



The Scottish  
Government  
CEL 11 (2011)

Dear Colleague

## FIRE SAFETY POLICY FOR NHSSCOTLAND 2011

### Summary

1. This letter provides colleagues with a revised statement of the Scottish Government Health Directorates Fire Safety Policy for NHSScotland ([Annexe A](#)) in respect of property occupied by NHSScotland and provides additional information on related matters.

### Action

2. **The Fire Safety Policy for NHSScotland 2011 and associated Mandatory Requirements ([Annexe B](#)) take immediate effect.**

### Background

3. This policy update arises from a need for additional guidance covering the commissioning period of newly built premises prior to occupation and, other matters. It replaces the previous version issued under cover of NHS CEL 25 (2008).
4. The attached policy statement continues to provide a concise definition of policy and associated mandatory requirements. It continues to recognise that fire safety is not necessarily a stand-alone issue but one to be dealt with alongside others in the overall risk management of health and safety matters. NHS MEL(1997)80 "Health and Safety Issues in NHSScotland" directs that all NHS employers should give a high priority at board level to ensuring the safety of staff, patients and visitors and to meeting their statutory health and safety obligations.

### Addresses

#### For action

Chief Executives, NHS Boards  
Chief Executives, Special Health Boards  
Strategic Facilities Group  
Scottish Property Advisory Group

#### For information

Director, Health Facilities Scotland  
Head of Building Standards  
Head of Scottish Fire and Rescue  
Advisory Unit  
Fire Safety Advisory Group

### Enquires to:

Ian Grieve  
Directorate for Health Finance and  
Information  
Capital and Facilities Division  
St Andrew's House  
Regent Road  
Edinburgh EH1 3DG

Tel: 0131-244 2777

Fax: 0131-244 2371

[ian.grieve@scotland.gsi.gov.uk](mailto:ian.grieve@scotland.gsi.gov.uk)

<http://www.pcpd.scot.nhs.uk>

<http://www.scotland.gov.uk>

### Operational & technical support advice:

National Fire Safety Adviser  
Health Facilities Scotland  
4<sup>th</sup> Floor, Empire House  
131 West Nile Street  
Glasgow G1 2RN

Tel: 0141-332 3455

Fax: 0141-332 0703

[enquiries@hfs.scot.nhs.uk](mailto:enquiries@hfs.scot.nhs.uk)

<http://www.hfs.scot.nhs.uk>



## Further information

### Fire Safety Legislation for Scotland

5. Part 3 of the Fire (Scotland) Act 2005 as amended and the supporting Fire Safety (Scotland) Regulations 2006 which came into force on 1<sup>st</sup> October 2006 now form the primary fire safety legislation for Scotland. As a result of this legislative change, fire certificates which were previously issued under the Fire Precautions Act 1971 as amended, which covered certain healthcare premises or parts thereof, ceased to have any statutory effect as of 1<sup>st</sup> October 2006.
6. **The Fire (Scotland) Act 2005 as amended and the Fire Safety (Scotland) Regulations 2006 are applicable to all NHSScotland healthcare premises, including care homes and houses in multiple occupation which require a licence. The enforcing authority is the Fire and Rescue Authority in whose area the premises are situated and compliance with the Act and Regulations is based on a fire safety risk assessment regime.**
7. The various statutory instruments under the new fire safety regime for Scotland together with supporting guidance for those affected by the legislation are available online at: <http://www.infoscotland.com/firelaw/>. Available supporting guidance includes the Scottish Government 'Practical Fire Safety Guide for Healthcare Premises' that provides recommendations regarding the fire safety risk assessment process, the reduction of risk and guidance on fire safety measures that can be implemented to mitigate risk. The Guide references NHSScotland Firecode and is intended to be read in conjunction with the appropriate NHSScotland Firecode documents which provide the technical benchmarks, aligned with Scottish Building Standards, for the Healthcare Premises Guide.

### New hospital facilities – commissioning guidance

8. Recent experience in the lead up to commissioning and hand over of new hospital facilities has identified a number of significant issues in regard to fire safety management that neither current NHS Scotland Firecode nor the previous Fire Safety Policy for NHS Scotland 2008 [CEL 25 (2008)] addresses adequately.
9. Subsequently, [Annexe C](#) of the attached Fire Safety Policy For NHSScotland 2011 identifies the issues that should be considered, or met in full, in order to address the issue of fire safety during the commissioning and lead up to hand over phases of the project. The changes to the fire safety legislative regime are a key driver in regard to the need for these arrangements, as the provisions of the new Act and Regulations are explicitly applicable to buildings at the project phase this proposal is directed towards.
10. Key fire safety management decisions must be made, and relevant fire safety information developed and gathered in regard to installed components, during the lead up to hand over. Much of the operational development of local policy,

departmental procedures and training of staff prior to opening the facility to patients will necessarily be undertaken by the fire safety adviser(s), in consultation with key management staff. However, to ensure that these essential operational processes are consistent and co-ordinated with other commissioning and operational activities during this project period it is important that key organisational roles and functions are established, so that the fire safety arrangements are properly managed and addressed in the transition from a procurement project to an operational healthcare facility.

11. The additional guidance contained in [Annexe C](#) extends fire safety management guidance to take account of the issues identified.

## Related matters

### 3i Fire Manager software

12. NHSScotland Holding Bodies are required to utilise the NHSScotland Asset Management System, supplied by 3i Studio, as a means of holding property and asset management data in a readily updateable and consistent form. An additional module to the Asset Management System, “Fire Manager” has been developed by 3i Studio in consultation with NHSScotland and Health Facilities Scotland.
13. The attached Fire Safety Policy for NHSScotland 2011 carries a mandatory requirement that “Fire Manager” must be utilised by all NHSScotland Holding Bodies as the primary means of meeting the aims of meeting the fire risk assessment requirements of both the legislation and the attached policy in the context of strategic and operational management of fire safety matters
14. It is recognised that a number of Holding Bodies may already have implemented alternative systems as part of their Board-wide fire safety strategy. However, it is expected that as such contracts come up for review, Holding Bodies will transfer to the “Fire Manager” system. In the interim, Holding Bodies are expected to migrate data from their existing system(s) into “Fire Manager” as part of their ongoing operational management.

### Fire suppression systems in healthcare premises

15. As a consequence of a recent Parliamentary exchange, Scottish Government Building Standards Division commissioned a study to undertake a cost benefit analysis of the introduction of automatic fire sprinklers in all new hospitals. Concerns about fire have traditionally centred on life safety rather than asset protection and Scotland has led the UK by introducing requirements for automatic fire suppression systems (e.g. sprinklers) in enclosed shopping centres, residential care buildings, high rise domestic buildings, and sheltered housing complexes.
16. The guidance contained in the current Scottish Building Standards Technical Handbooks relating to hospitals already covers partial sprinkler protection to those areas in the immediate vicinity of high dependency rooms such as operating theatres, intensive therapy units or special care baby units. The

purpose of the study, therefore, was to consider amending Standard 2.15 to require the installation of an automatic fire suppression system throughout new hospital buildings in order to avoid the waste of resources caused by fire in hospitals and the associated disruption.

17. The results of the study show that the costs of installing an automatic fire suppression system into new hospital buildings exceed the monetised benefits. It has been decided, therefore, that no further action will be taken at this juncture to review fire standards in relation to the provision of automatic fire suppression systems in healthcare buildings.

Note: In some circumstances there may still be a case for the provision of automatic fire suppression systems due to the strategic healthcare value of a particular facility. This issue was not part of the cost benefit study report which was concerned only with life safety considerations.

18. A copy of the Building Standards Division report can be found at: <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubresearch/researchfire/firesuphealth>
19. NHS CEL 25 (2008) included as an Annexe a clarification of the current position in regard to the provision of fire suppression systems in healthcare premises which set out clearly the position of the Fire Safety Advisory Group of Health Facilities Scotland in regard to the SHTM 82: Supplement A guidance in the context of media coverage in recent years. An updated copy of this paper taking into account the Building Standards Division report is again attached to the revised Policy document at [Annexe D](#) as a useful source of information.
20. Project Teams and others engaged in the design of major works are reminded of the need to undertake detailed risk analysis of proposed designs on an individual project basis to determine the need for fitting of fire suppression systems in high-risk areas, in accordance with the guidance contained within Section 2B of the Non-domestic Technical Handbook to the Building (Scotland) Regulations 2004 and Scottish Health Technical Memorandum 82: Supplement A - 'Automatic Fire Control Systems and Alarm Systems. It is advisable that the process of doing so is properly recorded.

Yours sincerely



**Mike Baxter**  
**Deputy Director, Capital and Facilities**



# **FIRE SAFETY POLICY** **for** **NHSScotland**

Directorate for Health Finance and Information  
Capital and Facilities Division  
2011

## Purpose

- The purpose of this document is to provide all NHSScotland Bodies<sup>1</sup> with an unambiguous statement of fire safety policy.

## Aim

- The Scottish Government Health Directorate's (SGHD) Fire Safety Policy for NHSScotland 2011 aims:
  - to minimise the incidence of fire from within those premises from which NHS services are delivered in Scotland.
  - to ensure that fire the safety statutory compliance and performance of assets is appropriately recorded, monitored, reported and reviewed and, where appropriate, improved.
  - to ensure an effective approach to risk management and service continuity.

## Scope

The Scottish Government Health Directorate's Fire Safety Policy for NHSScotland 2011 will be implemented throughout healthcare premises owned, occupied or managed by NHSScotland Bodies and throughout premises which are utilised for the treatment and care of NHS patients in Scotland. However, the Mandatory Requirements of this Policy (**Annexe B**) and its supporting guidance in the form of 'Practical Fire Safety Guide for Healthcare Premises' and NHSScotland Firecode, specifically apply to those premises from where healthcare is provided and within which the treatment of persons suffering from an illness or mental or physical disability is carried out and who may therefore be dependent on others for their safety in the event of fire. Fire safety is especially important in those premises which provide sleeping accommodation, such as hospital wards.

The model of healthcare provision in Scotland is undergoing change. Increasingly, we will see the implementation of strategies which will result in multi-functional premises within a community setting, housing staff from NHSScotland, Local Authorities and others such as Independent Contractors. NHS Board and Operating Division fire safety strategies and policies must recognise that in such environments it would be unrealistic to expect fire safety management to differ for each of the staff groups occupying the facility. Therefore such strategies and policies must be formulated in liaison with the service providers sharing the facility and take cognisance of this Policy whilst considering their own statutory obligations. If appropriate to the type of care provision, the Mandatory Requirements at Annexe B and supporting operational guidance should also be considered. **All policies and strategies should be administered and imposed by those with responsibility for management of the building. Cooperation between persons with fire safety responsibilities in the above context is a fundamental requirement of the Fire Safety (Scotland) Regulations 2006.**

<sup>1</sup> NHSScotland Bodies in the context of this document means all Health Boards, Special Health Boards and the Common Services Agency performing functions on behalf of Scottish Ministers

## Policy

**Statement 1** All NHSScotland Bodies must comply with all statutes bearing upon the fire safety of staff, patients and visitors and the buildings or parts thereof which they occupy from which healthcare is provided.

**Statement 2** All NHSScotland Bodies commissioning new or existing healthcare premises for owner occupation, leasing buildings from another party or occupying buildings provided under a Public/Private Partnership or third party contract must ensure that there is close collaboration between all those who have an interest in the fire safety provisions of the proposed premises at the earliest stage in the design and, be satisfied that all such premises comply with all statutes bearing upon fire safety.

**Statement 3** All NHSScotland Bodies commissioning new healthcare buildings for owner occupation, leasing newly constructed buildings from another party or occupying buildings provided under a Public/Private Partnership contract must be satisfied that all design and construction works of such buildings comply with all statutes bearing upon the fire safety of newly constructed buildings.  
**Note:** See additional management guidance at [Annexe C](#).

**Statement 4** The SGHD must identify all mandatory requirements necessary to underpin statutory obligations having regard for the particular nature of premises from which healthcare is provided and used for the treatment of persons suffering from an illness or mental or physical disability.

**Statement 5** All NHS premises new or existing, owned, occupied or managed by NHSScotland Bodies must be managed in accordance with the mandatory requirements set out hereafter at [Annexe B](#).

**Statement 6** The Scottish Government has provided guidance on compliance with those aspects of statutory and mandatory requirements which are particular to those premises from which healthcare is provided and used for the treatment of persons suffering from an illness or mental or physical disability; the 'Practical Fire Safety Guide for Healthcare Premises' and, NHSScotland Firecode guidance as issued by Health Facilities Scotland. Parts of NHSScotland premises may be put to a functional use other than the treatment of persons suffering from an illness or mental or physical disability in which case an alternative sector-specific Practical Fire Safety Guide may be more appropriate.

**Statement 7** Scottish Fire and Rescue Authorities are required by virtue of the Fire (Scotland) Act 2005: Part 3: S61(2) – 'Enforcing Authorities' to have regard to the content of the Scottish Government's Practical Fire Safety Guides in their enforcement duty. They should also have an awareness of and, take into account, the Fire Safety Policy for NHSScotland 2011 when dealing with healthcare buildings owned, occupied or managed by NHSScotland.

## MANDATORY REQUIREMENTS (Policy Statement 4)

### Introduction

1. Fire safety is not necessarily a stand-alone issue but one to be dealt with equally alongside others in the overall risk management of health and safety matters. However, fire in a hospital or in other healthcare buildings can be especially serious because of the difficulties and dangers associated with the emergency evacuation of patients, many of whom will be highly dependent. For this reason the mandatory requirements set out hereafter must be complied with. They apply to all Chief Executives with operational responsibility for the delivery of healthcare, who also have a responsibility to ensure patients can be transferred to a place of safety without external intervention.

### Requirements

#### General

2. NHSScotland Bodies must have a clearly defined fire safety operational policy covering all buildings which they own, occupy or manage, including community workplace activities.
3. NHSScotland Bodies must use the 3i Studio “Fire Manager” module of the NHSScotland Asset Management System as the primary means of meeting the aims of this policy in the context of strategic and operational management of fire safety matters and the statutory requirement to conduct fire risk assessments.
4. NHSScotland Bodies must have an effective fire safety management system which provides for:
  - the preparation and upkeep of fire safety operational policies and the coordination of fire safety management throughout all NHS parts of those premises owned, occupied or managed by NHSScotland;
  - the development of fire safety strategies which take account of the requirements of the Disability Discrimination Act;
  - means of ensuring emergency evacuation procedures for all NHS parts of those premises owned, occupied or managed by NHS Scotland;
  - means of ensuring that appropriate emergency response teams are established and that sufficient staff are available at all times to provide assistance with evacuation in a fire emergency from those NHS parts of premises owned, occupied or managed by NHS Scotland;  
*NB: In small premises a fire response team may not be necessary e.g. community premises, healthcentres etc. However, arrangements must be made to ensure alarms of fire are appropriately responded*



*to and supervised, including arrangements for evacuation, liaising with the Fire and Rescue Service and, re-setting alarms etc.*

- means of ensuring that procedures are in place to undertake and review fire safety risk assessments and record outcomes in accordance with the Fire (Scotland) Act 2005 and related subordinate legislation within NHS parts of all premises owned, occupied or managed by NHS Scotland;
- means of ensuring that procedures are in place to provide appropriate and sufficient training based on a formal analysis of the training needs of persons in the particular facility being considered;
- means of ensuring that adequate training exercises are undertaken, at a frequency appropriate to the identified risk, for the fire response teams and other staff who are involved in patient evacuation;
- means of ensuring that whenever buildings or parts thereof occupied by a NHSScotland Body are in use, the senior members of staff present, or duty officers, have an appointed responsibility for fire safety consistent with the requirements of the Fire (Scotland) Act 2005 as amended and that they are provided with appropriate training to enable them to undertake their duties effectively. In joint occupancy environments, other stakeholders have the same statutory obligations;
- means of ensuring that when procuring services from third-party providers, the physical fire safety measures of the premises intended for supply of those services are adequate and, that the management, staff training and evacuation arrangements (including numbers of day and night staff) are appropriate for the safety of patients and staff who may be placed in that facility. **NHSScotland Bodies must consider whether a thorough fire safety audit of the premises prior to such placements is appropriate in such instances.**
- means of receiving reports of all fire incidents from the NHSScotland Body's Fire Safety Adviser, informing the Executive Director or Chief Executive as appropriate of their contents, arranging for them to be acted upon and, in the case of serious incidents reported to relevant authorities as specified in Para 8 of these Mandatory Requirements.

### Governance

5. NHSScotland Bodies must appoint a suitably qualified Nominated Officer (Fire) to be responsible for all fire safety matters at a strategic level, except that their responsibility shall not replace the duty holder responsibilities of others specified in the Fire (Scotland) Act 2005 as amended, and supporting regulations.

Note: The position of Nominated Officer (fire) may be supplemented by the appointment of Deputies as necessary to assist and support the Nominated Officer (fire) in larger Board areas.

6. NHSScotland Bodies must ensure that the appointed Nominated Officer (Fire) and Deputies, where appointed, shall:

- receive sufficient training to enable them to undertake their fire safety duties and fully understand the extent of their responsibilities;
- ensure that suitable and efficient fire safety risk assessments are undertaken in relation to the estate for which they have responsibility;
- ensure the findings of fire safety risk assessments are appropriately acted upon and followed;
- ensure fire safety risk assessments are regularly reviewed;
- monitor all fire safety provisions including the provision and review of local fire evacuation plans, staff training at all levels, the keeping of records in relation to the testing and maintenance of systems and staff training and fire drills;
- ensure that regular reports of the fire safety performance of the organisation are provided to the Executive Director with fire safety responsibility;
- receive reports of fire and unwanted fire signals and shall instigate and monitor actions to mitigate the potential for their recurrence;
- liaise with the Fire Safety Adviser in regard to these and any other relevant fire safety matters.

7. NHSScotland Bodies must appoint a specialist Fire Safety Adviser to provide specialist technical support, including:

- advising on the application of the provisions of legislation, NHSScotland Fire Safety Management, NHSScotland Firecode and other appropriate guidance in respect of fire safety in premises owned, occupied or managed by the NHSScotland Body;
- involvement with appropriate staff in fire safety audits and fire safety risk assessments and recording and, assisting with reports to management;
- preparing training programmes, organising regular fire drills and staff training, witnessing the effectiveness or otherwise of fire drills;
- recommending remedial action when necessary and arranging for accurate records of staff training and fire drills to be kept centrally;

- managing and supervising the provision, siting and maintenance of all fire fighting equipment, fire safety signs and notices;
  - keeping records of all fire incidents and ensuring that fire reports are prepared and reported as necessary;
  - managing the work of assistant fire safety advisers and other fire safety staff, where necessary;
  - where applicable, advising on the specific and more onerous requirements of patients who are detained, for their own safety and/or the safety of others, in a secure environment.
8. NHSScotland Bodies must report fires involving death or serious injury to the Health and Safety Executive under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995. **In addition, all fires involving death, injury, or damage which results in significant disruption to patient services must be notified immediately by telephone, fax or email to:**
- Head of Asset Management  
Capital and Facilities  
Directorate for Health Finance and Information  
Scottish Government  
St Andrew's House  
Regent Road  
Edinburgh  
EH1 3DG  
Email: [bettina.sizeland@scotland.gsi.gov.uk](mailto:bettina.sizeland@scotland.gsi.gov.uk)  
(Tel: 0131 244 2383)  
(Fax: 0131 244 2371)
- (Note: Minor fire incidents and alarm incidents are not required to be reported to SGHD.)
9. **This must be followed up by a detailed report of the fire to SGHD Capital and Facilities Division as soon as is reasonably practicable. If further information is likely to emerge from ongoing enquiries, this should be indicated and the material forwarded to SGHD as soon as possible.**
10. The 3i Studio “Fire Manager” module must be used to record data on actual fire safety performance outcomes such as alarm incidents, unwanted fire signals, primary and secondary fire incidents. This will ensure consistency in the general reporting of fire-related incidents throughout NHSScotland.
11. All outbreaks of fire must also be reported internally and actions identified to ensure that all possible lessons are learned in order to mitigate the risk of reoccurrence.

## REFERENCES

**Firelaw website (including sector-specific Fire Safety Guides)**

<http://www.infoscotland.com/firelaw/>

**Scottish Building Standards Technical Handbook for Non-Domestic Buildings**

<http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards>

**NHSScotland Firecode**

<http://www.hfs.scot.nhs.uk/>

**Scottish Government Health Directorates Capital and Facilities Division**

<http://www.pcpd.scot.nhs.uk/>

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## New facilities - Fire safety management guidance

### Introduction

Recent experience in the lead up to hand over of new hospital facilities has identified a number of significant issues in regard to fire safety management that must be considered during the lead in period to commissioning.

This Annexe identifies the issues that should be considered or met in order to address the issue of fire safety during this critical period. The Fire (Scotland) Act 2005 as amended and supplementary regulations are a key driver in regard to the need for these arrangements, as the provisions of the new Act and Regulations are applicable to relevant occupied buildings in which persons are employed.

Key fire safety management decisions should be made, and relevant fire safety information developed and gathered in regard to installed systems and components, during the lead up to hand over of new health facilities. Much of the operational development of local policy, departmental procedures and training of staff prior to opening the facility to patients will necessarily be undertaken by the fire safety adviser/s, in consultation with relevant management staff. However, to ensure that the essential operational processes are consistent and co-ordinated with other commissioning and operational activities during this project period it is important that organisational roles and functions are established, so that the fire safety arrangements are properly managed and addressed in the transition from a procurement project to an operational healthcare facility.

This additional guidance extends the management guidance contained in the Fire Safety Policy for NHS Scotland 2011 [CEL 11 (2011)] to take account of the issues previously identified.

### Proposal

It is proposed that NHS Scotland Firecode, SHTM 81: 'Fire precautions in new hospitals' should be amended to include reference to the issue, citing this policy Annexe guidance, to draw attention to the need for the earliest possible appointment of staff to key fire safety management roles, prior to the commissioning and hand over phases of new build projects.

### Guidance

The fire safety obligations set out in the Fire (Scotland) Act 2005 as amended and the Fire Safety (Scotland) Regulations 2006, are applicable where NHS Scotland staff are employed in a new building that is in the process of commissioning fire safety and other systems, in the lead up period prior to official hand over. It is also necessary to ensure that immediately on occupation by staff and patients as an operational healthcare facility, all the required statutory and mandatory facilities for fire safety are in place e.g. fire policy,

procedures for all functioning wards, departments and other areas, fire alarm and other fire safety systems and installations, routine testing and maintenance arrangements, staff training and familiarisation with the new building and procedures for evacuating patients etc.

Buildings under construction generally, and those in the final stages of a project leading up to hand over are particularly vulnerable because fire safety systems, in particular fire alarm and automatic fire detection, may still be subject to ongoing commissioning tests, programming or calibration and similar finishing works, and therefore may not be fully operational. Other components of the fire safety systems for the building, including components of the structure itself such as the fire stopping of compartment boundaries, may also be subject to ongoing adjustment and/or finishing works. Consequently, the fire protection components of the building may not collectively provide the comprehensive level of integrated protection that will be expected when the building is fully operational.

During this project phase the building/s in question will almost certainly be occupied by employees of a number of different employers and will be subject to periodic site visits by a number of other building professionals e.g. the NHS body procuring the facility, the main contractor/s, sub contractors, system commissioning specialists, medical equipment installers, local authority building control officers and architects etc.

In this context, NHS bodies jointly occupying premises with others, must have particular regard to the Fire Safety (Scotland) Regulations 2006, para 21, headed 'Co-operation and co-ordination'. This sets out a requirement to consult with others and share fire safety information to ensure that the fire safety arrangements are properly co-ordinated and collectively understood by all the parties using the building.

In order to ensure that the statutory obligations are met during the lead up to handover and during the commissioning period, the following additional guidance and advice for procuring Boards is provided.

1. A fire safety management structure should be put in place by the procuring NHS Board, sufficient to meet the statutory obligations previously described and the mandatory requirements of this policy, in the period preceding the occupation of new healthcare facilities, and the appointments detailed in paras 5, 6 and 7 of Annexe B; Mandatory Requirements; CEL 11 (2011), should be made.

The appointments are:

- Nominated Officer (fire) – to have strategic responsibility for fire safety.
  - Fire Safety Adviser – to undertake fire safety tasks as identified in CEL 11 (2011)
2. The appointments should be made sufficient early, prior to final handover and the commissioning phase of fire safety systems, to provide sufficient time for the development of an operational fire strategy, local fire policy and the individual fire safety procedures that will necessarily have to cover a range of departments, wards, operating departments, public areas etc. In larger projects the development of policy and procedures, in addition to the induction training for staff who will be employed in the new facility, will take some time and careful consideration should be given to this issue. It is possible that a lead up time of a full year might not be unreasonable in some cases.

3. It is recommended that the interim fire safety arrangements should be agreed and properly recorded, in consultation with the main and other relevant contractors or occupiers, so that specific responsibilities for fire safety are identified and a line of communication agreed and established.
4. It may be appropriate, particularly in regard to large sites where a phased hand over may be implemented, the pre hand over time is extended or the facility is complex, to arrange regular meetings with those jointly occupying the site, to ensure that fire safety matters are not overlooked in the range and complexity of matters to be dealt with during this phase of the project.
5. During the pre hand over period, regard must be had to the statutory requirements of the Fire (Scotland) Act 2005 as amended and the Fire Safety (Scotland) Regulations 2006, in particular the specific requirement of the Regulations, para 21. headed 'Co-operation and co-ordination'.
6. The provisions of the Act, in particular the section 53, 54, 55 and 56 duties will also be applicable during the pre handover period of occupation and should therefore be complied with.

The core duty to conduct a fire risk assessment must therefore be met, recorded and acted upon, however it will be necessary to consult with and agree particular procedures in regard to other occupier activities, and contingency arrangements to accommodate commissioning and other works that are ongoing. This assessment is therefore likely to be an interim assessment, applicable to the specific circumstances prevailing during the pre handover phase of the project.

NOTE : Contractors arrangements such as site signing in arrangements, security arrangements on site, temporary fire alarm provisions, communication arrangements for contacting the Fire & Rescue Service in the event of fire, disposal of site waste materials, assembly areas etc. may still be active and in place. These arrangements may therefore be adopted, subject to joint agreement, and form a component of the fire risk assessment and interim procedures, for so long as they remain appropriate for the prevailing circumstances. However, as the project progresses towards final completion and full hand over, the assessment must be kept under regular review to ensure it continues to meet the changing site circumstances.

7. Nominated Officers (fire) and Fire Safety Advisers should ensure that the commissioning process for fire safety installations and other systems such as the fire stopping of compartment walls, certificates of test for building components such as fire doors etc, is carefully monitored and supervised and that the relevant commissioning and test certification documentation, including product installation and use, routine testing requirements and performance information, is kept as a permanent reference record of the installed components. Sight of documentation relating to fire safety installations and systems may subsequently be required by a statutory auditing authority.

8. The objective of these arrangements is to make the transition from a building in the final phase of construction and commissioning to a fully operational health facility as seamless as possible, so that when operational staff of the NHS Scotland procuring body take occupation and assume responsibility for the provision of healthcare from the new facility, staff have already received appropriate fire safety induction training, agreed policy and procedures are in place, and the appropriate fire risk assessment(s) are in place.
9. These operational and management components of the process are required under the terms of the statutes previously referred to, and have immediate effect from the moment of occupation.

This guidance is provided in that context and is intended to ensure that procuring Health Boards and those involved in the project management process are aware of the need to meet their statutory obligations throughout the commissioning and hand over stages, and subsequent occupation of the project.

10. In view of the progressive and continuously evolving nature of the building during the lead in stage to final hand over, and the Fire and Rescue Service interest in their capacity as the enforcing authority who may conduct a statutory audit at any reasonable time, it is recommended that consultation with them is established at an early stage. This will help to ensure that any fire safety measures being adopted in the lead in phase are consistent with the compliance expectations of that authority, and will also help to ensure that the management processes, policy and procedures, and other measures that will be adopted when the building is fully operational, are consistent with their statutory expectations.
11. The Fire Safety Adviser in consultation with the Nominated Officer (fire) and Department Managers will need to consider the fire safety training requirements of staff who will occupy the new facility, and put in place a programme to ensure that staff is aware of the procedure to adopt in the event of fire, from the first day of occupancy. Staff familiarity with the premises layout, escape routes and the fire safety systems provided for their safety as well as the procedures, policy and management arrangements must form an important component of their induction.
12. In view of the ongoing activities of contractors and others in the building during the lead in phase to hand over, frequent walk round inspections should be undertaken, perhaps on a daily basis according to an agreed arrangement, in order to ensure escape routes are safe to use in an emergency, the use and storage of hazardous materials is appropriately controlled, hot works are subject to appropriate permit controls and monitored to ensure the conditions of use are met, waste materials are not accumulated inappropriately and other fire safety provisions are effectively maintained.

Reporting lines for dealing with day to day deficiencies should be clearly determined and understood so that there is no doubt as to who will be responsible for dealing with them, and who has the appropriate authority to direct actions and issue instructions to remedy failures.



This guidance should enable procuring Boards to avoid significant problems that might possibly be encountered following occupation of a new healthcare facility, having specific regard to their statutory obligations and the likely interest that Fire and Rescue Service will express in their capacity as the enforcing authority when, or before, the building is handed over. Failure to recognise and act proactively on their regulatory responsibilities has a significant potential for legal sanctions to be applied, the extent of which would be determined by the Fire and Rescue authority according to the degree of failure they identify.

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# Fire suppression systems in NHSScotland

NSS : Health Facilities Scotland

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Gordon Allen

National Fire Safety Adviser

## ABSTRACT

A position paper examining current guidance in regard to the provision of fire suppression systems in NHS healthcare premises in Scotland, setting out the agreed view of the HFS Fire Safety Advisory Group.

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**Fire suppression systems in healthcare premises**
**1. Introduction and scope**

The review of this paper has been undertaken in accordance with the provisions of para 6.10 of the original 2008 position paper i.e. *asserting that reviews would be undertaken to reflect significant developments that may impact on the findings of the paper.*

A report titled ‘*Cost benefit assessment of installing sprinklers in new hospital buildings*’ was commissioned by the Building Standards Division of the Scottish Government Directorate of the Built Environment, and subsequently published in September 2009. This report supported the review of the building standards then being undertaken.

The review of this paper therefore takes account of the cost benefit analysis in so far as it may impact on the position adopted by the Fire Safety Advisory Group (FSAG) and further updates some of the related information to reflect the position as at November 2010.

The review continues to reflect the position and views of the Fire Safety Advisory Group (FSAG) in regard to the adoption or otherwise of fire suppression systems as a component of the fire strategy recommended for hospitals and other healthcare premises in NHSScotland. It follows further discussion within the FSAG on the content of the Building Standards Division report in the context of its impact on the NHSScotland position paper, and the possible impact on the guidance standards provided in Firecode SHTM 82: Supplement A.

- 1.1 This review is consistent with the remit and terms of reference of the Fire Safety Advisory Group (FSAG).

- 1.2 This paper represents the agreed outcome of the Fire Safety Advisory Group in regard to their position at this time on the question of the provision of fire suppression systems in NHSScotland healthcare premises.

In doing so it continues to recognise that future developments and research in areas such as building design, materials technology, management and fire safety strategies, legislation including building standards, fire policy, fire suppression and other systems technology, may in the future impact on the content of this document and the position of the group as expressed in this paper.

- 1.3 In view of this, the FSAG undertakes to review this paper from time to time and when necessary in the light of relevant technical or other developments.

## 2. Current adoption of fire suppression systems

- 2.1 At this time some 16 healthcare premises in Scotland are known to have fire suppression sprinkler systems installed, with a further 7 projects in which systems have been agreed or are under active consideration as part of the fire safety strategy. 19 of these systems are installed, or will be, in hospitals, 2 are in community healthcare resource centres and a further 2 are installed to protect strategic asset facilities. 13 of the systems provide partial protection of high-risk areas and 10 cover, or will cover, the whole premises. 2 further systems have yet to be agreed and signed off, and are not counted in these figures. The total number of systems installed or approved for installation is 23. See **Appendix 1**.

At this time data from 6 of the 14 Health Boards in Scotland has not been received, but anecdotally and on the basis of collective local knowledge, it is not expected that these figures will change significantly when data collection is complete, and consequently they are accepted as a fair reflection of the current position.

Appendix 1 has been amended to include two additional systems adopted for specific projects since publication of the 2008 position paper.

- 2.2 Hospitals commonly adopt fire safety engineering solutions in order to permit design flexibility. In such cases prescribed regulatory building standards with respect to fire safety often cannot be met and the resulting engineered fire safety solution will invariably, but not always, require the installation of a fire suppression system, most often a water sprinkler system as component of an alternative fire safety strategy for the proposals in question. There is no professional debate about this and it is an internationally recognised and adopted design methodology fully consistent with regulatory requirements and subject to established procedural and compliance arrangements.
- 2.3 Fire safety principles cannot be distilled simply to the provision of fire suppression systems on the assumption that they alone will provide a universal fire safety solution for all hospitals and healthcare premises. Fire safety is achieved by a comprehensive system of measures, both physical and management, that collectively interact to provide a comprehensive system of fire safety, taking account of the building design, human behaviour in fire conditions and escape arrangements,

management arrangements such as staffing levels, training and fire response, the abilities and disabilities of patients, the fire performance of the materials the building itself is made of, the fire load within the building, the potential ignition sources it contains as well as the measures we provide to detect and contain fire when it occurs.

- 2.4 Fire suppression systems, including sprinklers are only one component of this mix of measures, and current guidance suggests that design teams should consider the installation of fire suppression [Firecode SHTM 82: Supplement A]. NHS Scotland Firecode is a mandatory standard that Chief Executives are explicitly required to comply with [CEL 11 (2011) Fire Safety Policy for NHSScotland 2011]. Compliance with mandated policy requirements is not optional, and all Boards have in place systems, both resource and management, to ensure their responsibility is met. The FSAG is confident that fire suppression systems are routinely considered in major projects and installed where identified as essential. Evidence to this effect may be identified in **Appendix 1**.
- 2.5 Whether or not sprinklers are appropriate is a matter for relevant architectural and design team professionals, including fire engineers, who should identify their design considerations and conclusions in a fire strategy for the project in question. Clearly, the provision of fire sprinklers, as part of a fire safety strategy, is project specific on a case-by-case basis and should be considered alongside the need to comply with statutory standards and the complexity of structural, environmental and management issues. Existing evidence would appear to suggest that fire suppression systems are routinely considered as a component of the design fire strategy in relevant projects. However, it is recognised that it is unlikely that in smaller premises a life safety or economic asset protection case in favour of fire suppression could be justified.

### 3. Traditional healthcare fire safety strategy

- 3.1 There is no empirical evidence to suggest that the traditional fire safety strategy, embedded at the heart of Firecode and in the regulatory building control system, is not effective. Life loss and significant fire injuries are difficult to identify, beyond those unfortunate cases where patients smoke against all advice to the contrary whilst receiving oxygen therapy; or cause self-harming fires in the mental health sector. These situations are very difficult and distressing for staff to manage and control as patients predisposed to smoke will invariably find a way of doing so. Fire sprinklers are unlikely to have a significant impact on the outcome for those unfortunate persons affected by this type of fire. The 'passive' nature of fire suppression in the ready state would certainly not reduce the number or frequency of events in these circumstances, as systems only become 'active' in response to a significant flaming source already causing life-threatening harm to the individual concerned.
- 3.2 Sprinkler systems are not designed or intended to protect an individual directly involved at the source of a fire, especially when the fire is significantly oxygen enhanced; but can be helpful in protecting those immediately adjacent by providing additional time for staff to facilitate their escape where the required escape time is unlikely to be viable (ASET vs. RSET – available safe egress time vs.

required safe egress time). As the majority of fatalities and persons harmed by fire in NHSScotland premises fall into the category described i.e. persons directly involved at the fire source, it is concluded that the wider installation of fire suppression systems would have minimal impact on the frequency or outcome of the most common type of 'harm' incidents.

- 3.3 Current strategies have evolved, based on strong evidence to suggest that they facilitate early and effective evacuation. In particular, the principle of progressive horizontal evacuation is a core component of the fire strategy adopted in hospitals throughout the United Kingdom. This is highly dependent on sufficient structural fire compartments being available to accommodate patients evacuated from an adjacent compartment and to provide alternative escape options. Evidence regarding hospital fires indicates the effectiveness of this strategy and may be identified in a number of incidents including Warrington General Hospital, 2002 and more recently at the Royal Marsden in London, and the four subsequent major incidents detailed in the *Review of five London hospital fires and their management Jan. 2008 – Feb. 2009; NHS London; Sept. 2009*, where in each case evacuation was successful despite the particular seriousness of these incidents. Clearly it would be disingenuous to suggest that an effective suppression system would not have been beneficial in all of these, and other, cases. It is equally valid to identify that whilst these fires were very clearly 'near miss' events, the traditional design for escape was nevertheless robust and effective in very trying circumstances. The absence of a fire suppression system did not affect the life safety outcome in any of these events; but would almost certainly have had an impact on the extent of asset damage and the ease of intervention and fire control exercised by the Fire and Rescue Service.
- 3.4 Minor harm usually involving staff, due to smoke inhalation is commonly recorded whether or not sprinklers are installed as staff will, by the nature of their duty and the tasks they are confronted with, have to assist the evacuation of patients and will routinely re-enter the premises repeatedly to do so. Sprinkler systems will not change that, as it is inherent in the nature of fire and the evacuation needs of patients, that staff will be exposed to a greater or lesser degree to the products of fire i.e. smoke. It is rare for such exposures to result in significant harm.
- 3.5 The design trade off common in other occupancy groups, in regard to compartment numbers and their size, is not viable to the same extent in healthcare premises containing in-patients as the provision of a specified number of compartments and their size is a fundamental component of the escape strategy, in addition to their core purpose of containing fire and restricting the potential for fire spread. This additional purpose is crucially important for refuge as a component of horizontal escape in hospitals, but not normally in other occupancy groups to anything like the same extent. Therefore the compartment design components will normally still be required, whether or not fire a fire suppression system is installed. It must also be noted that sprinkler systems will contain and control fire very effectively, but will not prevent the passage of smoke and other products, although their volumes and toxicity will be reduced to some extent. In managing patient evacuations, it is most

likely to be this component of a fire event that will present the greatest impediment to evacuation success, as opposed to the fire itself.

- 3.6 The FSAG strongly supports the existing escape strategy of progressive horizontal escape as it has evolved and been thoroughly embedded in design guidance and the building regulatory system for in-patient healthcare buildings. At this time, the provision of fire suppression systems should be identified as a separate issue, and should not be used as a measure to trade against the traditional horizontal compartment based escape and refuge provisions. In any case, any deviation from the traditional escape model should only be considered on an evidential basis following thorough research, scrutiny and evaluation. This is of particular importance when considering and developing a fire engineering strategy for new hospital proposals.

#### 4. Health Facilities Scotland

- 4.1 Health Facilities Scotland is absolutely committed to ensuring that the guidance they provide for NHSScotland is fit for purpose and risk appropriate, having regard to the control and reduction of the fire risk in NHS facilities.

- 4.2 The update of NHSScotland Firecode is a core responsibility of NSS, Health Facilities Scotland. The documents are continuously and routinely updated and developed in the light of technological, research, managerial and operational developments, in consultation with both NHSScotland and other stakeholders, including members of the HFS Fire Safety Advisory Group. Membership of this group is drawn not only from NHSScotland but includes other relevant professionals from the Directorate of the Built Environment, Building Standards Division, NHS Northern Ireland, Scottish Government Health Directorates, Chief Fire Officers Association Scotland and elsewhere as necessary on an ad hoc basis. See **Appendix 2**.

- 4.3 The fire suppression guidance document Firecode SHTM 82: Supplement A, was commissioned by HFS based on guidance from the FSAG who identified that there was a need for fire suppression guidance in the Firecode suite. It was subsequently developed in collaboration with the Fire Engineering Dept of Caledonian University. A draft document underwent a wide consultation process prior to final publication. It therefore has a sound fire engineering pedigree, having been developed by fire engineers of high national and international standing.

This guidance document was, at the time of publication, the first to be adopted for healthcare in the United Kingdom, clear evidence that fire safety standards in NHSScotland are progressive and have promoted the adoption of fire suppression systems, engaging designers by requiring them to consider their inclusion as a component of the fire strategy in healthcare design schemes; see **Appendix 1**.

It stops short of explicitly requiring their inclusion because it is widely recognised that for some premises a fire suppression system would contribute little to the overall reduction of life risk; such circumstances may include;

- Where a conventional strategy provides adequate and appropriate escape arrangements, the 'time to escape' is viable, and the premises comply in full with all building regulatory standards, in addition to other NHSScotland Firecode standards.
- There are no high hazard adjacencies i.e. no departments or areas containing a high fire risk immediately adjacent, vertically or horizontally, to the patient care areas being considered.
- A potential for significant delayed evacuation is not identified i.e. there are very limited numbers of 'very high' and 'high' risk patients, and the majority of the persons likely to be present are 'acceptable' risk as defined in SHTM 86: Part 2: Fire Risk Assessment in Healthcare Premises.
- The premises are small, ground floor only, a fire engineering strategy has not been used, all other fire safety provisions are to a high standard, and staffing levels are adequate at all times.

**NB:** This list is indicative and these, or other relevant issues, may be taken into account by those involved in developing the fire strategy for the particular project in question. The development of the fire strategy will be undertaken by a properly qualified fire engineer who is competent to understand the relevant circumstances essential to determine whether or not a fire suppression system is necessary.

The variety, range, types of premises, their uses and occupancy profiles within the wider NHSScotland estate indicates that a general guidance benchmark imposing the generic adoption of fire suppression systems in healthcare premises would be very difficult to specify and inappropriate, on the basis of the available life safety evidence.

4.4 An examination of national fire data identifies the low number of significant fires in relation to the size of the NHS estate, and the statistical data stands in favourable comparison with any occupancy sector.

In 2005, of 65 fatalities from fire nationally, 58 occurred in dwellings and 6 in outdoor locations. Only 1 fatality occurred in premises other than a dwelling. It is therefore presumed that the 'other' range of premises included healthcare premises as they are not identified as a separate occupancy category in the collated data.

The level of fatalities and injuries from fire in healthcare premises is extremely low by any measure, and this must be recognised when assessing fire safety performance outcomes. Proposals in regard to the need and provision of fire suppression systems in healthcare buildings must be considered in that context. Indeed, it is likely that any improvements of fire safety performance in these key areas would be very difficult to achieve and measure, irrespective of the measures put in place.

<http://www.scotland.gov.uk/publications/2007/03/22111518>

See also extract of figures in **Appendix 3**.



**Note :** *The value of fire suppression in relation to the protection of strategic assets and for the control or extinguishing of fire whether or not life safety is the predominant issue, is acknowledged.*

### 5. The statutory position

5.1 A statutory obligation exists under the terms of the Fire (Scotland) Act 2005 and supporting regulations to meet an acceptable standard of fire safety in all NHSScotland premises, an obligation that is enforced and audited by the Fire and Rescue authorities.

Audits have been conducted across the NHSScotland estate in every Board area since the advent of the Act.

5.2 Fire & Rescue authorities widely express support for the adoption of fire suppression systems whenever the opportunity arises; and are on the public record as having done so in regard to the healthcare sector. However this is not consistent with the published Scottish Government, Practical Fire Safety Guidance for Healthcare Premises to support statutory compliance in healthcare premises. Responses to the consultation on the published guidance from every Fire and Rescue Service in Scotland and CFOA to both the Scottish Government, Practical Fire Safety Guidance for Healthcare Premises and NHSScotland Firecode SHTM 85, did not include any significant reference to this matter and provided no indication that they were minded to recommend the generic inclusion of fire suppression systems in hospital premises. (See also Note; para 6.3)

5.4 In regard to Building Standards, the non-domestic Technical Handbook (annex 2.B) details the fire hazard departments, areas and rooms where an automatic fire suppression system is required. Specified departments and rooms include those that are directly below or directly adjoin operating theatres, intensive therapy units or special care baby units.

All projects will in any case be subject to this standard and must, as a matter of statutory compliance, conform to this standard in so far as they apply to any specific project. In these cases compliance is not optional or negotiable.

### 6. Cost benefit assessment of installing sprinklers in new hospital buildings.

Commissioned by Directorate for the Built Environment: Building Standards Division; undertaken by Optimal Economics; published September 2009. The report may be accessed in full at <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards>

The report is of some significance, in view of the very specific remit to examine the possible benefit of installing fire sprinklers in new healthcare premises in Scotland, taking into account the cost effectiveness and, it is appropriate that the FSAG considers in detail the resulting conclusions.

### Executive summary

**Paras 5 /6.** It is interesting to note that an analysis of the number of fires covering the period 2001/2 to 2007/8 indicates that there was no loss of life in any NHS Scotland healthcare premises in this period, and the number of fires in the period 2001 to 2006 showed a reduction of 34% from a high of 278 to 184. It may be concluded that this is at least an indicator of a consistent improvement of overall fire safety performance. However, it is also acknowledged that there may be many reasons for this, such as a continuous development within the estate and a reduction in the number of older buildings, and also that such figures must be treated with some caution as annual variations, both up and down, do occur.

**Paras 7/14.** In the period 2001 to 2008, it is noted that fire suppression systems have been installed in some premises where there was no regulatory requirement to do so, and in four projects systems have been installed covering the entire building.

This would appear to be consistent with our own finding that systems are routinely considered for buildings and, that they may be installed for strategic reasons other than simply meeting the regulatory obligation.

**Paras 11/20.** The methodology is clearly summarised and, the resulting conclusions are unambiguous i.e. that the costs involved in installing systems in new hospitals exceed the monetised benefits.

### The report

The report is comprehensive and thorough and sets out clearly the structure of the research, including specific data. It is sufficient for this report to identify that FSAG are satisfied as to the research methodology and presentation of the findings and conclusions.

### FSAG considerations

- The FSAG accepts the findings and conclusions and notes that the conclusions are broadly consistent with the views expressed elsewhere in this paper. However it should be recognised that the approach in each case is entirely different, and that this paper expresses the position based on the collective operational experience and knowledge of FSAG members.
- The assessment of cost benefit was undertaken on the basis of life safety, and in the context of the possible extension of the existing building regulatory requirements. From the healthcare viewpoint the assessment does not take significant cognisance of strategic healthcare issues that may be of major concern to health authorities i.e. that Boards may wish to protect a particular facility providing a service of national or regional strategic significance and that those services would not be easily replicated elsewhere in the event of loss to fire. The healthcare impact on the community served, or the continuity of an associated service, would be the major

consideration in such circumstances, and where the societal risk is considered high it may be considered appropriate to install fire suppression regardless of direct cost/benefit calculations.

- The outcome of the assessment does not provide sufficient grounds to undertake any significant change to the FSAG conclusions detailed in the 2008 position paper. Minor changes have been made to factual content in the interests of accuracy.

## 6. Conclusion

6.1 The adoption or otherwise of fire suppression for life safety and/or strategic asset protection is clearly a significant issue, and developments in this particular field are not only being closely monitored and considered in a professional and rational way by the HFS Fire Safety Advisory Group in the interests of all those who use NHSScotland buildings, but are actively being adopted where necessary in some projects. Fire suppression systems have a part to play in making NHSScotland healthcare buildings safe from fire and will continue to do so in response to the needs of the service and especially the imperative to ensure the safety from fire of patients, staff and others.

6.2 The available evidence indicates quite clearly that existing strategies contained in Firecode and the building standards are effective and appropriate in fire safety performance terms whether or not fire suppression is added to the mix of mandatory fire safety measures.

6.3 It is particularly notable that when presented with an opportunity to contribute to the development of both the statutory compliance and SHTM 85 guidance during the consultation period neither the CFOA nor Fire and Rescue authorities made significant representations to support the inclusion of fire suppression systems in hospitals.

**Note:** *It is acknowledged that Strathclyde F&RS did comment to the effect that ‘more emphasis’ should be placed on fire suppression systems. However, this short comment, amounting to less than two lines, was not supported by evidence, recommendations, qualifiers or any indication that the proposed guidance was significantly deficient.*

6.4 The Practical Fire Safety Guidance for Healthcare Premises is clear that its contents are not prescriptive and that equivalent standards may be adopted. The Firecode guidance contained in SHTM 82: Supplement A in regard to the consideration of fire suppression systems is consistent with those non-prescriptive principles. A prescriptive recommendation in the guidance to include fire suppression systems in all hospital or healthcare buildings would be entirely inconsistent with the principle that fire safety measures should be ‘risk appropriate’, based on a comprehensive assessment of the risk in each individual case.

6.5 There are clearly many benefits in fire safety terms for adopting fire suppression systems, just as it is equally and technically clear that not all premises would significantly benefit from such installations. An analysis of fatality and harm data clearly indicates that the current NHSScotland fire safety

performance standard is high. However, it is recognised that there are specific hazards related to the therapeutic use of oxygen and additionally in the mental health sector from individual harm as a result of smoking related fires, and fire safety practitioners are certainly not complacent in this regard.

The generic provision of fire suppression systems throughout hospitals is unlikely to resolve these particular problems, and perhaps more importantly is unlikely to lead to any significant improvement in fatality and harm incidents generally in hospitals, simply because the pre-existing fire safety performance level in this regard is already high, and the actual number of such incidents is very low.

6.6 Comparison should not be made with the care home sector as the staffing levels, environmental care conditions and the type and size of premises is not comparable. Care homes typically attempt to replicate as far as possible a homely domestic environment to promote a feeling of well-being and comfort for residents. A significant problem in regard to the fire safety performance of care homes is statistically identifiable, a fact that cannot be similarly identified in regard to hospitals. The building regulatory requirement for fire suppression systems in new care homes clearly reflects the recognised risk factors and statistical evidence of fires in this sector.

6.7 The protection of vulnerable people in public facilities is a very emotive issue and some consideration as to the moral and duty of care value of installing sprinklers should be considered. Fire and Rescue Services are traditionally and understandably predisposed to promote and support the case for installing fire suppression systems and will always advocate sprinklers simply because they are in the business of protecting lives, without qualification.

However, that is not a luxury available to design teams and building professionals. They are equally concerned with the protection of those who use healthcare premises and are professionally aware of their accountability if they fail to do so adequately. In making a determination on such issues they must take into account a range of competing needs, including the need to be convinced on a statutory, fire engineering or other evidence based safety case when a fire suppression system is proposed. This is not an unreasonable position to take and is no different to their position in regard to their consideration of any other safety related proposal.

6.8 This review reaffirms the conclusion of the 2008 position statement that there is not a clear case for a generic requirement to install fire suppression systems in hospitals and other healthcare premises, other than in those cases where they are installed as a component of a verified fire engineering strategy or to protect specific high risk facilities, to enhance available evacuation time, to comply with regulatory requirements, or where they apply or to protect strategically important facilities.

6.9 It is likely that the increasing uptake and installation rate in regard to fire suppression systems in new projects will continue to increase as fire engineering proposals become more commonly adopted in larger projects and an awareness of the value of protecting strategic healthcare facilities grows.

6.10 The HFS Fire Safety Advisory Group believes that the current guidance contained in Firecode SHTM 82: Supplement A is risk appropriate, sufficient and adequate. No grounds are identified at this time that indicates a need to modify the core content of the guidance, although it is recognised that a routine review of the guidance should be undertaken, consistent with the HFS document review programme. The HFS Fire Safety Advisory Group also recognises that future legal, technological or other fire safety developments may have a significant impact on the findings of this review and consequently asserts that the matter will be revisited regularly and whenever necessary. It is also concluded that further research in regard to the provision of fire suppression systems, especially for life safety in healthcare premises, would be welcomed to inform future reviews and guidance development.

The contribution of the assessment commissioned by the Building Standards Division is acknowledged by the FSAG, as it has contributed significantly to the body of knowledge and research evidence used to inform the NHSScotland Firecode guidance produced by HFS.

*End.*

### **Attachments**

Appendix 1. Fire suppression systems in NHS Scotland premises : January 2008

Appendix 2. HFS Fire Safety Advisory Group - membership

Appendix 3. Fires in NHS Scotland premises.

Extract from; The Scottish Government, Publications, Fire statistics Scotland 2005.

## Appendix 1: Fire suppression systems in NHS Scotland premises - Jan 2008

	FACILITY	BOARD	COVERAGE		COMMENTS
			full	partial	
01	Wishaw Gen	Lanarkshire			atria / high risk / kitchens (Ansul systems)
02	Hairmyres Hosp				
03	Coathill Hosp				
04	Caird Ho. Dev.				
05	Kirklands Hosp				
06	Canderside National Distribution Centre	NSS			strategic asset protection.
07	Whitehills Community Hosp	Tayside			water mist
08	Ninewells Hosp				covers large mall and engineering / laundry block.
09	Royal Inf. Ed. Little France	Lothian			ground floor mall area x 9 retail units.
10	Midlothian Community Hosp.				planned / agreed proposals PFI commence 09 /10
11	Western General Hosp.				to cover commercial area of Anne Ferguson building / strategic protection of theatres and wards.
12	Glasgow Royal Inf.				to cover commercial enterprises; shops / pharmacy in main foyer.
13	Central Decontamination Unit	GG&C			strategic asset protection.
14	Golden Jubilee				specific high risk area.
	Southern General (new development)				Component of a fire engineering solution for the new hospital proposals as a whole.
15	RHSC Yorkhill				to protect high life risk. Part two floors and within high risk ITU and HDU; main kitchens/dining rooms.
16	North West Area Centre ; Kilmarnock		Ayrshire & Arran		
17	Crosshouse Resource Centre				Joint venture with East Ayrshire Council. Multiple healthcare / council facilities. Currently being planned.
18	Crosshouse maternity				Full cover.
19	New Girvan Hosp.				Provisional under discussion. Specific hazard area only, pharmacy in foyer.
21		Borders			None known
23		Grampian			One possible re future proposal.
24	Clackmannan new hosp.	Forth Valley			planned / agreed.
25	Larbert new hosp.				specific high risk areas.
26	Falkirk				specific risk areas only
27	Stirling Royal				specific risk areas only
28	Mull & Iona PCC	Highland			Argyll & Bute CHP / NHS Highland (proposed/agreed)
29		Western Isles			None known
30		Orkney			None known
31		Shetland			None known

## Appendix 2: HFS Fire Safety Advisory Group – membership

	Name	Health Board / Agency	Address	Tel No/E-mail
1	Bob McBlain Senior Risk Adviser – Fire Safety	NHS Greater Glasgow and Clyde – Primary Care Division	Gartnavel Royal Hospital 1055 Great Western Road Glasgow	0141 201 3934 <a href="mailto:bob.mcblain@gartnavel.gla.ac.uk">bob.mcblain@gartnavel.gla.ac.uk</a> <a href="http://scot.nhs.uk">scot.nhs.uk</a>
2	Hugh Adie Co-opted Member	Scottish Building Standards Fire and Structure	Denholm House Almondvale Business Park Livingston EH54 6GA	<a href="mailto:hugh.adie@scotland.gsi.gov.uk">hugh.adie@scotland.gsi.gov.uk</a>
3	Gordon Allen National Fire Safety Adviser	Health Facilities Scotland	4 <sup>th</sup> Floor, Empire House 131 West Nile Street Glasgow G1 2RX	Direct line 0141 352 5503 Office enquiry 0141 332 3455 <a href="mailto:gordon.allen@nhs.net">gordon.allen@nhs.net</a>
4	TBC Chief Fire Officers Association (Scotland).			
5	David Browning	NHS Lanarkshire		<a href="mailto:david.browning@lanarkshire.scot.nhs.uk">david.browning@lanarkshire.scot.nhs.uk</a>
6	Dominic Cafolla	Northern Ireland Estates Agency	Stoney Road Dundonald Belfast BT16 1US	028 90 520025 <a href="mailto:Dominic.Cafolla@dhsspsni.gov.uk">Dominic.Cafolla@dhsspsni.gov.uk</a>
7	Ian Grieve	Scottish Government Health Directorates Capital and Facilities	Basement Rear, St Andrews House Regent Road Edinburgh EH1 3DG	0131 244 2777 <a href="mailto:ian.grieve@scotland.gsi.gov.uk">ian.grieve@scotland.gsi.gov.uk</a>
8	Peter Haggarty Assistant Director – Property and Capital Planning	Health Facilities Scotland	4 <sup>th</sup> Floor, Empire House 131 West Nile Street Glasgow G1 2RX	0141 332 3455 <a href="mailto:peterhaggarty@nhs.net">peterhaggarty@nhs.net</a>
9	Mary Anne Kane	NHS Greater Glasgow & Clyde		<a href="mailto:maryanne.kane@ggc.scot.nhs.uk">maryanne.kane@ggc.scot.nhs.uk</a>
10	Mandy Wallace	NHS Greater Glasgow & Clyde		<a href="mailto:mandy.wallace@ggc.scot.nhs.uk">mandy.wallace@ggc.scot.nhs.uk</a>

11	David McGowan	NHS 24	National Waiting Times Centre. Golden Jubilee Clydebank	<a href="mailto:David.McGowan@NHS24.scot.nhs.uk">David.McGowan@NHS24.scot.nhs.uk</a>
12	Barry Liston National Fire Officer	NHS National Services Scotland	Gyle Square 1 South Gyle Crescent Edinburgh EH12 9EB	0131 275 7672 <a href="mailto:barry.liston@csa.scot.nhs.uk">barry.liston@csa.scot.nhs.uk</a>
13	Susan Lowrie [CHAIR] Fire Safety Manager	NHS Grampian		07771 834828 <a href="mailto:susan.lowrie@nhs.net">susan.lowrie@nhs.net</a>
14	Eric Pearson	NHS Ayrshire & Arran		<a href="mailto:eric.pearson@aapct.scot.nhs.uk">eric.pearson@aapct.scot.nhs.uk</a>
15	David Martin	The State Hospital	Carstairs	<a href="mailto:David.Martin@tsh.scot.nhs.uk">David.Martin@tsh.scot.nhs.uk</a>
16	Magnus Flaws	NHS Shetland		<a href="mailto:magnus.flaws@nhs.net">magnus.flaws@nhs.net</a>
17	Clive Armstrong	NHS Lothian	NHS Lothian Western General Hospital	<a href="mailto:clive.armstrong@luht.scot.nhs.uk">clive.armstrong@luht.scot.nhs.uk</a>
18	Harry Marr	NHS Tayside		<a href="mailto:harrymarr@nhs.net">harrymarr@nhs.net</a>
19	Alan McGeachie	NHS Forth Valley	Forth Valley Royal Hosp.	<a href="mailto:alan.mcgeachie@nhs.net">alan.mcgeachie@nhs.net</a>



## APPENDIX 3. Scottish Government: fire data. 2005

Casualties<sup>1</sup> from fires by location group, Scotland, 1996-2005

Casualties										
Year	Fatal					Non-Fatal				
	Total	Location Group				Total	Location Group			
		Dwellings	Other buildings	Outdoor			Dwellings	Other buildings	Outdoor	
				Road Vehicles	Other				Road Vehicles	Other
1996	110	96	7	3	4	2,060	1,746	173	74	67
1997	88	74	4	8	2	2,145	1,861	157	79	48
1998	96	76	2	8	10	2,171	1,853	158	96	64
1999	105	81	6	10	8	2,254	1,996	158	55	45
2000	75	67	2	4	2	2,263	1,999	138	78	48
2001	96	86	2	7	1	2,091	1,799	171	71	50
2002 <sup>2</sup>	77	63	4	7	3	2,045	1,759	184	61	41
2003 <sup>3</sup>	80	61	3	10	6	1,880	1,625	140	69	46
2004	99	76	17	3	3	1,858	1,637	120	57	44
2005	65	58	1	4	2	1,667	1,461	118	53	35

<sup>1</sup> Includes casualties for late call, heat and smoke damage only incidents.

<sup>2</sup> Includes an estimated 65 non-fatal casualties for incidents occurring during ten days of national industrial action in November 2002.

<sup>3</sup> Includes estimates for incidents not recorded during national industrial action in January and February 2003.

# Fires <sup>1,2</sup> by location, detail of buildings, Scotland, 1996-2005

## Annexe D

Fires															
Year	Total buildings	Dwellings <sup>3</sup>	Private garages, sheds etc.	Agricultural Premises	Construction industry premises	Other industrial premises	Retail Distribution	Hotels, boarding houses, hostels etc.	Restaurants, cafés, public houses etc.	Education		Hospitals	Recreational and other cultural services	Other	Unspecified
										Schools	Further Education				
1996	13,775	9,516	767	194	78	477	524	283	302	201	48	210	250	917	9
1997	13,288	9,325	677	156	74	430	473	204	285	175	36	239	256	941	16
1998	12,954	9,154	666	144	40	391	619	235	242	132	86	215	203	817	10
1999	13,478	9,415	615	142	79	420	569	267	289	174	43	320	238	906	0
2000	13,250	9,303	650	162	132	322	548	323	252	119	76	241	223	900	0
2001	12,812	8,836	779	124	60	387	518	272	307	149	50	278	293	736	23
2002 <sub>4</sub>	12,185	8,504	626	189	38	314	485	308	257	136	27	255	302	717	27
2003 <sub>5</sub>	11,702	8,043	671	136	50	308	567	223	313	159	59	181	301	646	47
2004	10,656	7,420	523	106	35	228	452	208	265	196	57	166	256	700	45
2005	10,244	7,054	590	108	34	229	435	253	268	165	62	172	229	604	41

<sup>1</sup> Including late call, heat and smoke damage only incidents.

<sup>2</sup> Prior to 2005 figures are based on sample data weighted to individual FRS totals.

<sup>3</sup> Includes caravans, houseboats and other non-building structures used solely as a permanent dwelling.

<sup>4</sup> Includes estimates for incidents occurring during ten days of national industrial action in November 2002.

<sup>5</sup> Includes estimates for incidents not recorded during national industrial action in January and February 2003.