

Fire Compartmentation Survey



1. Introduction

- 1.1 The Regulatory Reform (Fire Safety) Order 2005 applies in England and Wales and The Fire Safety (Scotland) Regulations 2006 applies in Scotland.
- 1.2 The legislation covers general fire precautions and other fire safety duties, which are needed to protect relevant persons in case of fire in and around most premises. The legislation requires fire precautions to be put in place where necessary and to the extent that it is reasonable and practicable in the circumstances of the case.
- 1.3 Responsibility for complying with the legislation rests with the 'responsible person' / 'dutyholder'. In a workplace, this is the employer and any other person who may have control of any part of the premises, e.g., the occupier or owner. In all other premises the person or people in control of the premises will be responsible. If there is more than one responsible person in any type of premises (e.g., a multi-occupied property), all must take reasonable steps to co-operate and co-ordinate with each other.
- 1.4 A fire compartmentation survey is designed to assess the physical fire risk of each individual area or sub-division of your building. Compartmentation is designed to help prevent the rapid spread of smoke and fire. Subdivisions can also protect escape routes and high-risk or high-value areas within the building.
- 1.5 Fire compartmentation minimises fire damage before the fire service arrives by effectively preventing fire from spreading throughout buildings. A fire compartment in a building acts as a barrier to smoke, heat, and toxic gases, thereby limiting its spread. In this way the fire is effectively contained in its original area, providing protection to the occupants of the building. Therefore, in considering how important fire compartments are as part of your overall fire strategy, it is essential that fire resisting walls, floors and fire doors are installed correctly so that they perform to the required fire resisting standard.

2. What A Fire Compartmentation Survey Includes

- 2.1 The survey will involve a thorough visual inspection of all areas where a fire could potentially spread. This includes assessing the condition of compartmentation features including walls, ceilings and floors and a detailed inspection of hard to access areas, including loft void and air ducts.

3. William Martin's Approach

- 3.1 As part of the visual inspection we conduct within your building, the William Martin Consultant will examine all compartmentation lines to determine their likely performance in an emergency fire situation. There can be many types of defects in compartmentation and identifying them requires a high degree of competence. An example of a compartmentation defect is a simple penetration, such as pipework entering or exiting a compartment without gaps, or inadequate fire stopping that may allow smoke or fire to pass from one compartment to the next. Among other defects are cabling, voids, ducts or linear gaps between compartmentation lines where the compartmentation is not correctly enclosed. Generally, when issues like these are identified it is due to the original build or resulting from subsequent works.
- 3.2 Our fire compartmentation survey also involves reviewing the building's fire strategy or fire plan drawings. We then inspect the condition of fire resisting construction, examine a sample of fire doors, and assess the fire stopping installation. Finally, we evaluate passive and active fire protection installations such as fire dampers or shutters.

4. Our approach has been summarised in the following stages:

4.1 Stage1 - Fire Compartmentation Planning

To prepare for the Fire Compartmentation Site Visit the William Martin Consultant will arrange a remote meeting with the site contact in order to develop an understanding of the property and to identify the essential site-specific fire related documentation which will need to be provided and reviewed prior to the Fire Compartmentation Site Visit (Stage 2).

The William Martin Consultant will then review all site-specific fire related documentation, including fire engineering reports, fire plans (ideally scalable) etc. in preparation for the Fire Compartmentation Site Visit.

4.2 Stage 2 – Fire Compartmentation Site Visit

The William Martin Consultant will then complete the Fire Compartmentation Site Visit and will inspect all relevant in scope areas of the property in order to prepare the Fire Compartmentation Survey Report. When completing surveys, the following matters would be considered:

Lining materials for walls and ceilings on escape routes:

- Extensive over-painting
- Addition of carpets and other significant wall hangings
- Wallcoverings

Fire doors:

- Is the door a fire door?
- The importance of correct fitting of the door in the frame including door gaps
- The importance of suitable fire tested ironmongery e.g., self-closing devices, latches etc.
- The need for intumescent protection
- The provision and condition of any smoke seals
- The ability to self-close
- Release of self-closing device
- Emergency/panic escape doors
- Air transfer grilles in fire doors

Construction of fire-resisting walls, ceilings and floors forming escape routes:

- Existing construction
- Layout
- Types of new construction
- Hidden spaces

Penetrating services in walls, ceilings and floors forming escape routes:

- Cables and pipes
- Ducts and dampers
- Support for penetrating services

Fire protection to the structure of the building.

4.3 Stage 3 – Fire Compartmentation Survey Report

The purpose of the report is to detail the standards of fire compartmentation and to report on any deficiencies which may require remedial action.

5. Fire Compartmentation Survey Report

5.1 Once completed, we'll provide you with a written report detailing the required improvements (both structural and non-structural). The specific format of the report would be tailored to the client, however, it would generally include the following:

- Executive Summary – including a summary of the key findings and conclusions.
- Fire Safety Action Plan – containing a prioritised plan detailing any improvements.
- Fire Compartmentation Survey Findings – containing a table by subject.
- Protocol – confirming the survey methodology and advice priority definitions.



Compliance without compromise

We create next-generation building compliance by fusing clever consultancy with cutting-edge technology, so our clients can grow. Our products include:




Consultancy: Unparalleled expertise to safeguard your people and property.



Meridian: Our online compliance and risk management platform gives you total visibility.



Prosure360: Take control of your supply chain, confidently and efficiently.

 0203 819 8829

 enquiries@wmcompliance.co.uk

 wmcompliance.co.uk

Health & Safety • Legionella • Fire Safety • Asbestos • Contractor Management • Accessibility • Environmental • Training

London Office, 20 Grosvenor Place, London, SW1X 7HN

Registered Office, C/O Marlowe Plc, 20 Grosvenor Place, London, England SW1X 7HN

William Martin is part of the SRC Group. Our other brands are Elogs and Barbour EHS.