

Company Name: _____

Maintenance Forms & Logs

Date: _____

Log ID: _____

Version: 1.0

NFPA 110 Emergency Generator Load Bank Testing Log

1.0 Form Objective & Asset Scope

This log is used to document periodic load bank testing of emergency generators as required by NFPA 110. The test verifies the generator's ability to sustain rated load, checks cooling and exhaust systems, and validates automatic transfer switch operation. Proper completion ensures compliance with life safety codes and supports asset reliability in critical facilities such as hospitals, data centers, and industrial plants.

2.0 Administrative & Asset Details

Date: _____

Technician Name: _____

Generator ID / Asset Tag: _____

Generator Make & Model: _____

Hour Meter Reading (Start): _____

Hour Meter Reading (End): _____

Load Bank Type (Resistive / Inductive / Combination): _____

Test Duration (Minutes): _____

3.0 Inspection / Parameter Checklist

- ☐ Pass ☐ Fail - Verify generator starts and reaches rated speed within 10 seconds.
- ☐ Pass ☐ Fail - Record steady-state voltage (L-L and L-N) at 25% load.
- ☐ Pass ☐ Fail - Record steady-state frequency at 50% load.
- ☐ Pass ☐ Fail - Monitor coolant temperature at 75% load (do not exceed OEM limit).
- ☐ Pass ☐ Fail - Check oil pressure at 100% load (within OEM spec).
- ☐ Pass ☐ Fail - Inspect exhaust system for leaks and excessive heat.
- ☐ Pass ☐ Fail - Verify automatic transfer switch (ATS) operation during load transfer.
- ☐ Pass ☐ Fail - Record ambient temperature and humidity at test start.
- ☐ Pass ☐ Fail - Inspect fuel supply system for leaks and adequate fuel level.
- ☐ Pass ☐ Fail - Check battery voltage and charger output during test.
- ☐ Pass ☐ Fail - Verify all alarms and shutdowns function correctly (low oil, high temp, overspeed).

☐ Pass ☐ Fail - Record maximum load applied (kW) and duration at each load step.

4.0 Deficiencies & Work Order Generation

Issue Description (e.g., voltage drop, coolant leak, ATS failure): _____

Observed Parameter (e.g., voltage reading, temperature, pressure): _____

Corrective Action Taken: _____

Parts Required (include part numbers if available): _____

Work Order Number (if generated): _____

Follow-up Date / Re-test Required: _____

5.0 Sign-off & Return to Operations

Maintenance Technician Signature: _____ Date: _____

Reliability Manager Review: _____ Date: _____

Facility Manager Approval (if deficiencies noted): _____ Date: _____

Regulatory Disclaimer: This maintenance log is a generic template. The end-user assumes all liability for validating all inspection parameters, PM frequencies, and tolerances against specific OEM machinery manuals before active shop floor deployment.