READY TO INSPECT — FIELD CHECKLIST

Panelboard annual maintenance checklist

The annual panelboard 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, torquing and inspecting while the testing firm performs the electrical tests on the panel. When: Once a year during a scheduled shutdown, coordinated with the NETA technician so the panel is locked out and the interior opened while it's dead, then tested before the dead-front goes back on.

Outage planning

- [ ] Outage window and affected circuits agreed with the owner
  Window and critical loads agreed with the owner, occupants warned, every source (generator or solar ties too) on the switching plan, and the utility coordinated where the panel is service equipment.
  No photo required

- [ ] Loaded infrared scan before the outage
  Scan at normal load through the trim door, or with the dead-front off only where the procedure and its permit allow it, each warm lug or breaker marked for the outage.
  1 photo required

- [ ] Breaker handle positions photographed as found
  Every branch handle photographed before switching, including any left off on purpose, so the panel is restored exactly as it was found.
  1 photo required

Isolation and cleaning

- [ ] Panel locked out and verified dead
  Feed isolated upstream, absence of voltage tested at the bus, lockout applied before the interior is exposed.
  2 photos required

- [ ] Interior cleaned and inspected
  Compartment vacuumed clean, bus and insulators free of dust and moisture staining, no evidence of arcing, tracking or pest intrusion.
  2 photos required

Connections and devices

- [ ] Feeder and branch connections checked to torque
  Main lugs, bus connections and branch breaker terminations torque-verified to the manufacturer's value, re-torqued only where found loose, discolored or loose ones noted.
  2 photos required

- [ ] Breakers seated and exercised where appropriate
  Breakers firmly on the stabs, spare and infrequently operated breakers exercised open-to-closed where the maintenance plan calls for it, no cracked cases.
  1 photo required

- [ ] Neutral and ground bars checked for doubled terminations
  Each neutral under its own terminal, ground conductors doubled only where the bar is listed for it, and bar screws torque-verified, re-torqued only where found loose.
  1 photo required

- [ ] Neutral bonding matches the panel's place in the system
  Neutral bonded at the service, or at one point for a separately derived system (its transformer or first disconnect, never both), and isolated in every downstream panel.
  1 photo required

Testing observed and recorded

- [ ] NETA electrical tests witnessed and logged
  Insulation-resistance and any breaker or ground-continuity results from the testing tech recorded against the panel, anything out of range flagged before re-energizing.
  2 photos required
- [ ] Main breaker test results recorded where one is fitted
  Where the panel has a main breaker, the testing firm's trip timing and pole resistance recorded and checked against the manufacturer's published curve and the study.
  No photo required
- [ ] Results and open deficiencies sent to the owner
  Written results compared with the last outage, deficiencies still open and the as-left condition delivered to the owner for the owner or engineer to accept.
  No photo required

Return to service

- [ ] Gutters cleared and dead-front refastened
  Nothing left in the gutters or on the bus, every filler plate and dead-front screw back in, and each lock and tag removed by the person who applied it.
  1 photo required
- [ ] Panel re-energized and breakers set back as found
  Feeder closed in the agreed order, phase voltage confirmed at a meter or under the energized-work procedure, and each branch handle returned to its as-found photo.
  1 photo required
- [ ] GFCI and AFCI breakers tripped with their test buttons
  Where the panel has ground-fault or arc-fault breakers, each tripped by its test button and reset after energizing, with users of those circuits warned first.
  No photo required