





<p>Mandatory Fire Safety Instruction</p> 	 <h2 style="margin: 0;">NEW PROJECTS DOCUMENTATION FOR OCCUPATION - REGULATION 38 FIRE STRATEGIES, DRAWINGS &amp; INFORMATION REQUIREMENTS</h2>
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Reference A: **Approved Document B Fire Safety** (Volume 2) the Building Regulations 2010: - Para 0.06 Management of Premises.

Reference B: **Approved Document B Fire Safety** (Volume 2) the Building Regulations 2010 – **Section 19** Fire Safety Information required under **Regulation 38**.

### What both the Principal Designer & Principal Contractor need to know:

 <b>Mandatory</b>	<p><b>Mandatory</b> - UCL 'the Client' requires that design teams comply with the <b>Regulatory Reform (Fire Safety) Order 2005</b>. Specifically, the protection of UCL staff, students and visitors by providing suitable and effective control measures to mitigate the impact of fire from their design.</p>
	<p><b>Mandatory</b> - UCL 'the Client' requires design teams to comply with <b>Regulation 38 (The Building Regulations 2019)</b>. Specifically, suitable and sufficient fire safety information is provided <b>prior to 'Practical Completion / Client Occupation'</b> to allow safe occupation, fire brigade information and maintenance of the building's fire safety systems.</p>
	<p><b>Mandatory</b> - the fire strategy (where required) for the new buildings / projects must be a 'dynamic document' to reflect alterations and changes to the design of the building throughout construction, to practical completion and occupation by UCL. Design team <b>fire engineering services need to monitor and update strategy to reflect design to practical completion</b> - <u>not just</u> for Building Regulation Approval.</p>
	<p><b>Mandatory</b> - UCL 'the Client' requires that <b>all elements</b> of external cladding system are <b>non-combustible in design (A1)</b>.</p>
 <b>Prohibited</b>	<p><b>Prohibited</b> - to introduce complex or inappropriate measures to the building design for the sake of aesthetics or convenience, which requires fire safety management controls on occupation by UCL that solely rely on 'fire safety management' by occupants to resolve building design issues.</p>
 <b>Acceptable</b>	<p><b>Statuary Authorities</b> - it is recommended that both the design and general fire strategy be discussed at <b>RIBA Stage 4 (D)</b> with the Local Authority Fire Brigade, Building Control Officers and UCL Fire Safety team. This is to ensure that design concept will not present problems at handover affecting project completion.</p> <p><b>Principal Designer &amp; Contractors</b> - it is recommended that both the design and general fire strategy and regulation information required is discussed &amp; reviewed at <b>RIBA Stage 4 (D)</b> to check understanding &amp; assumptions prior to <b>Stage 5 (E)</b> handover and practical completion / client occupation.</p>

**Note** - UCL Employers' Requirements see UCL Fire Safety Technical Notes available at: <https://www.ucl.ac.uk/safety-services/fire/table-employers-requirements>

## 1.0. Regulation 38 the Building Regulations - Fire Safety Manual & Information

- 1.1. **Reference B** - requires that *'the person carrying out the project work shall give fire safety information to the 'Responsible Person' or his representative not later than the date of completion of works, or the date of occupation of the building or extension whichever is the earlier' – information shall be supplied by the Principal Contractor and Designers prior to handover.*
- 1.2. Documents and Drawings are to be provided electronically via **Web Download or Transfer / Data Stick / CD** marked with Project Name and set out in separate folders with Docs (Word & unlocked PDF ) / Drawings (.DWG) / Drawings (.PDF) formats.
- **Note** - please ensure that the **File Name lengths are short** to allow opening of files when down loading!
- 1.4. The UCL Fire Safety Manager **shall** on behalf of the 'UCL Responsible Person', be provided with 'fire manual information' set out with the following in documents, drawings, strategies and specifications as follows:

## 2.0. Essential Information, Documentation & Drawings:

- Details shall be provided of all of the following:
  - Specifications of any fire safety equipment provided, including routine maintenance schedules;
  - Any assumptions regarding the management of the **building** in the design of the fire safety arrangements;
  - **Disabled People** - any provision incorporated into the building to enable the evacuation of Disabled people, which can be used when designing suitable personal emergency evacuation plans;
  - Any other relevant information, Plans (in both AutoCAD & PDF);
- 1 x Set of '**General Arrangement (GA) 'As Built'** drawings (in both AutoCAD & PDF);
- 1 x Set of '**Fire Strategy 'As Built'** drawings (in both AutoCAD & PDF);
  - **Travel Distances** - this should include Means of Escape (MoE) **travel distances** to/from escape routes / inner room arrangements;

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1. The Fire Safety Order 2005 defines the '**Responsible Person**' as the employer (UCL Council) in relation to a workplace, if the workplace is to any extent under their control. However, the day-to-day responsibility is devolved to the 'UCL President and Provost', who is the employer's representative.

- **Escape routes** - this should include exit capacity (i.e. the maximum allowable number of people for each storey and for the building);
  - **Fire Strategy Drawings** - shall provide information on project fire compartmentation, appropriate Fire Resistance (30, 60 or 120 minutes) and separation of building structures, indicating fire walls, fire doors fire shutters / curtains and their fire rating, ting, signage the floors and general layouts;
    - location of **fire-separating elements** (including cavity barriers in walk-in spaces);
  - **Fire Doors** - fire doorsets fitted with a self-closing device and other doors equipped with relevant hardware. (see UCL Fire Safety Tech Note TN013);
  - **Fire Rated Glazing** – details of fire rating of relevant screens or windows (see UCL Fire Safety Tech Note TN013);
  - **Safety Signage** - indicate fire signage (see UCL Fire Safety Tech Note TN090);
  - **Firefighting Equipment** - indicate dry or wet risers / dropping mains and other firefighting equipment and location of hydrants outside the building.
- **Fire Alarm (FA) System:**
  - 1 x set of '**Fire Alarm 'As Installed'**' drawings showing locations of smoke / heat detector heads, alarm call-points, alarm sounders, alarm control panels and I/O devices (in both AutoCAD & PDF);
  - Fire alarm **Cause & Effect information 'As Installed'** documents in MS Excel and PDF;
  - Fire alarm **Zone Chart information 'As Installed'** drawings (in both AutoCAD & PDF);
  - Copy of **FA Zone & Device Addresses** - documents in MS Excel;
  - Copy of sounder levels for rooms and individual areas.
- **Emergency Lighting (EL) System:**
  - 1 x set of '**Emergency Lighting 'As Installed'**' drawings in AutoCAD and PDF showing locations of EL light units control panels etc.
  - Copy of lighting levels (dark test) for rooms and individual areas.

### 3.0. Additional Information, Documentation & Drawings for Complex Buildings

A detailed record should be provided of both of the following:

- The **'As Built'** fire safety strategy:
  - The fire safety strategy, including all assumptions in the design of the fire safety systems (such as fire load);
  - Any risk assessments or risk analysis;
  - All assumptions in the design of the fire safety arrangements for the management of the **building**.
- Procedures for operating and maintaining any fire protection measures. This should include an outline cause and effect matrix / strategy for the **building**;
- Further guidance is available in Clause 9 and Annex H of **BS 9999-2017**;
- Further guidance is set out in **Clause 19.6**, ADB (Vol 2)-2019.

#### Specific information as appropriate:

- **Smoke Control Arrangements and System (if appropriate):**
  - 1 x set of **'Smoke Vents (for Atrium / Stairs / Basement as Appropriate), complete with Controls and Fire Dampers - As Installed'** showing locations of smoke vents manual overrides and control panels etc. (in both AutoCAD & PDF);
  - Smoke System **Cause & Effect Information 'As Installed'** documents;
  - Copy of smoke vent type, controls, operation details - documents as necessary;
- **Smoke Curtains & Fire Shutters (if appropriate):**
  - 1 x set of **'Smoke Curtain / Shutters & Controls - As Installed'** drawings showing locations of curtains shutters and any manual overrides and control panels etc.
  - **Cause & Effect Information 'As Installed'** documents;
  - Copy of curtain / shutter type, controls, operation details - documents as necessary;

- **Sprinklers / Water Mist / Fire Suppression Systems (if appropriate):**
  - 1 x set of **'sprinkler or other fire suppression system(s), including isolating valves and control equipment locations - As Installed'** drawings in AutoCAD and PDF showing locations of details and any manual overrides and control panels etc.
  - **Cause & Effect Information 'As Installed'** documents;
  - Copy of system type, controls, operation details - documents as necessary;
- **Air Handling Units, Fume Cupboards/MS, Containment Level (CL) 2/3 and Specialist Laboratory Controls:**
  - 1 x set of **'System Schematics & Interface 'As Installed'** drawings showing locations of AHU Yellow Fire Brigade overrides control panels and I/O devices;
  - Systems **Cause & Effect Information 'As Installed'** details of Yellow Box override, Cause & Effects and operational documents in MS Word / MS Excel and PDF;
- **Fire Brigade Equipment (if appropriate):**
  - **Dry Riser / Foam Inlets** - test certificates;
- All information, documents with drawings in both AutoCAD & PDF;

## 4.0. Summary of Principal Documents and Plans to be 'As Built' folder Setting Out for Regulation 38 information (For Delivery for Practical Completion / Client Occupation):

4.1. General areas information required (where provided) with drawings **in both AutoCAD & PDF:**

- Architectural General Arrangement (GAs) plans;
- Atrium / Stair Smoke Vent;
- Basement Smoke Extract Systems;
- Dry Riser / Foam Inlets;
- External Building Cladding details fire rating details & Photos'
- Fire Door Certs details PDF)
- Fire Dampers and Grilles details & plans;
- Emergency/Standby Generator details & plans;
- Emergency Lighting Layouts details & plans;
- Fire Alarm and Detection details & plans;
- Fire Curtains or Shutters details & plans;
- Fire Stopping Register details & plans;
- Fire Strategy details / documents;
- Fire Strategy Plans details & plans;
- Glazed Fire Rated Window / Screens details & plans;
- Intumescent Paint Cert details & plans;
- Sprinklers Water Mist -Fire Suppression details & plans;
- Any other relevant information not covered above.

## Regulation 38: Fire safety information

This section deals with the following regulation of the Building Regulations 2010.

### Fire safety information

- 38.** (1) This regulation applies where building work—
- (a) consists of or includes the erection or extension of a relevant building; or
  - (b) is carried out in connection with a relevant change of use of a building,
- and Part B of Schedule 1 imposes a requirement in relation to the work.
- (2) The person carrying out the work shall give fire safety information to the responsible person not later than the date of completion of the work, or the date of occupation of the building or extension, whichever is the earlier.
- (3) In this regulation—
- (a) “fire safety information” means information relating to the design and construction of the building or extension, and the services, fittings and equipment provided in or in connection with the building or extension which will assist the responsible person to operate and maintain the building or extension with reasonable safety;
  - (b) a “relevant building” is a building to which the Regulatory Reform (Fire Safety) Order 2005 applies, or will apply after the completion of building work;
  - (c) a “relevant change of use” is a material change of use where, after the change of use takes place, the Regulatory Reform (Fire Safety) Order 2005 will apply, or continue to apply, to the building; and
  - (d) “responsible person” has the meaning given by article 3 of the Regulatory Reform (Fire Safety) Order 2005.

### Intention

The aim of this regulation is to ensure that the person responsible for the building has sufficient information relating to fire safety to enable them to manage the building effectively. The aim of regulation 38 will be achieved when the person responsible for the building has all the information to enable them to do all of the following.

- a. Understand and implement the fire safety strategy of the building.
- b. Maintain any fire safety system provided in the building.
- c. Carry out an effective fire risk assessment of the building.

## Section 19: Fire safety information

- 19.1** For building work involving the erection or extension of a relevant **building** (i.e. a **building** to which the Regulatory Reform (Fire Safety) Order 2005 applies or will apply), or the relevant change of use of a **building**, fire safety information should be given to the responsible person at one of the following times.
- When the project is complete.
  - When the **building** or extension is first occupied.
- 19.2** This section is a guide to the information that should be provided. Guidance is in terms of essential information and additional information for complex **buildings**; however, the level of detail required should be considered on a case-by-case basis.

### Essential information

- 19.3** Basic information on the location of fire protection measures may be sufficient. An as-built plan of the **building** should be provided showing all of the following.
- Escape routes** – this should include exit capacity (i.e. the maximum allowable number of people for each **storey** and for the **building**).
  - Location of **fire-separating elements** (including **cavity barriers** in walk-in spaces).
  - Fire doorsets**, **fire doorsets** fitted with a **self-closing device** and other doors equipped with relevant hardware.
  - Locations of fire and/or smoke detector heads, alarm call points, detection/alarm control boxes, alarm sounders, fire safety signage, **emergency lighting**, fire extinguishers, dry or wet fire mains and other firefighting equipment, and hydrants outside the **building**.
  - Any sprinkler systems, including isolating valves and control equipment.
  - Any smoke control systems, or ventilation systems with a smoke control function, including mode of operation and control systems.
  - Any high risk areas (e.g. heating machinery).
- 19.4** Details should be provided of all of the following.
- Specifications of any fire safety equipment provided, including routine maintenance schedules.
  - Any assumptions regarding the management of the **building** in the design of the fire safety arrangements.
  - Any provision enabling the evacuation of disabled people, which can be used when designing suitable personal emergency evacuation plans.



## Additional information for complex buildings

**19.5** A detailed record should be provided of both of the following.

- a. The fire safety strategy.
- b. Procedures for operating and maintaining any fire protection measures. This should include an outline cause and effect matrix/strategy for the building.

Further guidance is available in clause 9 and Annex H of **BS 9999**.

**19.6** The records should include details of all of the following.

- a. The fire safety strategy, including all assumptions in the design of the fire safety systems (such as fire load). Any risk assessments or risk analysis.
- b. All assumptions in the design of the fire safety arrangements for the management of the building.
- c. All of the following.
  - i. **Escape routes** (including occupant load and capacity of escape routes).
  - ii. Any provision to enable the evacuation of disabled people.
  - iii. Escape strategy (e.g. simultaneous or phased).
  - iv. Muster points.
- d. All passive fire safety measures, including all of the following.
  - i. Compartmentation (i.e. location of **fire-separating elements**).
  - ii. **Cavity barriers**.
  - iii. **Fire doorsets**, including **fire doorsets** fitted with a **self-closing device** and other doors equipped with relevant hardware (e.g. electronic security locks).
  - iv. Duct dampers.
  - v. Fire shutters.
- e. All of the following.
  - i. Fire detector heads.
  - ii. Smoke detector heads.
  - iii. Alarm call points.
  - iv. Detection/alarm control boxes.
  - v. Alarm sounders.
  - vi. Emergency communications systems
  - vii. CCTV.
  - viii. Fire safety signage.
  - ix. **Emergency lighting**.
  - x. Fire extinguishers.
  - xi. Dry or wet fire mains and other firefighting equipment.
  - xii. Other interior facilities for the fire and rescue service.

- xiii. Emergency control rooms.
- xiv. Location of hydrants outside the building.
- xv. Other exterior facilities for the fire and rescue service.
- f. All active fire safety measures, including both of the following.
  - i. Sprinkler system(s) design, including isolating valves and control equipment.
  - ii. Smoke control system(s) (or heating, ventilating and air conditioning system with a smoke control function) design, including mode of operation and control systems.
- g. Any high-risk areas (e.g. heating machinery) and particular hazards.
- h. Plans of the building as built, showing the locations of the above.
- i. Both of the following.
  - i. Specifications of any fire safety equipment provided, including all of the following.
    - Operational details.
    - Operators' manuals.
    - Software.
    - System zoning.
    - Routine inspection, testing and maintenance schedules.
  - ii. Records of any acceptance or commissioning tests.
- j. Any other details appropriate for the specific building.