

DIRECTORATE OF ESTATES AND FACILITIES

PROCEDURE AND INFORMATION MANUAL

EPM HS32

Guidance for New Projects – Fire Strategies

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The purpose of this document is to...

Guidance for New Projects – Fire Strategies

Introduction

Purpose of the guidance

This document contains practical guidance for building project design teams to ensure that fire safety strategies merge with The University of Manchester existing campus wide fire safety management systems and procedures. The guidance is intended for use on all buildings that are constructed, adapted or refurbished for use by The University of Manchester.

Intended readership

The guidance is aimed at those guiding minds who are charged with procuring, advising and delivery of building projects;

Typically this would include:

- Heads of Schools and Faculties
- Heads of Directorates and Managers
- Heads of Departments
- Consultants
- Contractors
- Client Representatives
- Project Managers
- Fire Safety Engineers

Design and Fire Strategies – Consultant/Fire Engineers

Fire strategy and fire engineered solutions at initial building design stage are to take into account the technical guidance available that permits a degree of flexibility dependant on complexity of the circumstances;

There are three levels of approach to design;

- Approved Document B- General Design
- BS 9999 – Advanced Design
- BS 7974 – Fire Safety Engineering

Clear initial design requirements from the Client will determine the appropriate approach to adopt meeting regulatory framework requirements. The key message is to consider carefully the full implications of more advanced and bespoke engineered choices.

A fundamental assumption of fire engineered solutions, management is intensified. It is acknowledged that management becomes the key element for maintaining fire safety for the life of

the building. There must be awareness that ongoing management above nominal current procedures may introduce additional revenue costs for the project.

In new and significant building upgrades the interrelationship between Capital and Revenue costs are balanced, reduction in one can be compensated by increase in the other.

General Recommendations

- ❖ The fire strategy shall provide practical management conditions that are co-ordinated to seamlessly integrate with The University of Manchester management systems and procedures.
- ❖ It is not acceptable to provide features that rely heavily on fire safety management, to resolve issues in the design of the building on occupation by UoM.
- ❖ The design of a building project shall facilitate the smooth introduction of fire safety management. It is not acceptable to introduce complex or inappropriate measures for the sake of budget cost that compound fire safety management. The potential imbalance of short term cost savings at the design stage that rely heavily on management to work effectively, can place a costly legacy in management throughout the lifespan of the building.
- ❖ The dynamic changing environment of The University of Manchester should be considered at design stage to provide greater flexibility for the potential future use of the building. It may be prudent to increase levels of structural passive protection with a proportional reduction of fire management issues.
- ❖ The fire strategy document should be dynamic reflecting design changes and alterations throughout its design and construction phases and is inclusive of practical completion and occupation by The University of Manchester.
- ❖ The University Fire Safety Officer should be consulted at the initial design stages to ensure the overall planning and design criteria integrate with existing strategies, systems and procedures.
- ❖ The fire strategy should be developed in the formative design stages allowing the University Fire Officer to comment prior to a point where design direction cannot be changed without significant commercial impact.
- ❖ It is recommended that the design and fire strategy are the subject of open and transparent dialogue with the local authority fire service, building control, design team representatives and University Fire Officer. This will ensure that the design meets all regulatory criteria preventing any problems at handover that could delay completion or increase budget expenditure.

Regulation 38 the Building Regulations – Fire Safety Manual and Information

It is a requirement of the Building Regulations that fire safety information shall be given to the responsible person at the completion of a project or when a building or extension is occupied. In all cases a Fire Safety Manual is to be supplied by the principal contractor and designers at handover and shall be formatted to the agreed University standard. The University Fire Officer will provide guidance on this standard.

The Fire Safety Manual shall be provided for all major refurbishments and new buildings as required under Reg 38. The drawings should be both in AutoCAD and PDF format detailing the general layout with the following information included;

- Building fire compartmentation and the fire resistance level 30,60, 120 minutes
- Fire doors
- Fire alarm system devices, call points, detectors smoke/heat, sounders, beacons, FAP
- Where voice alarms are provided details of the messages and operation
- Smoke ventilation, control points, natural or mechanical with inlet/exhaust identified
- Fire dampers and there method of operation
- Emergency lighting systems and each lighting unit and test facilities
- Dry/wet risers, hydrants
- Extinguishers
- Disabled refuges, communications and evacuation equipment
- Firefighting, Evacuation lifts
- Details of engineered solutions
- Any other relevant information e.g. when the building is occupied the limitations and control measures that are relevant in the event of changes to the risk profile of the building
- Routine testing and maintenance of all mechanical and electrical equipment. Plus design schedules and operating procedures for all systems installed for fire safety
- The level and type of fire safety management necessary to run the building
- Evacuation and refuge signage
- Assembly/muster points

Information required by the UoM Fire officer

The fire strategy document for the new building/refurbishment will form the basis of future fire risk assessments and Fire Safety Management when occupied under the Regulatory Reform (Fire Safety) Order 2005.

A copy of a complete set of the following as installed plans in AutoCAD and PDF should be provided:

- The fire strategy indicating all lines of fire compartmentation, walls, floors, fire doors, shutters, curtains and specific risk profile for higher risk
- Fire alarm systems with all detection, call points, beacons and sounder devices indicated
- Copy of the fire alarm zone information and zone charts
- Emergency lighting, each lighting unit and central battery location
- Smoke vents and controls and Fire Dampers

Any other documents that may be required by enforcing authorities or the UoM Fire Officer will be requested during consultation.

All this information should be indexed and provided electronically in a folder for the UoM Fire Officer in both MS Word and PDF.