



Electrical Maintenance Gap Analysis

Based on NFPA 70B

In 2023, NFPA put a permanent spotlight on electrical equipment maintenance as one of the primary foundations for electrical safety when it transitioned *NFPA 70B* from *Recommended Practice* to the *Standard for Electrical Equipment Maintenance*.

Maintenance is a critical part of the life cycle of equipment and can have a direct impact on electrical safety. The *NFPA 70B* establishes a baseline for crucial maintenance tests and intervals, based on the equipment condition evaluation. It also outlines what a Maintenance Program should include.

A *Maintenance Gap Analysis* offers management insight into where it stands on the maintenance lifecycle. It can help jump-start the implementation of an Electrical Maintenance Program or find gaps in existing policies. Additionally, it can identify procedures that are working well and can serve as a model for other areas.

Maintenance Documentation Analysis

Ideal for companies already proactively performing electrical equipment maintenance activities, but not necessarily aligned with NFPA 70B. Procedures and records exist, but may need a written Electrical Maintenance Program (EMP).

- Review documents provided by the company, including:
 - ✓ Electrical Maintenance Program (if one exists)
 - ✓ Electrical Safety Program (for maintenance references only)
 - ✓ Written maintenance procedures
 - ✓ Equipment manufacturers' instructions (as provided)
 - ✓ One-line drawings
 - ✓ Maintenance records
 - ✓ Training records
- Evaluate current maintenance approach and alignment to industry standards from a record and policy perspective.

Deliverable: Checklist identifying existing efforts, highlighting any issues, and offering recommendations for bringing maintenance efforts into compliance with NFPA 70B.

Essential Maintenance Gap Analysis

Tailored to companies with qualified personnel and where maintenance procedures are established and performed. It will evaluate existing activities and policies for compliance and provide guidance to align to NFPA 70B.

- Includes *Documentation Analysis*
- Site visit to discuss maintenance activities with personnel and evaluate representative equipment.
- Develop a clear picture of the state of maintenance and strategies for compliance.

Deliverable: Concise report on current maintenance practices, identified gaps, and strategies for advancing NFPA 70B compliance.

Comprehensive Maintenance Gap Analysis

Suited for companies without maintenance strategies in place and looking for guidance on how to achieve compliance with NFPA 70B. The scope of work is tailored to client's needs.

- Documentation Review
- Multiple day site visit will include key personnel discussions, cataloging of electrical assets and evaluating equipment conditions for determining maintenance intervals.
- Develop a detailed view of electrical assets and condition; identify policy and practice components needed to bring company into NFPA 70B compliance.

Deliverable: Detailed roadmap that can serve as the foundation for establishing an Electrical Maintenance Program and procedures.

Electrical Maintenance Gap Analysis

NOTE: All hours are for example purposes; scope of work will determine actual hours

OPTIONS	Documentation Analysis	Essential Gap Analysis	Comprehensive Gap Analysis
Scope of Work	Snapshot of existing maintenance efforts and gaps based on documentation	Snapshot of existing maintenance, field comparison, and recommendations to achieve NFPA 70B Compliance	Complete picture of existing equipment and activities, with detailed solutions to achieve NFPA 70B Compliance
Initial Consultation	1 hour	1.5 hours	2 hours
Policy Review	10-12 hours	10-12 hours	TBD
Scope/purpose of electrical safety documents review:	Snapshot of existing documentation	Snapshot of existing documentation for on-site comparison	Evaluation
Documents for review (as available):			
o Electrical Maintenance Program (EMP)	✓	✓	✓
o Maintenance Procedures	✓	✓	✓
o One-Line Drawings	✓	✓	✓
o Maintenance Relevant Sections from Written Electrical Safety Program (ESP)	✓	✓	✓
o Applicable Maintenance Records	✓	✓	✓
o Training Records	✓	✓	✓
o Manufacturers' Instructions (as provided)	✓	✓	✓
On-Site Visit	--	~1 day	TBD
Maintenance Team Discussions		1.5 hour	3 hours
Scope of Discussions		Group discussion	Group discussion and individual interviews
Equipment Survey		6 hours	Minimum 20 hours
Equipment Count		TBD	ALL
Scope of equipment observed		Representative	Comprehensive
Condition evaluation		Overview	Specific
Outcomes			
Data Compilation and Recommendations	2-4 hours	~ 8-10 hours	TBD
Conference call discussing findings	1 hour	1 hour	2 hours
Scope of reporting	Compliance Checklist	Current State and Compliance Recommendations	Current State and Detailed Recommendations
Example Time Estimates	~16 hours (2 days)	~30 hours (4 days)	~48 hours (6 days)