READY TO INSPECT — FIELD CHECKLIST

Power distribution unit quarterly maintenance checklist

A quarterly power distribution unit round is short on purpose: it catches the wear items that fail between annual services. This checklist is sized for a tech with a phone. Every item says what to look at and the photo that proves the round happened. Work is commonly verified against NFPA 70B, NEC (NFPA 70). Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The electrician or facilities tech on the quarterly electrical round. When: Every quarter, energized, catching load imbalance and hot connections before they turn into an outage on the loads downstream.

Approach and labeling

- [ ] Nameplate ratings and arc-flash label read on the front
  Nameplate kVA, input and output voltages and main breaker rating readable for the load checks, arc-flash label legible, a missing or faded one reported to the owner.
  1 photo required

- [ ] Emergency power off guard and label checked where fitted
  Guard in place and unbroken, label legible naming what it shuts down; the button is never pressed to test it, since it drops every load at once.
  No photo required

Status and load

- [ ] Front-panel status and alarms read
  Metering display active, no standing alarms or fault flags, input and output within the unit's normal indication.
  1 photo required

- [ ] Per-phase load checked for balance
  Each phase read at the metering, not just the total, imbalance between phases noted for follow-up.
  1 photo required

- [ ] Highest phase current compared with the nameplate ratings
  Most loaded phase on the metering display compared with the main breaker rating and the transformer rating where fitted, loading close to either reported to the owner.
  1 photo required

- [ ] Output voltage and neutral current read on the display
  Output voltage on each phase within the nameplate range and neutral current noted where the display shows it, a neutral running high against the phases flagged.
  1 photo required

- [ ] Branch circuit monitoring alarms reviewed where fitted
  Each branch threshold set against its breaker rating, no branch in high or overload alarm, and alarm history read for circuits creeping up since the last round.
  No photo required

- [ ] Input source and transfer status read on dual-input units
  Both sources shown available, the static transfer switch on its preferred source, and any transfers since the last round read from the event log.
  No photo required

Cooling and enclosure

- [ ] Cooling fans and filters checked
  Fans running, intake filters and louvers clear, air moving through the section with no hot-smell or discoloration.
  1 photo required

- [ ] Branch breaker positions verified
  Breaker on/off state and labeling matched against the panel schedule, nothing tripped or fed from an undocumented position.
  1 photo required

- [ ] Output cable entries and strain relief checked
  Output cables or conduits leaving the unit secured at their entries, bushings and strain relief in place, nothing pulled tight or chafed on an enclosure edge.
  1 photo required

Thermal scan

- [ ] Energized-work controls in place before the thermal scan
  Covers removed only as the site's energized-work procedure allows, or scanned through IR windows, by a qualified person in PPE from its arc-flash risk assessment.
  No photo required
- [ ] Connections scanned under load with the thermal camera
  Breakers, lugs and bus joints imaged while energized, any warm connection flagged against its phase mates on the same load.
  2 photos required

Close-out

- [ ] Covers refastened and front door latched after the scan
  Every cover or dead-front taken off for the scan refastened with all its screws, front door closed and latched, nothing left inside the unit.
  1 photo required
- [ ] Phase loading and alarms reported to the owner
  Per-phase currents, the most loaded phase, branches near their rating and any alarms sent to the owner, naming loads that could move to even the phases.
  No photo required