

**Health and
Safety Unit**



**University Technical Fire Policy & Procedures
(Fire Doors)**

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1. Introduction

This document summarises the fire door inspection and maintenance regime at the University that is necessary to ensure that fire doors adequately resist fire and (where necessary) smoke. A fire door's function in terms of other requirements (for eg. the need to reliably facilitate escaping occupants) is beyond the scope of the document.

Regarding inspection protocols, fire doors are subject to either routine checks or full condition surveys (routine checks being far more commonly carried out than full surveys).

2. Door standards

The construction and testing of fire doors has changed over many decades. Further to this, doors that may have met historic standards might not pass current tests. Such doors have, however, performed effectively in many fires and can in many cases, if maintained properly, continue to serve as fire doors, generally without modification. Moreover, it may not be possible to simply replace some doors due to other legislative requirements (where, for example, a building is listed). Ultimately, a risk assessment is necessary to determine if the risk posed by doors deviating from current guidance can be tolerated. Any such risk assessment will need to consider such things as the likely performance of the door and whether that would be adequate given its location within a particular building.

3. Routine door checks

Routine door checks are designed to efficiently and promptly identify fundamental problems that would have a significant detrimental effect on fire door performance. The checks can be carried out by any responsible individual that has been provided with suitable guidance, instruction and training. The frequency of door checks varies depending upon the location of the door (notionally higher risk doors will be checked more frequently). The checks can be carried out reasonably quickly (it should take no more than a couple of minutes to examine a door).

Table 1 below (based on the requirements of Annex I in BS9999¹ and recent Government guidance) summarises what needs to be assessed when carrying out routine checks. Table 2 further below details the frequency of these checks.

Gaps	Are door gaps at the sides and the top less than 5mm? Is the gap at the base of the door less than 10mm?
Door seals	If door seals are fitted, are they present and undamaged?
Door closer	Does the door closer close the door effectively and in line with the frame (or other door, where present)?
Door	Is the door secure in the frame and free from significant damage or defects?
Frame	Is the door frame secure and free from significant damage or defects?
Glazing	Is any glazing within the door or adjacent panels secure and free from obvious defects?
Ironmongery	Is ironmongery (handles, doors, hinges, locks, closer, etc) free from significant damage and secure?

Table 1: Details of routine door inspection

	Door/location	Inspection frequency (months)
Residential	Flat (bedroom) ²	12
	Flat (entrance & kitchen doors)	3
	Refuge	3
	Staircase (single)	3
	Staircase (multiple)	3
	Cross-corridor	3
	Other common parts fire doors	3
	Other residential fire doors	6
Non-residential	Staircase (single)	3
	Refuge	6
	Staircase (multiple)	6
	Cross-corridor	6
	Protected route	6
	Other non-residential fire doors	6

Table 2: Door inspection frequency

¹ BS9999:2017 Fire safety in the design, management and use of buildings – Code of practice, p350

² Bedroom doors are regarded as entrances to domestic premises.

4. Full condition survey

A full condition door survey is carried out at more extended intervals, or where there are significant concerns about the standard of doors within a building. These concerns might arise, for example, when a new building is taken over and doubts exist as to whether fire doors will perform effectively.

A full survey naturally takes a little longer to complete and the competence required to do this work is of a higher order than that required for those carrying out routine checks (individuals would be expected to have a recognised fire door inspection qualification).

The details of what information should be assessed and recorded as part of a full condition survey (in addition to those included as part of the routine check described above) are listed in Table 3 below.

Door age	What age is the approximate age of the door?
Construction	Describe general construction of door (flush, raised and fielded, etc)
Configuration	How is the door configured (single/double leaf; single/double action, etc)
Size	Appropriate dimensions
Closer type	Standard, concealed, automatic, etc
Ironmongery	List the ironmongery fitted to the door and its general adequacy
Glazing	Describe the glazing fitted to the door, its dimensions and fire rating
Signage	Describe the signage fitted to the door
Design standard	What standard is the door expected to meet (eg FD30, FD30S)?
Certification	Is the door certified?
Notional fire door	If the door is not certified, does it appear to be a fire door based on its dimensions, weight and other relevant factors. ³

³ Such doors may have been fitted in accordance with previous standards and practices in respect of fire doors, for example BS 476-8:1972. If a door being used as a fire door is neither certificated or notional, it should be regarded as merely 'nominal'.

What upgrades have been carried out, if any?	Have modifications been made to improve the door's performance – for example, has intumescent material been added to parts of the door.
Other features	Describe any other features that may have a bearing on the door's performance.
Frame stopping	Has the gap between the frame and opening been fire stopped in a satisfactory manner?
Further investigation	Describe any further investigation that may be necessary (for example, to determine the likely performance of a nominal fire door).

Table 3: Additional requirements of full survey

5. Defect scoring and prioritisation

Any defects identified during a routine check or full survey should be prioritised so that resources are used in such a way as to maximise benefit in terms of risk reduction. To facilitate effective prioritisation, defects and deviations must be adequately described - measurements and photographs should be provided where necessary.

Table 4 below should be used to categorise defects into three different classes according to their significance. In the first category are critical defects, such as a door not closing. In the second category, there are listed significant defects that warrant repair in all instances. Third category defects are those which represent lesser deviations which ought to be recorded but may be tolerated for the time being (subject to the risk they represent).

Figures quoted in the table are, in the item description, modern standards or (in the defect class columns) orthodox historic deviations (in the main) from those modern standards. Some reasonable subjectivity has also been applied where appropriate; for example, an excessive gap is not considered to be excessive (for the purpose of recording it as a class ii defect) unless it exceeds 150mm in length. This is done to ensure a greater focus on gap deviations across an entire side of a door leaf.

Area	Item	Defect class		
		i	ii	iii
Door and frame	Does the door appear to be in good condition and free from obvious defects?		Major defects (eg. holes left by removed locks)	Lesser defects (eg gouges and dents)
	Is it free from significant distortion and fit well in its frame?		Significant deviations, such as warps greater than 5mm (length) or 3mm (width)	Lesser deviations
	Is the gap around the top of the door and both sides consistently around 3-4mm?		Excessive gaps greater than 5mm	Lesser deviations
	Is the frame fixed securely to the wall?		All defects	
	Are door stops fixed securely?		All defects	
	Does the door swing freely and not catch on the floor covering?	All defects		
Hinges	Is the door fitted with three hinges?		All deviations	
	Do they appear to be in good condition and properly secured to the frame?		All defects	Hinges fitted to older/unknown standard
Intumescent and smoke seals (where fitted)	Is the intumescent seal secure, in good condition and continuous (as far as possible)?		Damaged/defective areas greater than 150mm in length	Lesser damage or where intumescent seals were not fitted originally.
	Is the smoke seal secure, in good condition, continuous (as far as possible) and touching the frame?		Damaged/defective areas greater than 150mm in length	Lesser damage or where smoke seals were not fitted originally (or bedroom doors).
Threshold	Is the gap along the bottom edge no more than 8mm (3mm if smoke seals are fitted to the door)?		Gaps greater than 10mm	Lesser deviations
	If a threshold seal is present does it contact the floor covering when the door is closed?		Damaged/defective areas greater than 150mm in length	Lesser damage
Glazing	Does the glass appear to be fire resisting (Georgian wire or marked as FR)?		If not fire resisting	
	Are the glazing beads securely attached to the frame and free from damage?		Significant defects (eg loose or missing beads)	Lesser defects (eg gouges and dents)
	Does the glass appear to be secure and free from damage?		Significant defects (eg cracked panes)	Lesser defects/flaws
	If glazing panels are below 1500mm from the bottom of the door, is the glass safety glass?		All defects	
Door closers	Does the door close properly without slamming or assistance?	All defects		
	Is the closer securely attached to the door and the frame?	All defects		
	Is the closer free from damage and not leaking oil?		All defects	
	Where fitted/necessary, do door selectors function correctly?	All defects		
Signage	Are fire doors fitted with self-closers indicated by a 'fire door - keep shut/closed' sign?		Fit where absent and acceptable	
	Are fire doors without closers (cleaners' cupboards, etc) fitted with a 'fire door - keep locked shut' sign?		Fit where absent and acceptable	

Table 4: Defect categorization

Table 5 below provides a guide as to how to score defects and prioritise their repair so that the doors that require, in risk terms, more urgent attention are repaired first.

When using the table, defects should be individually scored and totalled.

Consequently, several lesser defects may place an individual door in the same repair priority as one with more serious defects. It may, however, be acceptable in certain situations to remedy a limited number of defects if this leads to a situation where the overall risk of the remaining deficiencies can be tolerated (i.e. they total less than 8). Consequently, where a defect score is made up of several elements, it should be subject to a risk assessment to determine what remedial action should be carried out when. The one exception to this rule is where a door has individual defects that on

their own warrant immediate attention. A flow chart that summarises the entire process can be found at Figure 1 on page 9.

Defect risk scoring	
Defect class (apply highest)	Score
Class i	9
Class ii	5
Class iii	1
Other factors (apply highest)	
Residential building	3
Suggested timescale for repairs	
Score ≥ 9 (P2 priority):	Repair immediately or as soon as possible
Score ≥ 8 (P5 priority):	Repair promptly (ideally within 6 months)
Score < 8 (P5 priority):	Repair or improve subject to risk or when carrying out relevant refurbishment

Table 5: Defect repair prioritisation

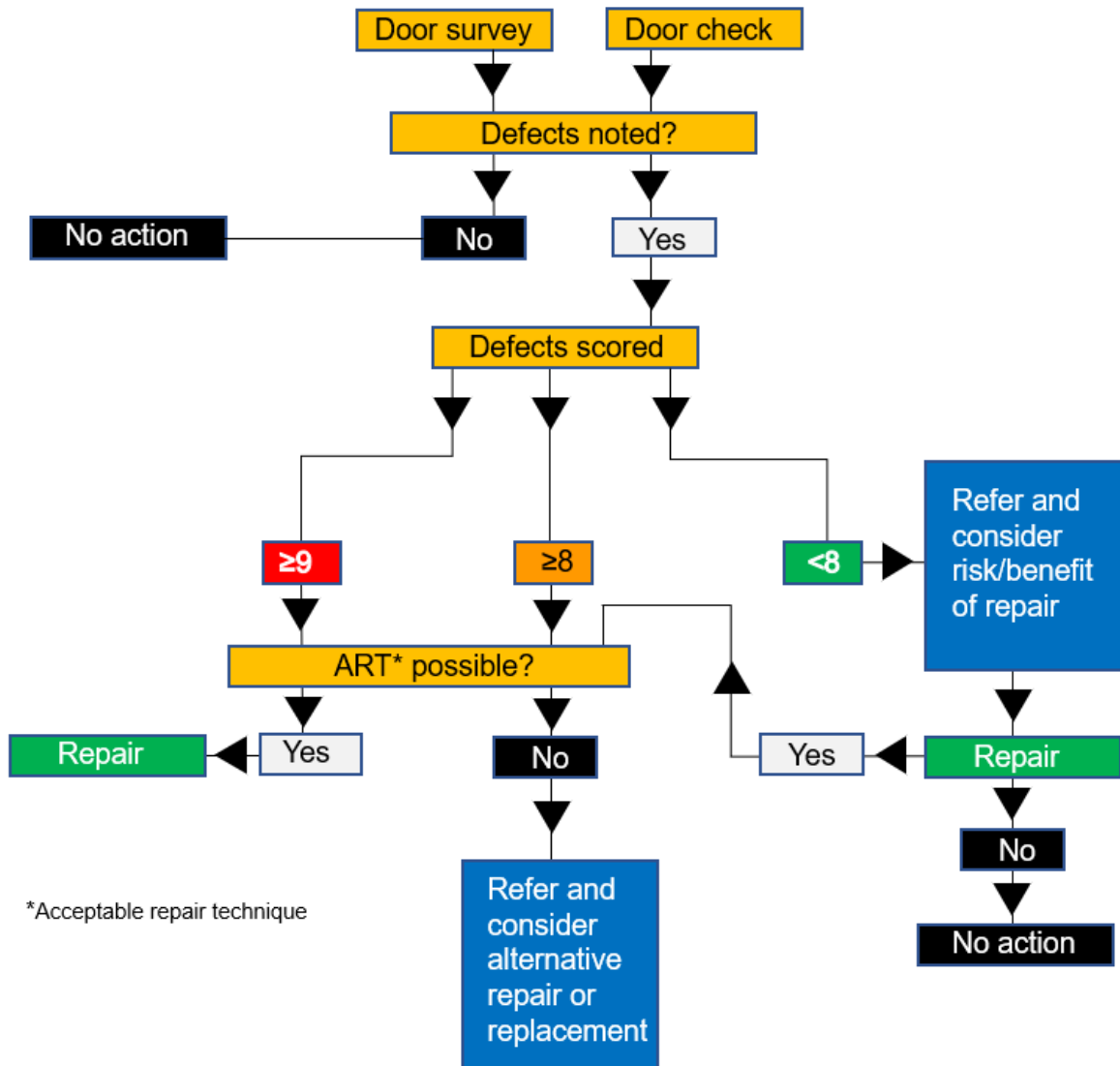


Figure 1: Process flow chart

6. Repair or replacement

Doors should be adjusted or repaired as required by competent persons. Companies carrying out work should generally belong to suitable 3rd party schemes such as those operated by BM Trada or the LPCB.

Where it is not possible or economical to repair a door, it should be replaced. Here, a decision needs to be taken as to whether to fit a door set (a complete set (or kit) of fire door components from a single source) or a door assembly (compatible components from separate sources). In respect of the latter route, it may be possible to utilise existing frames.

7. Heritage considerations

Doors in heritage buildings need particular consideration and a balance must be struck between the need to preserve the building's character and need to comply with fire safety requirements. Various techniques can be employed to improve an older door's performance, and these must be explored alongside an assessment of the potential fire a door might be exposed to.

8. Audit

The effectiveness of the door maintenance within University buildings is monitored via:

- Routine residential/academic building H&S inspections
- The fire risk assessment programme
- Internal and external audits of the Estates and Facilities Directorate