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Emergency Folders

A completion guide for building owners and occupiers

Introduction

When fire strikes, the alarm bells start ringing and the fire service are on route what happens next...? Once everyone is safely evacuated and accounted for senior management and staff alike will quickly start wondering how serious the fire and whether work can start back up again.

Before the fire service start tackling the fire an assessment of the incident must be carried out. This fire service assessment must be carried out in what is a rapidly evolving, hazardous and stressful environment.

Some factors which the fire service will take into consideration are:

- Where is the fire and how large is it?
- What materials are involved in the fire?
- Are there hazardous substances or dangerous gas cylinders inside the building?
- What does the layout of the building look like and how are fire exit routes arranged?
- How will the fabric of the building respond to the fire?

The fire service is expert at assessing such risks but, if they lack information to make a sufficiently robust assessment about fire fighter safety, the defensive option must be selected. This often means tackling the fire exclusively from the outside of the building and preventing fire spread to adjoining buildings. In these circumstances, such a decision could make the difference between a successful fire fighting operation and the total loss of the building.

The purpose of the Emergency Folder is to improve the provision of information to the fire service in the event of a major fire. By planning in advance for such eventualities a detailed and measured response can be developed. This can ensure critical information about the building and its occupation is provided to the fire service which may otherwise be hard to collate in the rapidly evolving and dynamic fire incident.

The Emergency Folder therefore aims to provide the fire service with critical information about the building and its hazards. It should be considered the very first step in the organisation's emergency response.

Please note that the details and advice contained within this document are for guidance only. Whilst all descriptions and details are given in good faith and are believed to be correct, no liability can be accepted for any errors or omissions.

Emergency Folders

The essence of the Emergency Folder is to provide the fire service with critical information about the building, its occupation and hazards in order that they can safely respond to the developing fire.

The folder should be designed so that it is clear and easy to read. Limiting the folder's contents to the essential components will support the fire service's ability to make the correct decisions regarding fire fighting tactics. The folder will also need to be kept up-to-date so that the information can be relied upon.

During the formulation of the folder it is advised that all relevant sources of information and individuals are consulted. If adequate information is not available, for example about the details of the construction, then further investigations are advised before completion of the Emergency Folder.

When completing the Emergency Folder referral could be made to:

- The Fire Risk Assessment
- The fire safety adviser or consultant
- Building or facilities manager
- Specialists such as laboratory or production managers
- Health and safety manager or consultant
- Senior management
- Mechanical and electrical contractors
- The security manager
- The insurance manager

The folder will need to be reviewed in the event of any major changes to the building or its use. It will also be necessary to review the contents on an annual basis which can be tied in with the Fire Risk Assessment review.

The Emergency Folder is not intended to provide details of evacuation and emergency procedures which occupants of the building should be familiar with. These should be separately addressed through the Fire Risk Assessment. Only information relevant to the fire service should be kept within the folder.

Once the plan has been formulated it is advised that a copy is also held in a secure box in the reception area and another copy in a separate box within another building on site, if available, to ensure that a copy is available at all times. The box can be identified by a photo-luminescent fire brigade identification logo.

The fire service may require more information about the building from key staff during the fire when the premises are unoccupied. Contact details should therefore be kept within the folder.

Security of the Folder

Particular consideration needs to be given to the security of information contained within the Emergency Folder. If commercially sensitive information is required to be included within the folder additional security measures will be needed. One solution would be to obtain a commercial Emergency Folder box system for which the fire service holds a key allowing them rapid access. Please see 'Further Reading' at the end of this document for details.

The information contained within the folder should be assessed against any risk of the folder being stolen. In particular, any information that could be damaging to the organisation if publicised, or which needs to be treated as confidential for commercial reasons, needs to be located in a security box or location with an appropriate degree of security.

It is essential that Emergency Folders do not contain any details about processes or storage that could be considered of use to terrorist or activist groups, for example, certain chemical, biological or radiation occupancies unless security of the folder can be guaranteed. Alternatively, the fire service can be directly contacted and this information passed on to them.

Equally, if there is salvage requirements for high value equipment, contents or stock this should not be detailed within the general folder if it increases the risk that thieves could target the building should the folder be stolen.

Upon completion of the folder it is advised that the information within the folder is reviewed against criteria for confidentiality, fire and security. This should form part of the sign off process for the folder.

Where only general information and plans are provided these may be deemed suitable to be stored within a secure box held within the reception area. If a manned reception desk is provided then the box should be positioned behind the desk to ensure it is out of general access.

Formulation of the Emergency Folder

The contents of an Emergency Folder will need to be addressed on an individual basis although there will be many common features. As an example, an Emergency Folder could include the following areas:

- Site plan
- Floor plans
- Details of building occupation
- Construction
- Details of any automatic fire suppression systems
- Building Services
- Hazard data sheet
- External hazard data sheet
- Special risks
- Asbestos register summary
- Hydrants & water supply
- Photographs

Site Plan

A general block plan of the site should be provided for sites with several buildings or that can be considered complex. The plan should outline how each building is occupied e.g. office, warehouse, laboratory and the like. The site plan could be complimentary to an aerial view of the site assuming this can be made available.

It is advised that all plans are contained within a splash proof plastic sleeve or laminated in order that they can be read outdoors in all weather conditions.

Floor Plans

Each floor plan of the building should be provided in an A3 format to ensure that sufficient detail can be seen. It is advised that high risk processes, equipment, contents and/or stock are distinguished by block colours as these areas present the greatest risk to fire service personnel.

In addition, specific hazards such as gas cylinders should be identified with appropriate warning symbols on the plan. If there are other hazards warning symbols should be provided subject to any security considerations.

A 3-dimensional cut-away plan of the building may be useful for complex buildings if such drawings can be made available. These should be supplementary to the conventional single line floor plans. It is advised that compartment walls are highlighted on the plan as a visual aid for fire fighters.

It is advised that all plans are contained within a splash proof plastic sleeve or laminated in order that it can be read outdoors in all weather conditions.

The approach with colour coding of plans and the use of symbols should be in accordance with recognised standards and be consistent across the whole site in order to avoid any confusion.

Occupation

A simple summary of the occupation of each building and storey should be provided. Where low risk areas such as offices are present very limited information will be needed as the fire service will be fully conversant with such risks.

Where higher risk areas are present a brief and simple description of the hazards present would be needed with the support of a photograph if this aids understanding. In particular gas cylinders, hazardous equipment and substances should be summarised.

In respect of substances only those materials which are present in sufficient quantity or that are particularly hazardous need be listed.

Hazardous industrial equipment could include pressurised vessels, overnight processes running unattended, process equipment using flammable liquids and other items which may present additional risks if involved in a fire.

For warehouses, this could be identifying the location of any bulk storage of hazardous items such as LPG cylinders, aerosols and flammable/hazardous materials.

If overnight working is allowed it is important that any individuals working in the building can be quickly identified by the fire service. Such details should form part of the separate Fire Risk Assessment and emergency evacuation procedures for the building.

Special mention may also be made of any pieces of equipment with very high values and their location. It may be possible that the fire service can commence salvage operations on these items if safe to do so. Having waterproof sheets available in a central storage location may aid the fire service in protecting fixed, sensitive, equipment which can be damaged by water.

Construction

The information needs to be accurate and include an adequate level of detail. Background information should also be provided such as the age of the building. This information will allow the fire service to determine the resistance the structure has to a fire and how quickly the fire is likely to spread.

The level of detail that needs to be included will depend upon the complexity and size of the building. Information regarding construction could include, for example, the following:

- Age of the building including any extensions
- Number of storeys and presence of any basements or mezzanine floors
- Floor construction including framework e.g. concrete, steel or timber
- Wall construction including details of insulation materials used
- Roof construction including framework and any insulation materials.

- Construction of internal walls e.g. whether brick, blockwork, plasterboard stud or sandwich (composite) panel
- Description of linings such as suspended ceilings e.g. non-combustible mineral tiles or combustible fibreboard.
- Presence of ductwork for air-conditioning or mechanical air-handling systems.
- Construction of stairwells e.g. concrete and blockwork enclosed or timber and plasterboard enclosed.
- Also include information on any unusual building features such as atria, service tunnels or special design features.

Automatic Fire Suppression Systems

If the building contains an automatic fire suppression system, such as sprinklers or gas suppression systems, these can be briefly detailed in the folder.

Building Services

The isolation of electrical, gas, water supplies and other services within the building, either within the area of the fire or for the whole building, will become necessary at some stage of fire fighting operations. The folder will therefore need to include a plan identifying the location of isolation points for such services.

Where the building contains other features such as air-handling systems, smoke vent controls and other systems of relevance to the fire service brief details should be provided within the folder.

Brief details of the automatic fire detection system should be included within the folder as detailed information, such as fire alarm zone plans, should be located next to the main fire alarm control panel and repeater panels as necessary.

Hazard Data Sheet

Fires which involve gas cylinders, especially flammable ones such as hydrogen, methane and in particular acetylene, present the greatest challenge to the fire service. In respect of acetylene cylinders current fire service policy is to set an exclusion zone, which can be up to 200 metres, for 24 hours in order to allow the gas cylinders to cool down.

It would be recommended that if such cylinders are identified during the formulation of the plan that these cylinders be removed or controlled in such a way as to minimise the risks e.g. external storage cages or by providing a piped manifold gas supply.

Gas cylinders need to be identified on the floor plans. In addition, there should be a separate hazard data sheet which includes a brief description of the type of gas cylinders and their location.

Other hazards which should be included on the Hazard Data Sheet are:

- Bulk storage tanks especially if involving flammable liquids
- Processes involving hazardous chemicals
- Unusual fire or other process risks which would not be expected within the normal occupation of the building
- Biological or radioactive risks e.g. biology labs with infectious pathogens

An example form could look like the following:

| HAZARD | TYPE | LOCATION | USE |
|-------------------------------|------|----------|-----|
| GAS CYLINDERS | | | |
| | | | |
| | | | |
| | | | |
| STORAGE TANKS | | | |
| FLAMMABLE LIQUIDS | | | |
| TOXIC and/or CORROSIVE | | | |
| BIOLOGICAL | | | |
| Radioactive Sources | | | |

External Hazard Data Sheet

Typical external hazards for the Fire Service could include:

- External gas cylinder stores
- Gas cylinder manifold supplies
- Liquid nitrogen or similar tanks
- External bulk flammable liquid stores
- Electrical substations
- Oil storage tanks

An example external hazards form could look like:

| HAZARD | TYPE | LOCATION | NOTES |
|--|-----------------------|---|-----------------------|
| EXTERNAL PIPED GASES | ACETYLENE | Gas cage at rear of building | Note number |
| | OXYGEN | Gas cage at rear of building | Note number |
| | CARBON DIOXIDE | Gas cage at rear of building | Note number |
| NB Single isolation point via fireman's switch by main fire alarm panel | | | |
| COMPRESSED LIQUID CYLINDERS | Nitrogen Piped Supply | Rear elevation, loading bay doors to ground floor lab | Note size of cylinder |

Special Hazards

Buildings will often contain a number of special risks that fire service personnel will be familiar with but there may be additional risks that require specific reporting. Some examples of special risks that should be considered are:

- Large UPS battery power supply back-up systems which remain energised even after the electrical power has been isolated
- Solar panel photo voltaic supplies will also remain energised after the electrical power has been isolated. An isolation switch should be provided and its location indicated
- Wind generators have similar risks to photo voltaic supplies.

Asbestos

Asbestos can be found in three main types, commonly referred to as Brown, Blue and White asbestos. These can be found in a wide range of building materials such as insulation boards, pipe lagging, ceiling tiles and roofing. It is not possible, however, to identify the type of asbestos from a visual inspection alone.

Due to the health hazards the fire service will treat the presence of any asbestos in a building as a hazardous material. It is therefore very important that the results of the Asbestos Register are briefly summarised within the Emergency Folder. This will allow the fire service to take appropriate precautions regarding fire fighting and, more importantly, not to expose fire service personnel or other third parties to airborne asbestos fibres released by a fire.

A sample asbestos form:

Asbestos Type

Confirmed: Yes (Date Report: xx/xx/xx)
Suspected: not applicable
Additional Comments: All other asbestos removed in 2007

| Location | | Type | Description | Condition |
|----------|--------|-----------------------|--|------------------------|
| FLOOR | ROOM | | | |
| Basement | Boiler | Fibrous | Lagging around boiler pipe | Sealed, Good Condition |
| First | 116 | Asbestos | Ceiling Tiles | Good |
| Roof | - | Asbestos Cement Board | Small section of roof cladding above lift machinery room | Good |
| | | | | |

Hydrants & Water Supply

The fire service's primary source of water to fight a fire is from fire hydrants located either on site or the surrounding streets. Such hydrants can be found from the indicating plates identified by a yellow square with a capitalised 'H'. Often the distance to the hydrant is shown on the plate as well as the pipe diameter. Pipe diameters are indicated in either inches or centimetres with usual pipe diameters ranging from 75mm (3 inch) to 150mm (6 inch) although larger diameter hydrants can be found.

Small diameter hydrants i.e. 75mm and 100mm are unlikely to provide sufficient water in the event of a major fire. Hydrants or other water supplies further away from the building will need to be located. Other sources of water could include swimming pools, water tanks or nearby lakes.

It is advised that all local fire hydrants are pinpointed on a site plan, which can be included within the folder, with the diameters indicated. In addition any other available sources of fire fighting water should be identified and included on the map. It may be necessary to provide information in the folder about preventing environmental damage from surface run-off from fire fighting activities e.g. location of any nearby water courses, culverts and drains.

Photographs

For large fire the fire service will appoint an incident commander who will control the strategy for fighting the fire. Providing photographs of all elevations will enable the incident commander to quickly form a mental picture of the building and its surroundings. This will be particularly beneficial if the fire occurs during the hours of darkness or in poor weather conditions.

It is advised that photographs of all elevations of the building, including an overall aerial view, are provided. In addition, any unusual features should be included such as external gas cylinder stores or liquid nitrogen cylinders.

Further Reading

A fire service approved supplier of Premises Information Box systems is Gerda Technology Ltd:

<http://www.premisesinformationbox.co.uk/info>

Further guidance regarding risk assessments and fire safety law can be found on the Department for Communities and Local Government website:

<http://www.communities.gov.uk/fire/firesafety/firesafetylaw/>

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Appendix I - Checklist for Items on Floor Plans & Site Plan

The list below is not intended to be exhaustive:

- Gas cylinders, hazardous equipment and materials
- Air-conditioning or mechanical air-handling control switches
- Compartment wall locations
- Dry or wet rising mains and outlet and inlet points
- Electrical intake main switches
- Emergency Generator or back-up power location e.g. UPS supplies.
- Fire doors with fire rating provided in minutes
- Fire Fighting Shaft(s), Lift(s) and Refuge point(s)
- Fire hydrant locations
- Fireman's switches for high voltage electrical discharge lamp signs
- Foam Inlet
- Gas stop valves
- Internal and external hazards and their locations
- Mechanical and natural smoke clearance system(s) and location of control switches
- Other fire suppression systems e.g. gaseous fire protection, water mist systems
- Sprinkler systems and control panels, main valves and isolation valves
- UPS battery power supplies, solar panels or wind turbines
- Water main isolation valve