(DWFRS) OA35 Strategies used for Building Evacuations

Fire & Rescue Service Operational Guidance

(DWFRS) OA35



DORSET & WILTSHIRE FIRE AND RESCUE

Strategies used for Building Evacuations

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	When building an evacuation strateg person responsible for the building n based on the levels of fire resistance evacuation or escape strategies that should be kept under review through	y, a 'stay put' policy is designed and not the Fire and Rescue Service. An i for compartment walls and floors. T are based on 'stay put' or 'defend in out the incident.	implemented by the ndividual strategy is he use of occupant place' practices

Introduction

- Emergency evacuation is the immediate and urgent movement of people away from the threat or actual occurrence of a hazard. Public responses can vary from inaction to panic. Communication is the key factor in maintaining control when conducting an evacuation.
- The primary objective of an evacuation strategy is to make sure (in the event of a fire) the occupants of a building can reach a place of ultimate safety outside the building. Evacuation procedures are an essential part of the overall fire strategy.
- As part of the Decision Control Process at an incident, it is essential that Incident Commanders understand the evacuation strategy in place at a building.
- When producing Site-Specific Risk Information (SSRI) and incident plans the evacuation of large numbers of people must be considered. A significant factor in planning is the time an evacuation will take. This must account for the time taken for individuals to move towards an exit, and the time taken before movement is initiated.
- The responsible person needs to be able to provide information about the occupant evacuation strategy.
- To enhance the efficiency of any evacuation strategy, communication and information are vital prior to and during any incident.

Occupant evacuation or escape strategies

- The following factors need to be considered and reviewed when determining an evacuation strategy, to maintain the safety of occupants:
 - There is a clear passageway to all evacuation routes.
 - Any risks to occupants exiting along firefighting access routes.
 - Exposure to potential hazards.
 - Do any occupants require assistance to evacuate?
 - Are existing evacuation routes clearly marked, and are they as short and direct as possible?
 - Are there are enough exits and routes available for all people to evacuate safely?
 - Do emergency doors open easily in the direction of evacuation?
 - Whether or not there is emergency lighting provided where needed.
 - Has training taken place with regards to using the evacuation routes?
 - Whether a safe assembly point has been designated and communicated.
- The following strategies are not mutually exclusive and may be used in combination (e.g. progressive evacuation to refuge areas followed by phased evacuation of the refuge areas to a place of ultimate safety). Those with impaired mobility may be evacuated based on personal emergency evacuation plans (PEEPs). This may involve, evacuation of all mobility-impaired and non-ambulant people in the building to a place of ultimate safety at an early stage.

Total evacuation

- Evacuation of the occupants to a place of ultimate safety, by either simultaneous or phased procedures:
 - Simultaneous evacuation

The approach, where all occupants are not expected to remain in the building for a prolonged time and go immediately to a designated assembly point.

Phased evacuation

This is adopted where separation by fire resisting construction is present. The first people to be evacuated are those most immediately affected by the fire, and those with impaired ability to evacuate, unless their personal emergency evacuation plan (PEEP) has determined otherwise. The remaining areas are then evacuated, at phased intervals. The phasing can either be a 'horizontal phased' or a 'vertical phased' evacuation. It is common for the means of escape not to have the capacity for the total population to evacuate simultaneously in a building employing a phased approach.

Progressive evacuation

- Evacuation of the occupants, initially to a place of relative safety within the building where they can remain or, if necessary, complete the evacuation to ultimate safety as part of a managed system. There are two categories of progressive evacuation:
 - **Progressive horizontal evacuation** The process of evacuating people into an adjoining fire compartment on the same level, from which they can later evacuate to a place of ultimate safety.
 - Zoned evacuation

A zoned evacuation is achieved by moving the occupants away from the affected zone to an adjacent zone; for example, in a shopping centre where the occupants would be moved to the adjacent smoke control zone while the fire-affected zone was brought under control.

Progressive evacuation is commonly employed where:

- it is desirable or necessary for the building occupants not to leave the building entirely (e.g. detained people or hospital patients)
- the occupants may need assistance to evacuate further (e.g. mobility-impaired people who may not be able to use stairs)
- a significant operational loss would be incurred by the total and immediate evacuation of a large building for a small fire (e.g. large shopping centre).

Two-staged evacuation

This is a building evacuation strategy in which staff are alerted to a fire before the general population, so that they may prepare for a stewarded evacuation or investigate the fire and, if necessary, cancel the alarm. Usually, the main alarm will sound if staff confirm the presence of fire, if additional detectors are activated or after a predetermined time elapses without the alarm being cancelled. Two-staged evacuation is commonly employed where there is a high-density awake and unfamiliar population and a stewarded evacuation is desirable to avoid panic and disorder.

Defend in place

- This strategy relies on firefighting actions that are prioritised on protecting designated areas. This is used mainly in healthcare for those occupants that are physically unable to leave. Many of these occupants are connected to life-supporting equipment. This strategy allows healthcare staff to keep these patients in the facility, while also continue receiving any necessary treatment.
- A defend in place strategy may form part of a personal emergency evacuation plan (PEEP).

Stay Put

- This is a strategy that during a single flat fire, the occupants of that flat evacuate, and all other occupants are safe if they "remain where they are".
- A 'stay put' policy involves the following approach:
 - When a fire occurs within a flat, the occupants alert others in the flat, make their way out of the building and summon the fire and rescue service.
 - If a fire starts in the common parts, anyone in these areas makes their way out of the building and summons the Fire and Rescue Service.
 - All other residents not directly affected by the fire would be expected to 'stay put' and remain in their flat unless directed to leave by the Fire and Rescue Service.
- It is not implied that those not directly involved who wish to leave the building should be prevented from doing so. Nor does this preclude those evacuating a flat that is on fire from alerting their neighbours so that they can also escape if they feel threatened.
- There is no Building Regulations requirement to provide active or passive fire protection measures which would allow an alternative to the Stay Put Strategy.

Further Information

NOG – Evacuation
NOG – Fires in buildings - Building Research Establishment supplementary information
LGA - Fire safety in purpose-built blocks of flats