

Company Name: _____

Health & Safety Forms & Logs

Date: _____

Log ID: _____

Version: 1.0

NFPA 70E Arc Flash Risk Assessment Boundary Template

1.0 Form Objective & Regulatory Context

This Arc Flash Risk Assessment Boundary Template is designed to document the mandatory risk assessment required by NFPA 70E Article 130.5. It ensures that all energized electrical work is preceded by a documented shock and arc flash risk assessment, including the calculation of incident energy levels and the establishment of approach boundaries. This form satisfies the recordkeeping requirements of NFPA 70E and aligns with WorkSafeBC Part 19 (Electrical Safety) for industrial and manufacturing shop floors.

The template provides a structured method to record equipment details, system parameters, calculated boundaries (Limited, Restricted, Prohibited Approach, and Arc Flash Protection Boundary), required PPE, and authorization. Use this form for every energized work task or when verifying existing arc flash labels.

2.0 Administrative Details

Date of Assessment: _____

Time of Assessment: _____

Facility / Location: _____

Equipment ID / Panel Name: _____

Nominal System Voltage (V): _____

Available Fault Current (kA): _____

Clearing Time (cycles / seconds): _____

Arc Flash Label Present? (Yes / No): _____

Label Incident Energy (cal/cm²) if available: _____

Assessor Name / ID: _____

Assessment Method (e.g., IEEE 1584, NFPA 70E Table Method): _____

3.0 Audit / Inspection Items

- ☐ Pass ☐ Fail - Verify equipment is de-energized or a valid energized work permit is issued.
- ☐ Pass ☐ Fail - Confirm system voltage and available fault current data is from up-to-date engineering study.
- ☐ Pass ☐ Fail - Calculate or reference the Arc Flash Protection Boundary distance (inches or feet).
- ☐ Pass ☐ Fail - Calculate or reference the Limited Approach Boundary (for shock protection).
- ☐ Pass ☐ Fail - Calculate or reference the Restricted Approach Boundary (for shock protection).
- ☐ Pass ☐ Fail - Calculate or reference the Prohibited Approach Boundary (for shock protection).

- ☐ Pass ☐ Fail - Determine incident energy level (cal/cm²) at the working distance.
- ☐ Pass ☐ Fail - Select appropriate Arc Flash PPE category based on incident energy (Cat 1-4 or specific cal/cm² rating).
- ☐ Pass ☐ Fail - Verify that all required PPE (arc-rated clothing, face shield, gloves, etc.) is available and in good condition.
- ☐ Pass ☐ Fail - Ensure that the boundary distances are clearly marked or posted at the equipment location.
- ☐ Pass ☐ Fail - Confirm that all workers entering the boundaries have received appropriate training per NFPA 70E 110.2.
- ☐ Pass ☐ Fail - Document any changes in system configuration that may affect the assessment (e.g., transformer tap changes, new loads).

4.0 Corrective Actions & Deficiencies

Issue Description (e.g., missing arc flash label, incorrect boundary data):

Immediate Action Taken (e.g., barricade area, update label): _____

Root Cause (if known): _____

Corrective Action Required (e.g., re-engineering study, install new label):

Assigned To: _____

Due Date: _____

Status (Open / In Progress / Closed): _____

5.0 Sign-off & Authorization

Qualified Electrical Worker Signature: _____ Date: _____

Safety Manager / Supervisor Signature: _____ Date: _____

Electrical Engineer (if assessment is new or revised) Signature: _____ Date: _____

Date of Sign-off: _____ Date: _____

Regulatory Disclaimer: This audit log is a generic safety template. The end-user assumes all liability for validating all inspection parameters against WorkSafeBC, OH&S, and specific equipment manuals before active shop floor deployment.