cans before any work begins. 2 photos required
- ☐ **Discharge resistors inspected**
Discharge resistors or bleed devices confirmed intact and connected, no open or burnt resistor that would leave a can charged. 1 photo required

Cans and connections

- ☐ **Cans, reactors and connections inspected and torqued**
Cans cleaned and checked for bulging or leakage up close, reactor and bus connections checked to torque, no discoloration at the terminations. 2 photos required
- ☐ **Contactors and controller wiring inspected**
Stage contacts checked for pitting and wear, controller sensing wiring and current transformer connections landed tight. 1 photo required

Testing observed and recorded

- ☐ **NETA electrical tests witnessed and logged**
Capacitance and insulation-resistance results from the testing tech recorded per stage, cans reading low or out of range flagged for replacement before re-energizing. 2 photos required