BPFI Fire Door Best Practice Guide

Version 1.0 — May 2026

Document Type	Industry Best Practice Guidance
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Region	New Zealand
Status	Version 1.0 Draft

Practical guidance for fire door inspections, repairs, smoke control, lifecycle management and compliance within existing New Zealand buildings.

Introduction

Fire doors form a critical part of passive fire protection systems within buildings. Their purpose is to assist in containing fire and smoke, protecting escape routes and supporting the compartmentation strategy of the building.

Why This Guide Exists

Existing buildings throughout New Zealand contain thousands of ageing fire door systems with varying construction methods, undocumented modifications, historic repairs and inconsistent maintenance history.

This guide has been developed to support:

- Practical inspection methodologies
- Defect classification consistency
- Repair versus replacement assessment
- Smoke-control management
- Structured repair evidence systems
- Lifecycle management of existing doorsets

Core Principles

Practical, evidence-based and proportionate approaches should guide fire door assessment, repair and lifecycle management.

- Practical existing-building focus
- Evidence-based remediation pathways
- Risk-informed decision making
- New Zealand building condition awareness

- International best-practice consideration

Defect Classification

Fire door defects should be assessed according to likely impact on fire resistance, smoke control, operational performance and occupant safety.

Not all defects require identical remediation pathways.

Repair vs Replacement

One of the largest industry challenges is determining when repair is appropriate and when full replacement is necessary.

Repair decisions should consider:

- Structural integrity
- Smoke-control performance
- Operational performance
- Repair practicality
- Available evidence
- Long-term maintainability

Inspections

Fire door inspections should follow structured and repeatable methodologies covering:

- Door operation

- Positive latching
- Smoke seals
- Perimeter gaps
- Threshold clearances
- Hardware condition
- Frame condition
- Glazing systems

Repair Methods

Fire door repairs should preserve the intended fire and smoke performance of the doorset wherever reasonably achievable and properly documented.

Smoke Control

Smoke spread may present a life-safety risk before direct flame spread reaches occupants. Smoke seals, leakage paths and door-closing performance should therefore form part of every inspection and maintenance programme.

Legacy Fire Doors

Many existing New Zealand buildings contain undocumented or historic fire door systems. Practical assessment approaches are often required where modern labels or documentation are unavailable.

Fire Door Registers

Fire door registers assist with lifecycle management by recording door identification, defects, inspections, repairs, evidence and ongoing maintenance history.

Professional Position

Fire doors should be managed as long-term life-safety assets rather than isolated maintenance items.

Structured inspections, practical repair pathways and consistent evidence systems can significantly improve long-term building compliance outcomes.

Disclaimer

This guide is intended to provide practical industry guidance only and should not be treated as a substitute for project-specific fire engineering advice, manufacturer requirements or statutory compliance review.
