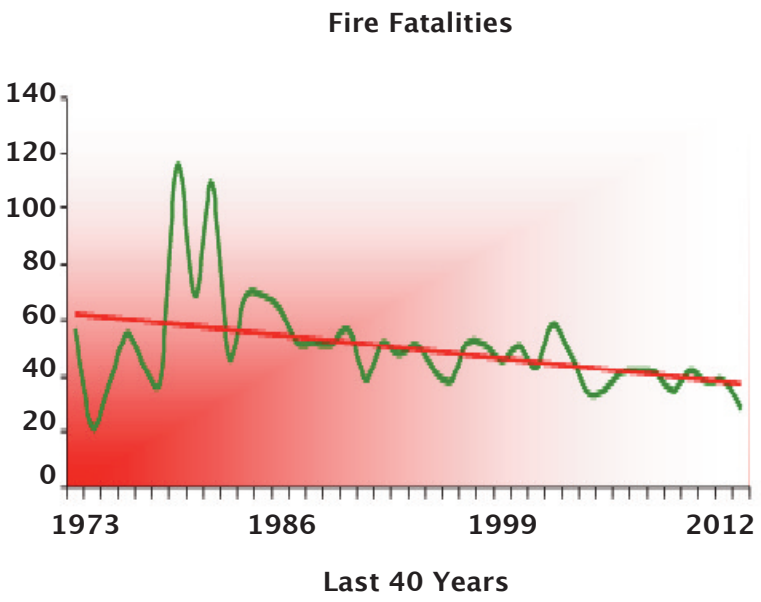
Comhshaol, Pobal agus Rialtas Áitiúil
Environment, Community and Local Government

National Directorate for Fire and Emergency Management

Keeping Communities Safe –

A Framework for Fire Safety in Ireland

February 2013



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Preface

The title of this document "Keeping Communities Safe" reflects the vital objective of fire services in Ireland in their work to protect our citizens, infrastructure and property from the dangers of fire. Like all public services, fire services must ensure and be able to demonstrate that they are delivering consistent quality and cost-effective services which are driving down loss of life, injury and damage from fire and protecting people as they go about their lives.

This is the first major in-depth policy document for this vital area for many years. This wide-ranging initiative reviews the contribution that fire services activities make to that very basic tenet of keeping communities safe – what are the roles which fire services should provide for society into the future? Have we the right structures to deliver effective services efficiently, and are we finding the right balance between fire prevention, fire protection and response? It recognises the place of fire services as part of Local Government, and gives effect to the principle of maintaining local political accountability for this function.

Fire services, in all their facets, are delivered by people. On behalf of the Government, I want to recognise the contribution that all staff in fire services make in protecting our communities. Over the years, fire services have evolved to give us the quality services we have today which continue to drive down the annual toll of loss. We also have a good infrastructure of fire stations, an excellent fleet of specialist vehicles and equipment and a modern communications and mobilisation system. This enables our 3,200 well-trained officers and fire-fighters to be effective and, most importantly, to work safely. This document's risk-management approach is intended to ensure that, despite the hazardous nature of some of the work, all fire service personnel return home safely to their families at the end of the day.

The need for national standards for fire services in Ireland has long been discussed. In 'Keeping Communities Safe' we are setting a workable approach which is in line with international best practice. Each fire service is to review its current service using the 'area risk categorisation' system, and benchmark its service against the associated response service targets which are graded according to risk rating. This is an appropriate setting down of fire service standards for Ireland against which quality, performance and effectiveness can be measured into the future.

Finally, I want to acknowledge the collaboration between local authorities and my Department's National Directorate for Fire and Emergency Management, which has delivered the 'Keeping Communities Safe' initiative to this stage. I want to thank all involved including Chief Fire Officers and fire services personnel who worked on its development and also Strathclyde Fire and Rescue Service who supported and provided international oversight for the approach.

I commend this policy document for implementation by all concerned with building a safer society in Ireland.

Mr Phil Hogan TD
Minister for the Environment, Community and Local Government.

6 February 2013

Executive Summary

'Keeping Communities Safe' is the output from a review in 2012 of fire services and fire safety in Ireland. It aims to provide a comprehensive, balanced strategy to ensure the safety of the public in their homes and other locations, as well as worker safety in providing emergency services. It is an integrated blue-print for further development of the critical public safety roles performed by local authority fire services, to be implemented in the period 2013 – 2015. 'Keeping Communities Safe' is about managing risk, addressing public safety improvement, incident reduction, response standards and service delivery structures for the decade ahead. 'Keeping Communities Safe' is an evidence-led plan, based on international best practice and with international expert validation.

'Keeping Communities Safe'

- Deals with key issues including reform of service delivery structures, the roles of fire services for society, identifies strategies and sets standards for effectiveness and quality assurance processes;
- Sets out the approach, standards and expectations for fire services delivered by local authorities in Ireland;
- Sets challenging outcome targets to be achieved by the end of the implementation period in Dec 2015.

What is new in 'Keeping Communities Safe'

- Service delivery to be reshaped from the current 30 fire services to 21, based on developing and extending a "shared services" approach which provides services for population groups of 120 to 200 thousand persons;
- Strong regional dimension to co-ordinate efficient service provision and "mutual assistance" and support;
- Sets down a risk-management approach to service provision and differentiates emergency responses on the basis of risk/ threat to life with a primary, secondary and tertiary categorisation
- Challenging targets to improve fire safety through reduction of incident levels;

- Highlights the role of the national level in supporting and overseeing the delivery of effective and value for money fire services and underpins an innovative, collaborative relationship between central and local government, providing for local delivery, management and political accountability for this critical public safety service, while ensuring that national objectives of effective services, consistent approach and value for money are seen to be achieved also.

Summary Information on Fire Services and Fire Safety in Ireland

The points below provide summary information on fire services and fire safety in Ireland. More detailed information on fire trends in Ireland can be found in a Research Report titled 'Fire Safety – Statistical Trends and Information', or in the Annual Statistical Bulletins published by the Department of Environment, Community and Local Government.

- There are 37 statutorily designated fire authorities in Ireland, based on the principal local authorities. The fire authorities provide a range of fire services through thirty service delivery units, with an infrastructure of 220 fire stations and some 500 fire appliances.

- Fire services are delivered by 3,400 local authority employees – 1,170 full-time fire fighters in the main cities and 2,063 retained fire fighters. 200 Senior Fire Officers deliver a range of safety and emergency management services as well as managing delivery of the operational service.

- Local authorities annual current expenditure on fire services is some €260m and they also provide support services (HR, IT, Maintenance, Payroll etc) for the operation of the fire services.

- Every year some 100,000 999/ 112 calls for assistance from the public are processed in three Regional Communications Centres in Castlebar, Limerick and Dublin.

- Fire services are mobilised typically to 56,000 incidents each year, 35,000 of which are fires. The other 21,000 incidents include 5,000 responses to road traffic accidents, as well as hazardous materials incidents, rescues, special services and false alarms.

- Domestic dwellings account for some 4,500 fires per annum, with "persons reported" in 450 (10%) of these cases.

- 38 persons are reported as having lost their lives due to fire in both 2010 and 2011.

- Chimney Fires account for more than 5000 fire incidents annually, car fires more than 6,000, rubbish fires (bins and skips) more than 8,000. These categories of fires account for more than 50% of fires attended each year, and are referred to as 'tertiary fires'.

- Fires in commercial, industrial/ storage, institutional buildings and place of public assembly account for just over 1000 fires per annum.

- Dublin City Council provides an Emergency Ambulance Service dealing with 78,000 incidents per annum.

Chapter 1 – Introduction

Introduction to "Keeping Communities Safe"

The title of this document – "Keeping Communities Safe" reflects the policy objective of keeping people safe from fire and other dangers in Ireland. The document has been prepared by the National Directorate for Fire and Emergency Management (NDFEM) of the Department of Environment, Community and Local Government as part of an approach to fulfilling its mandate to develop consistent, quality and value for money fire services. This document delivers a number of the key actions set out in the ***"Irish Fire Services – National Development Framework – 2010 – 2015"***[1]***.***

The document complements and applies objectives in the Programme for Government, the Report of the Local Government Efficiency Review Group and provisions of the recently published Local Government reform agenda "Putting People First" in relation to using shared services to deliver consistent, quality and enhanced value for money fire services to protect communities from fire.

Protecting the public from fire is an important policy objective for society. Front-line fire services are delivered in Ireland by fire authorities (local authorities) as designated in the Fire Services Acts, 1981 and 2003. At national level, the National Directorate for Fire and Emergency Management was created within the Department of Environment, Heritage and Local Government in June 2009 to give central direction and leadership for the fire and emergency management services. The 2009 arrangements put in place a management structure at central government level with a clear mandate and visibility to develop national policy and to drive consistent achievement of value for money services by local authorities, while not interfering with existing local political accountability for front-line service delivery. Under the system, responsibility for the day-to-day operation of fire services remains with the local authorities. However, the Directorate's mandate includes developing national policies and national standards, and supporting and overseeing their implementation at local level.

This document sets out the overall approach, the methods and the techniques to achieve the objective of keeping communities safe from fire. The document has been developed through a collaborative approach with fire authorities. This text incorporates feedback from a consultation document[2] which was circulated to stakeholders in April 2012.

1 NDFEM (2011) ***"Irish Fire Services – National Development Framework – 2010 – 2015".***

2 NDFEM (2012) ***Keeping Communities Safe – Consultation Draft – 9 March 2012***

This "Keeping Communities Safe" policy document includes core standards and guidance for fire authorities which they will implement in delivering their statutory functions. It is supported by a series of subject-specific documents dealing with fire service training, safety management systems for fire services, preparation of statutory 'Section 26' Plans and guidance on a risk indexing method for individual buildings which also set out core processes and standards for fire service work. These provide further detail for delivering consistent, effective and value for money services into the future. A further series of documents titled 'Good Practice Notes' (GPN), describing the approach taken to specific issues by individual fire authorities, endorsed at national level, aims to achieve consistent good practice and cross-authority learning. Together with this main policy document, the full suite of documents comprises a comprehensive Framework for Fire Safety in Ireland.

The vision which this policy underpins is of fire services which are effective in keeping people safe in their community and is also a public service which is safe itself, well-managed, effective and efficient. This document works to apply the Action Programme for Effective Local Government[3] in respect of fire services. Fire services work to prevent fires and other emergencies happening; they ensure that there are appropriate in-built safety features in buildings to protect occupants from fires, and they respond to assist the public with a view to protecting lives, infrastructure & property when fires do occur. As well as being central to protecting existing infrastructure, an effective local government fire service is necessary for supporting and attracting further economic development and investment in communities.

Value for Money

Local authorities currently provide some €260m of revenue expenditure per annum to deliver fire services. Capital expenditure on fire stations, the appliances fleet and mobilisation and communications technology for fire services of the order of €10m per annum is recouped to fire authorities by the Department of Environment, Community and Local Government.

Fire services are subject to the same financial constraints and consequent scrutiny of expenditure as are all public services. Additional investment in fire services beyond that already programmed will be challenging, given the impairment of public and local government finances. The challenge – as reflected in the document title – "Keeping Communities Safe" – is to manage the available resources to achieve an optimal outcome for the public in terms of their individual safety, and to minimise loss and disruption to society.

[3] D/ECLG (2012) A Guide to Putting People First – Action Programme for Effective Local Government

Fire services are provided by some 3,400 local authority staff, and over 80% of the cost of fire services relates to staffing costs. In accordance with the Public Service Reform Agenda, restructuring of service provision arrangements, joint procurement and maintenance for infrastructure and equipment and extension of current shared service arrangements will be used where the business case supports this to achieve better value-for-money.

A key focus has to be to achieve an optimum output from the available resources. The priorities of the service and use of available resources in all areas require consideration therefore. Another key concern is to ensure the safety of staff working in fire services and that fire authorities are able to demonstrate that they continue to comply with legislative requirements to ensure, in so far as is reasonably practicable, the safety of personnel working in the fire services.

This document is intended to provide a comprehensive blue-print for the future delivery of fire services in these challenging times – with the overall objective of still keeping communities safe.

How "Keeping Communities Safe" will Impact on Fire Safety

The provisions of this document have the status of national policy within the meaning of Section 69 (1) (e) of the Local Government Act 2001. Similar status will be accorded to the support documents and Good Practice Notes referred to above as they are completed. This Policy is the key reference/ template for future service provision by fire authorities.

Each fire authority which maintains a fire brigade is required to prepare what is termed in the legislation a 'Fire and Emergency Operations Plan' which sets out how it meets its statutory duties. Each fire service will undertake a review of its current services in light of the approaches and the targets of 'Keeping Communities Safe' and prepare an updated/ revised statutory Section 26 Plan in 2013. Adoption of the Section 26 Plan is a reserved function and the target for completion of this stage is in advance of the next round of Local Authority Corporate Plans due in December 2014. The new Section 26 Plan will set out the individual service's overall approach to delivering the approaches and targets of this policy. It will be complemented by Annual Service Development Plans which set priorities and targets for change on a year-by-year basis. Progress with the targets and objectives will be reported by individual authorities and collated by the National Directorate into annual reports.

The longitudinal process of reform, from concept to completion, is illustrated in Figure 1.1 below.

FIGURE 1.1

Responsibility for implementing the policy provisions of this document falls to fire service management. Any impacts or changes to the terms and conditions of staff working in the fire service which might arise from its provisions will be dealt with through the appropriate IR channels.

Principles which Inform "Keeping Communities Safe"

The principles which inform the development and process of keeping communities safe from fire are:

- The over-riding principle is that the safety of the public from fire is regarded as the paramount concern. This document is fundamentally about assessing fire safety risks, looking at the available resources and proposing a plan for matching risks, needs and resources in Irish society to ensure that the public are safe from fire.

- Achieving an optimum outcome for society for the resources employed in public services can best be achieved by identifying relevant strategic, tactical and operational approaches to managing fire safety – and in particular finding the optimal balance between fire prevention, fire protection and fire service response.

- The provision of fire services is governed by legislation passed by the Oireachtas. This document is prepared taking full account of the relevant legislative provisions including those in the Fire Services Act, 1981 and 2003; the Building Control Act 1990 and the Dangerous Substances Act 1979 and Regulations made under each of these three primary Acts.

- Fire authorities are subject to other legislation as employers in their statutory roles of providing fire services, one of the most significant being the Safety, Health and Welfare at Work Act, 2005. Ensuring consistent compliance with these legislative requirements is an ongoing challenge for fire authorities. This document sets out a clear national policy for fire services in Ireland that facilitates and expects effective intervention by fire services in accordance with the dual statutory responsibilities of fire authorities to protect people and property from fire and also to protect their own employees. This objective is underpinned by a subject-specific Safety Management System document referred to earlier.

- The National Directorate takes account of international research to inform its work. The international research cannot give a fire safety model for Ireland – it is necessary to take information – mindful of its context – and use it in preparing a best fit for Ireland's issues, circumstances, objectives and possibilities. The international literature is used to inform the overall approach as well as the detail of several sections of this document.

Definitions, Terminology and Abbreviations

This document contains terminology specific to fire service issues in Ireland. In general, the terminology is explained in the text at the points where it is used. A summary of terminology, definitions and the specific terms as well as a Table of Abbreviations is provided in Appendix E.

Firefighter Training Exercise

Chapter 2 – The Risk Management Approach

Risk Management Approach

This document sets out an holistic, systems approach to achieving the objective of keeping communities safe from fire. It is based on an approach of managing the risk associated with fire to protect lives and property from the threat and occurrence of fire. The systems approach to safety management underpins the activity of the National Directorate and was used in the development and roll-out of Major Emergency Management arrangements in Ireland. Risk Management is generally seen to involve five stages, as illustrated in Figure 2.1 below:

- identifying hazards and evaluating the risks these hazards pose,
- mitigating those risks by trying to reduce the probability of the event and/ or its consequences if it does occur,
- planning and preparing to deal with the risk,
- responding to the event, and
- reviewing events with a view to learning for the future.

FIGURE 2.1
SYSTEMS APPROACH TO RISK MANAGEMENT

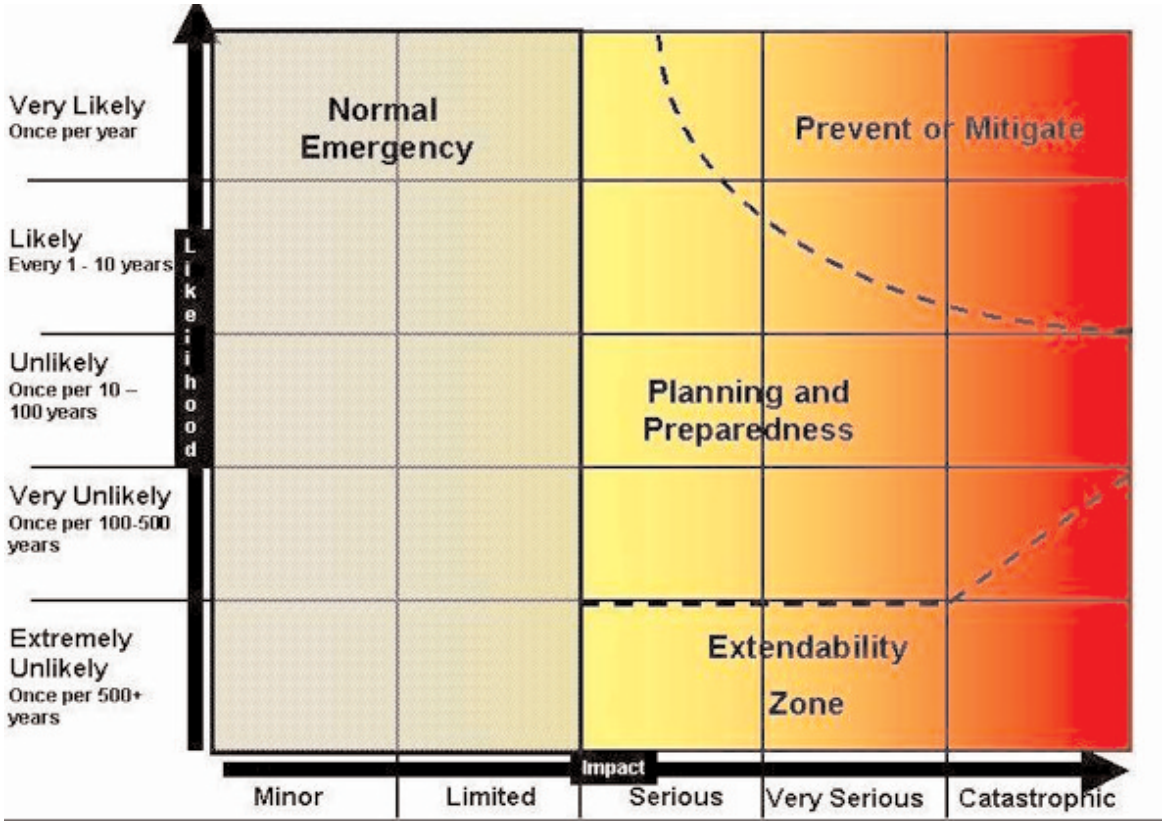
Societies are not, and never will be free from the risk of fire. At the core of this document is an approach which takes a view of identifying and grading the nature of the different fire risks faced by communities. This 'area risk categorisation' system is described in Chapter 7 and ranges across five levels from very high to very low. The work of fire services, in all its facets – prevention, protection and response – will be geared in future to actively managing the highest priority fire risks within communities, while maintaining an appropriate level of response intervention capability.

There is a need to use a common language in relation to risk management and relevant definitions are set out in Appendix E. In particular, the term "Risk Assessment" as used in this document is one stage of the risk management process. Under Section 19 of the Safety, Health and Welfare at Work legislation, this phrase has a particular meaning, and requires employers to carry out risk assessments of their work activities. Guidance on relevant aspects of risk assessment for fire services and meeting this legislative requirement is provided in the Fire Services Ancillary Safety Statement (generic risk assessments), in the Fire Service National Incident Command System (dynamic risk assessments) and Fire Service Standard Operational Guidance (SOGs) (specific situational risk assessments).

The objective of the fire service is to reduce the risk – using an appropriate blend of the full range of available approaches – in fire prevention, fire protection and response. The guiding principle of all public services is doing the "best for the most people" within resource constraints.

Unless alerted to the early stages of a fire in a dwelling, either through their own or somebody else's perception (smell or sounds), or a smoke alarm, persons may be overcome by smoke and carbon monoxide (CO). The time limits for successful resuscitation from concentrations of CO normally associated with fires is generally regarded as being between 13 and 17 minutes, depending on exposure conditions. In reality, some fire casualties may be beyond assistance before a 999/ 112 call is ever made to the fire service, and the probability of successful rescue by fire brigade intervention is minimal.

FIGURE 2.2
PRESENTATION OF SOCIETAL RISK ON 5 x 5 MATRIX



Guarantees of safety cannot be offered in relation to the outcomes of fire service activity. The 'disaster tree' is an analytical approach used to understand significant events involving loss through fire, and it is the common understanding that a fire event may escalate through various levels from initiation and result in loss, damage and/ or death (including multiple deaths). The objective of fire safety activity is to prevent the event starting, or if a fire does start, to prevent it escalating through the various levels of a disaster tree to the point of causing death or large-scale loss. The probability of arriving at the point of disastrous outcomes is reduced significantly by fire service activities.

Fires in dwellings comprise the largest category of societal fire risk and more than 90% of the annual death toll from fires occur in the domestic setting. There are typically 4,500 dwelling fires annually in Ireland. Other categories of property such as institutional buildings (e.g. hospitals and nursing homes), places of public assembly, large shops, office complexes and industrial/ factories have a potential for high or even catastrophic societal loss in the event of fire. While part of the focus in this document is on the domestic dwelling fire situation, other categories of property have to be included in a risk reduction strategy. In some cases significant fire protection works have been incorporated into these categories of

buildings, either from design/ construction stage and/ or as a result of specific statutory requirements / processes. Fire safety measures are primarily intended to ensure the safety of persons in and about the buildings in question, but these measures also contribute to property protection. Many of the more complex categories of buildings have features to assist fire services response on arrival.

As part of the Major Emergency Development Programme 2006 – 2008, a two stage risk assessment exercise was carried out by all local authorities. This work was undertaken in accordance with the provisions of a Guidance Document[4] and relevant officers were trained in applying the techniques. The outputs were presented on a risk matrix of the type shown in Figure 2.2 above, and the scenarios identified were used in planning major emergency training and exercises. This work is complementary to the fire services risk management process.

A train wreck scenario is the focus of this training exercise.

Integrated approach to fire safety

There has been a significant evolution of fire services over the decades. From being an almost exclusively response based service in earlier decades, fire services in Ireland have evolved since the 1960's in particular to have significant fire prevention and fire safety enforcement mandates.

The development of what is termed "Community Fire Safety" over the past decade is a particularly welcome trend. Engaging people to take action for their own safety is seen as a particularly effective approach. It is recognised also by fire services that the best and most effective access to many of those who are seen as being

[4] Major Emergency Management National Steering Group (2007) *A Guide to Risk Assessment*

vulnerable to the threat of fire can be achieved through partnerships with the existing community networks and other organisations who work with 'at risk' groups.

The integration of all aspects of fire safety work – fire prevention, fire protection and fire service response – is a key to achieving effective results, and the further development and enhancement of current arrangements to do this is a key objective of this document.

The Risk-Based Approach Project

The Department of Environment, Community and Local Government has been working with the Contracting Authorities of the three Regional Communications Centres on a project to apply a national model for a Risk-Based Approach to Fire Cover in all fire authorities. This project is in line with the international trend towards the use of a risk-based approach to managing emergency service provision and is intended to bring a national consistency to this process in Ireland. The initial output reports and maps were provided to each fire authority in July 2012.

The initial RBA reports were produced following the procurement of a Geographic Information Systems (GIS) software utility that combines fire service incident and census data into a single data-set to enable analysis of fire risk related information. Pilot studies were completed in Clare, Laois and Galway to verify the outputs from the system. The report is based on details of three years of fire service activity from 1st January 2008 to 31st December 2010.

The fire station area was selected as the basic unit of analysis for this project. An analysis of fire station activity indicates current fire risks and shows how these relate to percentage of population covered and also travel time from station to incidents. This has allowed the development of a tabulated and thematic database of station areas, thereby enabling a view to be obtained of how fire service resources are deployed in relation to the risk profile across individual fire authorities and the entire country.

The model for travel time boundaries has been validated during the development phase of the project. These boundaries indicate the level of fire cover that is being achieved and relate fire cover to travel time, thereby presenting response metrics for each station area.

The data provided by the RBA risk analysis process will be integrated into service planning within each fire service. The RBA report, together with the recommendations in this document, will support local fire service management in their service analysis and decision-making and will also underpin future revisions

of Fire Authority's Section 26 plans. While data is shown in relation to individual fire authority areas, it is National Directorate policy that the nearest available resource (in terms of speed of arrival) should be deployed to emergency incidents irrespective of administrative boundaries. Station boundaries and pre-determined attendances are being adjusted to reflect this situation, where this is not already the case.

The content of the RBA report can be used to identify those areas where incident rates are above the national norm, and to set targets for change and improvement on a station by station basis. Appropriate mitigation measures and, in particular, community fire safety measures such as the smoke alarm scheme can be utilised to increase the safety of the public in their dwellings. Fire authorities can determine the priority needs in their areas and apply the available resources in the most effective configuration, ensuring an appropriate and effective balance between fire prevention, protection and response measures. It is now possible for fire authorities to compare their individual station ground activity levels and also to compare authority incident activity to national norms and targets set in this 'Keeping Communities Safe' document.

The RBA reports which issued to all fire authorities in July 2012 are intended as the first of a series of reports which will build up a comprehensive, longitudinal picture of fire service activity and the measures utilised to drive down risk. It is intended that this, in turn, will feed into a continuous cycle of service improvement through targeted risk mitigation.

Chapter 3 – Structures to Deliver Effective Fire Services

Current Structures

Fire services are provided by the 37 statutorily designated fire authorities, and are accordingly structured around the principal local authorities. This situation arises because the local government system has provided fire services in Ireland for many years. In the current arrangement, there are 30 service delivery units for the 37 fire authorities. There is considerable variation in scales of populations served by different fire services.

While currently structured around the principal local authorities, there are 'shared services' arrangements in place among a number of fire authorities, including Dublin, Galway, Louth and Westmeath. The fire services have been to the fore in using the "shared services" concept within local government, and have provided training and mobilisation and communications facilities on a regional basis for some years now. A programme of joint procurement of fire appliances was put in place in 2011 and has delivered budgetary and administrative savings.

At national level the Department of Environment, Community and Local Government works to assist local authorities in the development and maintenance of quality firefighting services through the provision of funding under the Department's fire service capital programme, by running a national training programme, by publishing guidance on relevant matters and by setting general policy. This support and development role has been carried out by the National Directorate for Fire and Emergency Management within the Department since June 2009. The Directorate brought the functions of the former Fire Services Council and the Fire Safety Council, as well as administrative and technical staff in the Department, into a single unit.

Future Service Delivery Structures

Four service delivery options were considered:

- A single, national fire service
- Regional service delivery
- 'Shared Service' / multi-authority combinations resulting in a smaller number of service delivery units
- Continue existing arrangements, based on principal local authorities

'Shared Services' Delivery Structures

The four options were considered in depth and it was concluded that the functions of community safety, fire protection, fire services response and emergency management are best suited to continued performance by local authorities, subject to changes and standardization in the scale of the service delivery units. The evolved range of roles provided by fire services in Ireland is seen to be particularly well-fitted to location within the local government system, in comparison to other jurisdictions where a single focus 'blue light' service is the pre-dominant remit of fire services.

The option of moving to a national fire service was considered in detail but it was considered that there was a very good fit between the roles provided currently by local authority fire services, which include major emergency management, and the local government system. KCS provides for the local authorities to remain as the fire authorities but **service delivery is to be reshaped from current 30 fire services to 21** to enhance consistency and to achieve efficiencies. The new structures develop and extend a "shared services" approach and provide for service delivery units based mainly around population groups between 120 to 200 thousand persons.

Nonetheless, the consideration highlighted that there is a clear need to strengthen critical aspects of structure at both national and regional levels which lead to efficiencies, quality and consistency in service delivery. The approach and evolved structures and working arrangements developed in the fire services and emergency management arena over the last decade have positioned fire services to achieve this complex objective of optimizing the balance between national/ regional/ local dimensions of service delivery.

To ensure the continued safety of communities, while recognising the current constraints and the need for value for money in service provision into the future it is considered that a significantly expanded 'shared services' approach to delivery of fire services by local authorities represents the optimum structure for future service delivery, coupled with a strengthening at both the regional and national level of appropriate elements of service support.

'Shared Services', Multi-Authority Fire Services

Under this arrangement, all current fire authorities remain as designated in the current legislation, but the number of fire services is reduced from the current thirty to twenty one. This is based on fourteen single fire authorities which have populations in the range of 120,000 to 200,000 and by forming seven 'shared services' with populations generally in the same range . This gives an average size

of population served by a fire service of 153,000 (2,915,381/ 19) when the two services with very large populations, Dublin and Cork County, are excluded.

14 Single Fire Authorities

The fourteen single fire authorities are: Clare; Cork City; Cork County; Donegal; Kerry; Kildare; Louth (includes Dundalk and Drogheda Fire Authorities); Mayo, Meath; Wexford; Wicklow; Tipperary; Limerick; and Waterford (process of change to single authority underway in latter three)

7 'Shared Services'

The seven 'shared services' are: Carlow/Kilkenny; Cavan/Monaghan; Dublin City Council/South Dublin County Council/Fingal/Dún Laoghaire-Rathdown; Galway City and County; Laois/Offaly; Longford/ Westmeath (includes Athlone fire authority); and Roscommon/ Sligo/ Leitrim.

Delivering 'Shared Services'

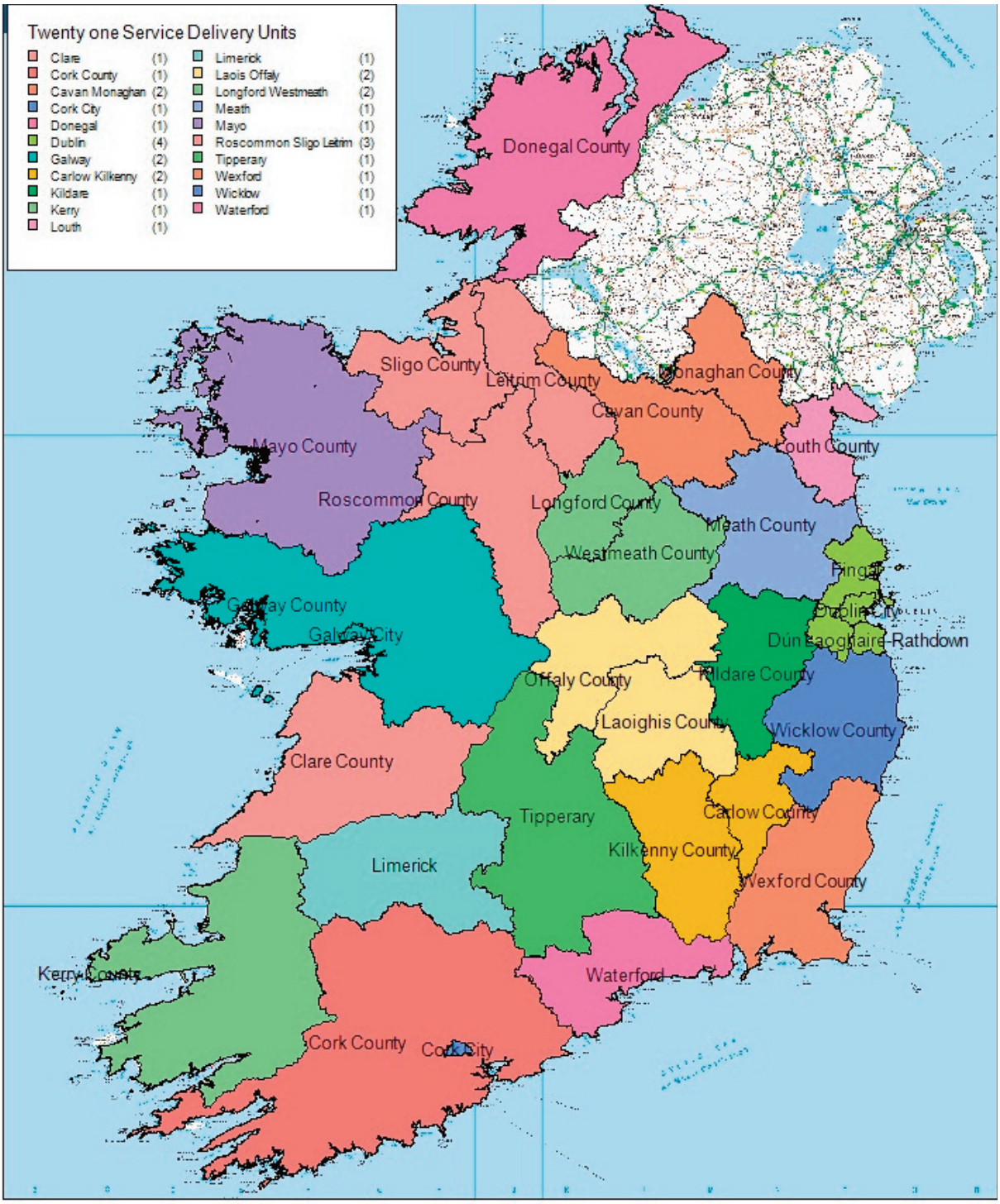
There is significant experience among fire authorities of delivering aspects of their services on a shared service basis. It is intended that this experience, coupled with the work already underway to integrate fire services in Tipperary,Limerick and Waterford will provide a solid basis for developing an appropriate model of shared services for fire authorities. Appropriate governance, service management, funding and accountability arrangements will be developed as part of this change programme.

Table 3.1
Future Fire Services Delivery Units

Local Authority	Population		No of Fire Station	No. of firefighters (March 2012)	
14 Large population areas	**CSO 2011 (Census)**			**Full Time[5]**	**Retaind**
Mayo		130,638	14	3	119
Wicklow		136,640	10	0	95
Kildare		210,312	6	0	75
Wexford		145,320	5	1	63
Cork County		399,802	21	1	219
Cork City		119,230	2	134	0
Kerry		145,502	10	3	105
Clare		117,196	7	1	76
Louth (incl Dundalk & Drogheda)		122,897	5	35	58
Meath		184,135	7	0	71
Donegal		161,137	16	0	155
Tipperary		158,754	12	0	133
Limerick		191,809	7	60	70
Waterford		113,795	10	31	94
7"shared service" basis					
Cavan/Monaghan		133,666	17	0	132
Longford/Westmeath (in-cludes Athlone Fire Auth.)		125,164	9	0	92
Carlow /Kilkenny		150,031	11	2	113
Laois/Offaly		157,246	13	1	121
Roscommon/Sligo/Leitrim		161,256	15	4	140
Galway City & County		250,653	10	36	106
Dublin City Council	527,612		14	858	26
South Dublin County Council	265,205				
Fingal	273,991				
Dunlaoghaire-Rathdown	206,261				
		1,273,069			
Totals		**4,588,252**	**221**	**1,170**	**2,063**

[5] Excludes the Senior Officer complement

Figure 3.1
Map of Future Fire Services Delivery Units



Fourteen Single Fire Authorities
Tipperary Authority
Limerick Authority
Waterford Authority
Clare County Authority
Cork City Authority
Cork County Authority
Kerry County Authority
Wexford County Authority
Wicklow County Authority
Kildare County Authority
Meath County Authority
Mayo County Authority
Donegal County Authority
Louth County Authority

Seven "Shared Service" Delivery Units
Cavan and Monaghan Authorities
Longford Westmeath Authorities
Carlow Kilkenny Authorities
Laois Offaly Authorities
Roscommon Sligo and Leitrim Authorities
Galway City and County Authorities
Dublin City, South Dublin, Fingal and Dunlaoghaire Rathdown Authorities

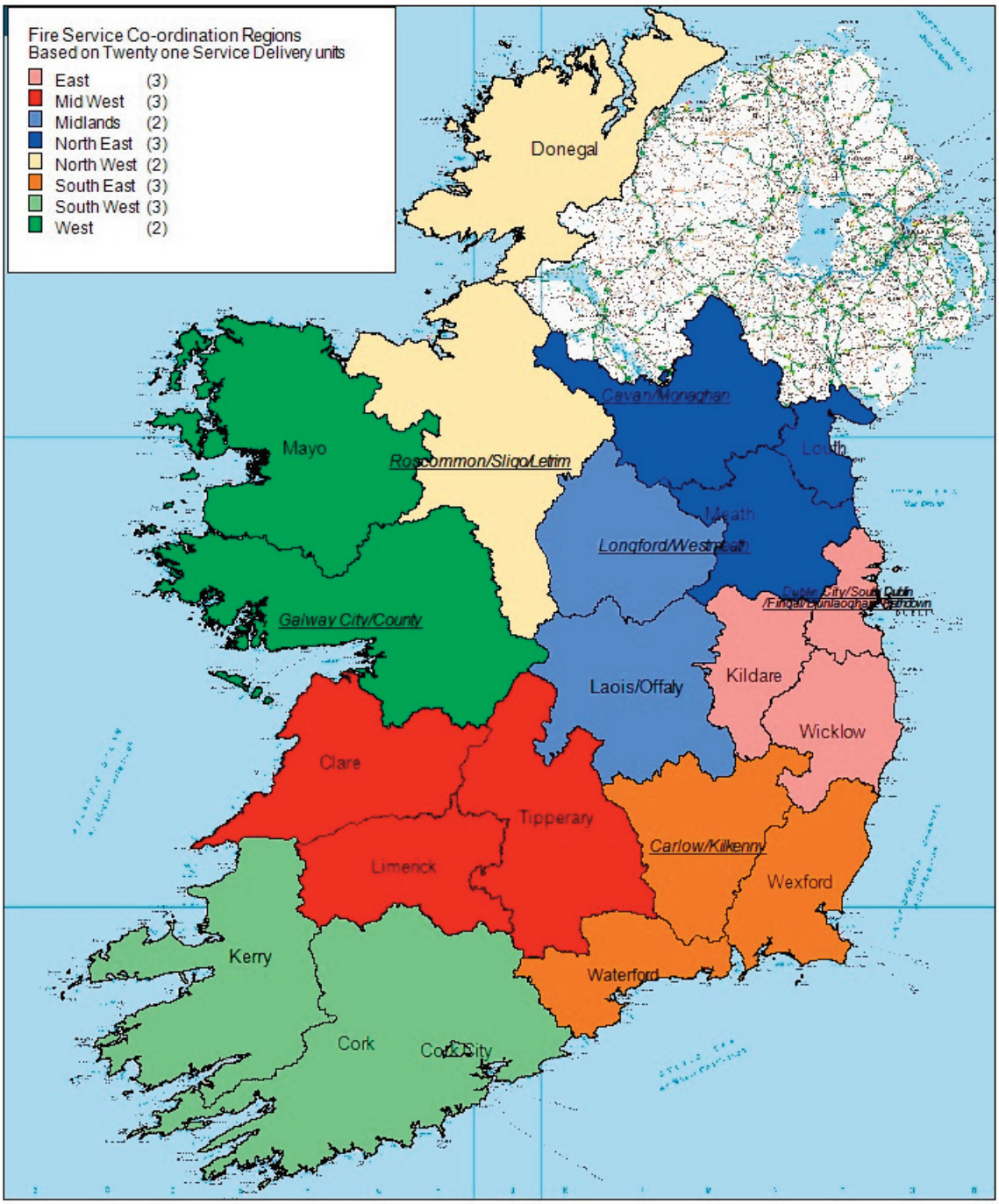
Strengthening the Regional and National Dimension

As part of the 'Shared Services' model, both the Regional and National elements of fire service delivery structures will be strengthened. This is to provide for the efficiency and consistency benefits which are priority objectives, together with local service delivery which provide appropriate management and accountability as set out above. In this way, an *'and/ both'* model which provides for the benefits of national, regional and local service provision, rather than an *'either (national) / or (local)'* model, is adopted.

Stronger Regional Arrangements

Fire services have worked with region-based arrangements to deliver aspects of their services, and this will now be extended, based on two amendments to the current eight major emergency management regions. The major emergency regions are seen as particularly appropriate for fire services collaboration as they are well established and in operation for inter-agency working and are also appropriate for collaboration of local authority civil defence services. These amendments are for South Tipperary to be part of the Mid-West Region and for Roscommon to be part of the North-West Region.

Figure 3.2
Map of Fire Service Co-ordination Regions



Seven "Shared Service" Authorities
Cavan and Monaghan Authorities
Longford Westmeath Authorities
Carlow Kilkenny Authorities
Laois Offaly Authorities
Roscommon Sligo and Leitrim Authorities
Galway City and County Authorities
Dublin City, South Dublin, Fingal and Dunlaoghaire Rathdown Authorities

Authorities Merged into single Authorities inder separate Local Government reform process
Tipperary Authority - Tipperary South and Tipperary North Authorities
Limerick Authority - Limerick City and Limerick County Authorities
Waterford Authority - Waterford City and Waterford County

Table 3.2
Fire Services Regions

Local Authority	Region	Population CSO Census 2011	No of Fire Stations	No. of firefighters (March 2012)	
				Full Time	Retained
Wicklow	East	136,640	10	0	95
Kildare	East	210,312	6	0	75
Dublin	East	1,273,069	14	858	26
		1,620,021	**30**	**858**	**196**
Clare	Mid West	117,196	7	1	76
Tipperary	Mid West	158,754	12	0	133
Limerick	Mid West	191,809	7	60	70
		467,759	**26**	**61**	**279**
LD/WH	Midlands	125,164	9	0	92
LS/OY	Midlands	157,246	13	1	121
		282,410	**22**	**1**	**231**
Louth	North East	122,897	5	35	58
CN/MN	North East	133,666	17	0	132
Meath	North East	184,135	7	0	71
		440,698	**29**	**35**	**261**
Donegal	North West	161,137	16	0	155
RN/SO/LM	North West	161,256	15	4	140
		322,393	**31**	**4**	**295**
Cork City	South	119,230	2	134	0
Kerry	South	145,502	10	3	105
Cork County	South	399,802	21	1	219
		664,534	**33**	**138**	**324**
Waterford	South East	113,795	10	31	94
Wexford	South East	145,320	5	1	63
CW/KK	South East	150,031	11	2	113
		409,146	**26**	**34**	**270**
Mayo	West	130,638	14	3	119
GY	West	250,653	10	36	106
		381,291	**24**	**39**	**225**

The working arrangements for regional collaboration by fire services will be developed from the experience of regional collaboration to date and current models of multi-authority working. The issues to be considered at regional level include a range of areas where co-ordination will lead to more consistent and effective service delivery:

- Planning for and running large-scale or widespread incidents on a "mutual assistance" basis in the region;
- The revision of pre-determined attendances (PDAs) based on having the nearest available resource in terms of travel time mobilised, rather than based on fire authority's administrative boundaries;
- A 'needs assessment' of specialist services with the possibility of designating key stations for above normal equipping/ expertise to deal with specific/ less common categories of events should be considered on a regional basis. This will optimise use of existing infrastructure and staff and deliver special services more efficiently;
- The deployment of all appliances (including special appliances) and equipment should be considered and co-ordinated on a regional basis,
- Appropriate elements of procurement and maintenance should be considered and co-ordinated on a regional basis.
- The provision of elements of fire service training should be co-ordinated at regional level.
- Local authorities' participation in Major Emergency Management arrangements should be co-ordinated at regional level.
- Appropriate aspects of fire safety and fire prevention work should be co-ordinated at regional level.

Other issues may be considered as appropriate at regional level, and cross-regional working arrangements will be developed as appropriate.

National Co-ordination and Development Structures

The arrangements for strengthening the national dimension builds from the National Directorate structure put in place in June 2009. The recent experiences of collaborative working between the Department of the Environment, Community and Local Government and local authorities in the emergency management and the fire services field are regarded as innovative, appropriate and effective.

One of the key functions at national level is co-ordination of services. The Directorate's experience in co-ordinating Ireland's response to severe weather emergencies in 2009/ 2010 is particularly relevant. This involved coordinating the activities of a range of government departments, specialist agencies as well as response services at local and regional level.

In relation to provision of fire services, the National Directorate will:

- Co-ordinate national level response to, and support for, large-scale or major emergency events (up to and including international assistance) which fire services are involved in;
- Co-ordinate fire service liaison with other agencies at national level as appropriate;
- Co-ordinate training and deliver an annual national training programme;
- Co-ordinate and support capital investment in fire services infrastructure and facilities;
- Co-ordinate and lead the transition to the TETRA communications system arising from the CAMP Review Report, and the move from the current three regions structure to a single national service with distributed nodes;
- Co-ordinate fire safety initiatives including National Fire Safety Week;
- Co-ordinate international dimensions of fire service provision;
- Continue to set national standards/ specifications and guidance as appropriate covering a wide range of subjects.

Part of the mandate of the National Directorate for Fire and Emergency Management is to achieve an appropriate level of consistency across all aspects of service provision by individual fire services. Setting national standards is one of the key mechanisms for achieving this objective.

The National Directorate undertakes the task of devising appropriate national standards, specifications and guidance by engaging fire authorities or individual officers to do research on a subject, to prepare draft documents, to work with a committee of appropriate experts to finalise a draft before formally adopting documents as national standards, specifications or guidance.

The National Directorate for Fire and Emergency Management will continue to develop its role of producing appropriate National Standards/ Specifications and Guidance and revising/ updating these as appropriate in conjunction with fire services. Where there is no available standard/ specification/ guidance issued by the National Directorate, the Directorate may issue guidance referring to an appropriate international guidance.

All fire authorities will use the national standards/ specifications and guidance issued by the National Directorate from time to time as the basis for relevant activity/ work and, where not already doing so, will transition to do so for those listed in Appendix B before end of 2013.

In addition to its roles in relation to the fire services, the National Directorate for Fire and Emergency Management also undertakes a range of functions in emergency management at a number of levels in accordance with its current mandates. These include:

- Leading inter-agency preparedness among the principal response agencies (An Garda Síochána, the Health Service Executive and the local authorities) by chairing and supporting the 'National Steering Group for Major Emergency Management'. This is the Group which prepared the original Framework for Major Emergency Management, undertook the Major Emergency Development Programme 2006 – 2008 and oversees the extensive on-going work in the eight Major Emergency Management regions;

- Undertaking the national co-ordination role where the Department of Environment is the 'Lead Government Department' for co-ordinating national level response to a range of emergency crisis scenarios;

- Participating in and contributing to national emergency management structures;

- Co-ordinating and representing Ireland in EU Civil Protection matters.

Chapter 4 – Fire Service Roles – the Range of Services

Introduction

It is important to take stock of the roles which fire services perform for society as a first step in planning future fire services provision in Ireland. While the legislative underpinning relates primarily to fire safety and response to fires, the legislation enables fire services to engage in a broad range of activities, and the nature of services provided have changed substantially over the years as society has developed.

Given the importance of identifying priorities and applying the available resources to those priorities, it is appropriate to review what is currently undertaken with a view to planning future service provision. The issues which inform this consideration are as follows:

- The statutory responsibilities of fire authorities and the statutory underpinning which enables a wide range of activity;
- The current range of services provided and the extent to which investment has been made to deliver these;
- The relationship, actual and potential, between the current range of services provided and the statutory responsibilities of other agencies. The effectiveness of the working arrangements where fire services undertake roles for, or in conjunction with, other services providers requires review and clarification in a number of situations;
- The place of the voluntary and community sectors and working arrangements with them;
- The statutory requirements of the Safety, Health and Welfare at Work legislation, whereby a safe system of work has to be in place in undertaking any role. The challenge is ensuring that personnel achieve and maintain necessary competence for the range of roles/ activities they may be designated to undertake. This poses a particular difficulty regarding the demands involved for retained fire services;

- The match between resource availability and delivery of services. While it is appropriate to utilise a social infrastructure like full-time fire services to the greatest possible extent, retained fire services face a significant set of challenges in expanding beyond core fire services roles.

The Statutory Requirements on Fire Authorities

The following are the areas where there are specific statutory requirements on fire authorities in relation to fire service activity. The primary legislation is the *Fire Services Acts 1981 and 2003*

- Section 10 of this Act sets out the key responsibility of fire authorities to respond to fires to protect life and property.
- Section 10 (2) states

"A fire authority shall –

(a) make provision for the prompt and efficient extinguishing of fires in buildings and other places of all kinds in its functional area and for the protection and rescue of persons and property from injury by fire.

(b) establish and maintain a fire brigade, provide premises and make such other provision as it considers necessary or desirable for such purpose, and

(c) make adequate provision for the reception of and response to calls for the assistance of the fire brigade."

Fire services roles are further facilitated by the Fire Authorities (Emergency Operations) Regulations 1987 and fire services ensure compliance with the Ease of Escape Regulations made under Section 37 of the Fire Services Act.

The same local authorities who are designated fire authorities by the Fire Services Act are designated building control authorities by the Building Control Act, 1990 and 2007. The Building Control Regulations 1997 to 2009 provide, among other provisions, for a system of Fire Safety Certificates to show that building designs comply with fire safety requirements of the Building Regulations.

Under the Dangerous Substances Acts 1972 and 1979 local authorities are involved in licensing under the Dangerous Substances (Retail and Private Petroleum Stores) Regulations 1979 to 2008 and Dangerous Substances (Petroleum Bulk Stores) Regulations, 1979.

A training exercise on a Hazmat incident.

Local authorities are designated as local competent authorities under S.I No. 74/2006 – European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006, commonly known as SEVESO regulations which deal with very large scale premises which, because of the nature of processes or quantities of materials on site bring them within the scope of the COMAH regulations.

Under the Explosive Acts 1875 and 2006 and S. I. No. 804/2007 – Stores for Explosives Order 2007 local authorities are involved in advising on safety in relation to storage of explosives.

In addition to statutory responsibilities outlined above, fire authorities are legislatively enabled to undertake a range of activities by Section 25 of the Fire Services Act which gives a wide "enabling" power:

- "***A fire authority may carry out or assist in any operations of an emergency nature, whether or not a risk of fire is involved, and a fire authority may accordingly make such provision for the rescue or safeguarding of persons and protection of property as it considers necessary for the purposes of that function"***

This provision enables fire services to respond to a range of incident types other than fires, and includes response to road traffic accidents and hazardous materials incidents as well as rescues of all kinds including from water, from heights and from confined spaces.

Section 19 and subsequent sections of the Fire Services Act also provide that fire authorities are involved in Fire Safety Auditing and Enforcement & input to Licensing of certain categories of premises by the District Courts (FSA Section 24).

As well as the statutory roles described above, a number of other roles have evolved for fire authorities. These include:

- Emergency Management (Framework for Major Emergency Management as implemented via the Major Emergency Development Programme 2006 – 2008);
- Community Fire Safety (Fire Services Change Programme 2005 – 2007);
- Other public safety Roles, including Crowd Event Safety (some regulated/ licensed events)

Recommended Safety Roles

The following are the areas where it is recommended fire services should concentrate their fire safety roles. These are expanded in Chapter 6.

The primary roles of fire services in relation to fire safety should be

- to reduce the number of fire incidents occurring in their functional area,
- to limit damage where fires do occur, by ensuring appropriate fire protection facilities (such as early detection and warning systems) are in place, and
- to prevent escalation to point where single or multiple fatalities are likely to occur
- to extinguish fires

Community Fire Safety

The evolved Community Fire Safety initiatives should be strengthened:

- Smoke Alarms programme – focus efforts on identified vulnerable, through working with Community and Voluntary sector
- Implement checks for working smoke alarms in neighbourhoods after attending fires
- Primary Schools Programme – to create fire safety conscious society
- Engagement with public on targeted fire safety messages – Fire Safety Week / queries/ fire safety information
- Partnerships with related sectors and community groups.

Fire Protection

- Fire Services Act
  - Educate those with S 18 (2) responsibilities in targeted sectors

- Section 19 & seq Enforcement Powers
  - Use Policy and Procedures guidance, including risk prioritising scheme, as well as individual premises risk grading system

- Section 24 Licencing
  - Continue to monitor safety in Places of Public Assembly (POPA) via District Court Licencing and strengthen enforcement activity by 'During Performance Inspections' – to ensure public safety.

Dangerous Substances

- Fire authorities will continue to licence premises under the provisions of the Dangerous Substances Regulations.

Building Control

- Fire Safety Certificates – Fire services will continue to process Fire Safety Certificate applications and associated work

- Approximately half of the fire services currently provide/ manage the building control function on behalf of their local authority. Arrangements for a strengthened building control system are under consideration elsewhere and it remains a local decision as to the level of fire service involvement in other aspects of building control activity.

Each Fire Service should review its fire prevention activities in light of the above and adjust them to bring them in line with this guidance over the period 2013 – 2015.

Response Services Roles

As noted in the introduction, the fire services legislation is widely enabling, with Section 25 providing an empowering clause that enables fire services to be involved in many roles other than dealing with fires.

It is suggested that the responses to be made by fire services should be divided into three categories

- Core Services, being incident types which all fire brigades will respond to;

- Discretionary Services, where there is a local discretion within individual fire services, depending on an evaluation of needs within the community and local arrangements for service provision, and

- Other Situations, where the nature of the event and the hazards which, although enabled, do not fall within the statutory responsibilities of the Fire

Services Act, and it is deemed inappropriate for fire service resources to be deployed to incidents within these designations.

In the 'other situations' category , the relevant Regional Communications Centre taking the request for assistance may contact the Rostered Senior Fire Officer, who is mandated to decide whether to mobilise fire services resources in light of information/ circumstances. Fire services may be mobilised in situations where they would not normally be mobilised if a request for specific assistance is received from An Garda Síochána.

The various scenarios categorised under three headings are listed below.

There is a very significant responsibility on management in fire authorities to ensure that appropriate safe systems of work are in place. This is achieved through a risk management approach with consequent training/ competence of fire fighters linked to local needs appraisal on a station by station basis. It is clear that the more roles a fire brigade is designated to perform, the greater is the corresponding burden in terms of ensuring, so far as is reasonably practicable, the safety of staff involved in multiple roles.

Each Fire Service should review its operational response activities in light of the policy set out herein and adjust their pre-determined attendances (see Chapter 7 and Appendix A) to bring them in line with this guidance before the end of 2013.

Core Operational Services (for all fire brigades)

The following are the list of core response roles for all fire services:

- Aircraft (Emergency Standby / Incident)
- Automatic Fire Alarm
- Boat Fire – Moored
- Boat Incident with Persons Reported – Moored
- Bog/ Gorse/ Forestry Fire
- Building Collapsed – Persons Reported
- Caravan Fire
- Chimney Fire
- Electrical Incident (Wires Down / Electrocution)
- Explosion
- Fire Dwelling House / Apartment (including reports of smoke from buildings and warm walls)
- Fire Industrial / Institutional / Harbour / Tunnel & Underground Structure/ Explosive Store / Prison & Secure Accommodation / Multi-Residential

Building / High-Rise Building / Underground Car Park / Multi-Storey Car Park / Public Assembly Building / Vacant Building / Sandwich Panel Building / Basements (including reports of smoke from buildings and warm walls)

- Flooding – Life at Risk – rescue and warning roles
- An Garda Síochána Request for Attendance
- Gas (Smell / Leak)
- Haybarn & Farm Fire
- Hazardous Material Incident, including Acetylene
- Ice & Unstable Ground Rescue
- Lock In – Life at Risk
- Lock Out – Life at Risk
- Outdoor Fire (Bonfire / Fence / Hedge / Grass / Tree / Rubbish / Skip / Tiphead / Oil / Petrol)
- Radiation Hazard
- Railway Incident
- Rescue General – Persons Reported
- Road Traffic Accident – persons reported (other than Road Cleanup)
- Sewer / Trench Collapse – Person Trapped
- Ship Fire – Docked
- Ship Fire at Sea – Coastguard requests to DFB Marine Emergency Response
- Vehicle Fire (Motorcycle / Car / Truck / Bus / Coach / Dangerous Goods Vehicle)

Operational Service – Discretionary Roles

The following lists are recommended for consideration by each fire service with a policy decision to be made on response to incidents in these categories. In deciding to undertake a role, services should be conscious of the need to have safe systems of work in place for all roles which it is planned to undertake. This will include having appropriate equipment, procedures, training and instructions. In cases where another body has statutory responsibility for a function fire services should only be involved on the basis of being a declared resource for mobilisation by the responsible service.

- Body Recovery (other than from Water)
- Building Collapsed – No Persons Reported
- Confined Space Rescues (Sewers / Silos)
- Mine and Cave Rescue (requests to assist)
- Flooding – No Life at Risk (e.g. pumping out)
- Lift – Person(s) trapped
- Rescue from heights
- Oil Spillage
- Pollution and Environmental Incidents

- River Rescue (in association with IRCG)
- Request for the provision of water to buildings
- Road Hazard (Cleanup after RTA, Trees Down, Oil or Other Substance, Flooding on road, Dangerous Building at the side of the road etc.)

While there is a desire to ensure that communities have access to a broad range of public services when they need them, there are certain situations where it is not considered appropriate for fire services resources to be deployed. These include situations where there are other more appropriate services to which any calls in these categories should be directed. Further, the deployment of fire services to such calls would render them unavailable, or could delay them, in responding to their core public safety roles. The situations listed below are considered inappropriate therefore for fire services response, subject to requests from An Garda Síochána to assist in specific ways. This list takes account of organisations which are likely to be involved in these types of incidents (shown in brackets as follows: NAS – National Ambulance Service; IRCG – Irish Coast Guard; AGS – An Garda Síochána; EOD – Explosives Ordnance Division; MCR – Mountain and Cave Rescue; RSPCA – Royal Society for Prevention of Cruelty to Animals)

- Ambulance Assist (HSE/NAS) (Discussions are underway with the HSE with a view to clarifying situations and arrangements where fire services might be mobilised in an 'ambulance assist' role)
- Boat – Not Moored (IRCG)
- Body Recovery from Water (IRCG / AGS)
- Bomb Alert (AGS)
- Burglar Alarm (AGS)
- Cave Rescue (AGS)
- Civil Disturbance (AGS)
- Incidents involving Explosives / Suspect Devices or Cylinders – unless requested by An Garda Síochána to attend on standby in the event of a fire (AGS/ EOD)
- Lock In – No Life at Risk
- Lock Out – No Life at Risk
- Medical Emergencies (other than Dublin Fire Service which provides an emergency ambulance service. (HSE NAS) (Discussions are underway with the HSE on possible fire service support for their statutory functions)
- Missing Person, unless requested by An Garda Síochána to attend for a specific role –(AGS/ Civil Defence)
- Mountain Rescue, unless requested by An Garda Síochána to attend in support (AGS/ MCR Voluntary Sector)
- Rescue of Animals (RSPCA)
- Ship – Not Moored (IRCG)

Emergency Management Roles for Fire Services

Emergency Management has been significantly advanced in Ireland in the last five years. The fire services have been recognised as making a very major contribution to this development, and the officers of the service provided a core of expertise which led the development of the Framework for Major Emergency Management (2006) and the subsequent Major Emergency Development Programme 2006 – 2008.

Part of the objectives of this latter programme was to embed a level of emergency management capability within the broader 'Principal Response Agencies' (the local authorities, An Garda Síochána and the Health Service Executive), as well as to ensure that structures and working arrangements were put in place to enable effective inter-agency working. These arrangements have been utilised in a number of crises, including the management of severe weather events (November 2009, January 2010, December 2010) as well as the Cork Airport crash (February 2011) since the development programme was put in place.

Each fire service should continue to undertake the following emergency management roles

- Preparing the fire service itself for large scale and inter-agency operations, as it will likely be the first local authority service to attend sudden impact emergencies.
- Continuing to lead/ support the Major Emergency Management Committee within the local authority
- Continuing to support/ contribute to Regional Inter Agency MEM Groups
- Integration of local authority's Civil Defence service with fire/ local authority MEM roles
- Integration of local community and voluntary capacity with emergency management structures in association with the Community and Voluntary sector
- Provision of and running both 'on-site' and 'local' co-ordination role, facilities and support as appropriate

The roles set out above indicate the significant range of services provided to communities by fire services including community fire safety, technical fire prevention, building control, dangerous buildings, operational response which

extends beyond extinguishing fires, to response to a range of rescue situations, hazardous materials incidents and road traffic accidents, as well as emergency management and civil defence. There are a range of titles in use at the moment by fire authorities to describe their fire services. In order to standardise and encompass this range the title 'Fire and Civil Protection Service' should be adopted by all fire services.

Chapter 5 – Priorities and Targets

Introduction

National average rates for different categories of fires are given in Table 7.1. General longitudinal trends in relation to these categories of incident types are portrayed in a KCS Research Report.

In this chapter challenging but realistic targets are set for the reduction of relevant categories of fire incidents in Ireland. These targets will, in effect, determine the priorities of Irish fire services in the period ahead. The national level targets will be translated into local fire service targets, and down to individual fire station level. This is intended as a further strengthening of the national/ local dimension of fire safety and services delivery with the objective of protecting the public.

Categorisation of Incidents

This document adopts a view of managing fire safety which is based on a risk management approach and the prioritisation of service objectives. Risks are categorised by a three-level hierarchy – primary, secondary and tertiary – which is used as a basis for service planning and activity management.

The three-level categorisation fits with the matrix shown in Figure 2.2. It recognises that many very small fire incidents occur every year which are dealt with by people in the immediate vicinity who extinguish the fire themselves, and where there are limited or no consequences. Such incidents are not reported to fire services and are represented on the left-hand column of the matrix. The next column is described as fires which have limited potential impact, while the serious, very serious and catastrophic consequences comprise the three right hand columns.

Primary Incidents are fires or other incidents involving reported casualties or situations requiring rescue of persons; all fires in buildings including dwellings (other than chimney fires); fires in vehicles carrying dangerous goods; road traffic and hazmat incidents with persons reported; all incidents involving aircraft and rail transport.

Secondary Incidents are fires involving vehicles (other than cars), trailers or other methods of transport; other categories of incidents including RTAs, hazmat etc not involving persons reported; outdoor storage plant and machinery, haybarn and farm/ bog/ gorse/ forestry or related property fires.

Tertiary Incidents are those incidents which pose little or no threat to life and the property damage resulting is likely to be very limited. This category includes chimney fires, bin/ skip/ rubbish/ refuse fires, car/ motorbike fires, outdoor fires including bonfires, fences/ hedges, grass, tree or other outdoor fires.

This three-level grading of incidents is applied to all the categories of incidents listed in Appendix A.

National Objectives and Targets

In this section the national objectives and targets for various categories of fire incidents are set out for the period up to the end of 2015, unless another timescale is specified in the target itself. Where percentage reductions are specified, the base-line figures should be based on the previous three-year averages to minimise the impact of the typical annual variations that occur in fire services statistics. The RBA reports referred to in Chapter 2 provide three-year average baseline data for this purpose. It is also understood that there are significant regional variations in certain categories of incidents which will impact on the targets set by individual fire services.

Fire Fatalities

The current average national 3 year **fire death** rate (38-40 pa) is 8.4 deaths/ million population. The aim is to continue the long-term declining trend and the target is to reduce the rate of deaths per million population to 6 per annum by 2017.

Smoke Detectors in Homes

A key objective to achieving the fire fatality target above is to work towards having 100% of domestic dwellings fitted with working smoke alarms, with 90% of householders adhering to fire safety messages regarding working smoke alarms by the end of 2017.

Smoke detector

Dwelling Fires

Continue the long-term declining trend for domestic **dwelling fire rate** (4500 pa) below 100 fires/ 100,000 population to 80 dwelling fires/ 100,000 population by the end of 2017.

Chimney Fires

Chimney fires rate (5000 pa) is exceptionally high in Ireland, at a rate of 110 fires/ 100,000 population. It is intended to reduce this figure by 30% to 3500 chimney fires pa, or 75/ 100,000 population by the end of 2015.

Overall Fire Rate

The **overall fire rate** (35,000pa) at 800/ 100,000 population has been relatively level, and it is intended to pursue a declining trend to a target of 27,000 fires pa or 600/ 100,000 population over five years, through a focus on reducing tertiary fires by the end of 2015

Overall Incident Rate

The overall incident rate (55,000pa) at 1280/ 100,000 population has been relatively level, and it is intended to pursue a declining trend to a target of 45,000 incidents or 1000/ 100,000 population by the end of 2017

National Targets for Demand Reduction

While it is recognised that there are a number of factors that can impact on fire rates (e.g. an extended dry period – especially in Spring/ early Summer – can result in significant increases in grassland/ bog/ forest fires) one of the main objectives in setting targets is to manage demand, especially tertiary fires and to reduce this towards the target levels.

Tertiary Fire Reduction

The target for reduction of tertiary fires is 22% over 5 years, with a specific 30% decrease in chimney fires over 3 years.

The potential mechanisms by which these targets may be achieved will be set out in relevant Good Practice Notes. The first step involves close study on a fire station by fire station basis, and comparison with national rates, leading to identification of significant anomalies and selection of local priorities. The mechanisms include:

- Increased use of the "Controlled Burning" notification system by farmers to avoid third party call-outs to grassland fires;
- Targeted Community Fire Safety initiatives, including highlighting the potential public safety impact of unnecessary deployment of fire services on tertiary incidents;
- Standardisation of core activities as discussed in Chapter 4.

The community fire safety initiatives include a variety of strategies including community safety such as educating people as to the real impact of calling out fire brigades for tertiary fires, arson and multi-agency prevention programmes on things like malicious burning of cars, etc.

Local Fire Service Targets

Each fire service will examine the trends for its own functional area in relation to the national objectives set out above and establish relevant local targets for the periods and report on delivery of these to the National Directorate at routine intervals.

It can be anticipated that there will be variations (sometimes significant) across station areas in relation to national and fire service average incident rates for common incident categories. The objective is to reduce excessive deviations from norms for individual fire stations. The upper limit multipliers should be a target of 1.5 times the fire service average, but averages for station areas within fire services should generally be between 0.75 and 1.25 of service averages.

Chapter 6 – Fire Safety

Introduction

Fire safety is considered in this Chapter. Fire services provide an array of safety enhancing services known as "community fire safety" and statutory "safety engineering, education and enforcement" roles. The services provided by fire authorities to protect communities include a range of fire safety approaches including advisory, promotion, auditing/licensing, inspection and enforcement. Additionally, the fire service provides fire safety auditing services – including review of fire safety design and enforcement under building control legislation as well as licensing the storage of Petroleum Substances and licensing of certain public events.

This chapter also considers the issue of domestic fire safety. While not within the ambit of legislation, this is a very significant area as most fire deaths in Ireland occur in the home.

The primary goal and role of fire services activity is to protect life and to prevent injury/loss from fire where this is possible. To this end, the available resources are targeted at preventing fires where possible, and ensuring that buildings are fitted with appropriate early warning systems and other facilities to alert and protect occupants. While fire services strive to reduce the risk of fire – both the probability of fire occurring and the consequences where outbreaks of fire happen – communities continue to experience fires. The response service discussed in the next Chapter is the third and final approach to minimise injury, loss of life, and damage to property as a result of fires and other emergencies.

Legislation

Legislation passed by the Oireachtas governs fire safety in Ireland, and the following are the main legislative provisions in relation to fire.

Fire Services Act

- In Buildings other than dwellings, Section 18(2) of the Fire Services Act places responsibility for fire safety on the *"person in control"* of the building. The Department of Environment, Community and Local Government has published a number of Guidance Documents to help the persons in control to meet this statutory obligation (See Appendix B).
- The subsequent sections of the Fire Services Act give Fire Authorities a suite of enabling/ enforcement powers, ranging from giving verbal warnings to

issuing closure notices, which they may use where they are not satisfied that *"persons in control"* are complying with their statutory duty.

- Many categories of Places of Public Assembly (Pubs, Dance Halls, etc) are subject to additional licensing requirements in the District Court, and Section 24 of the Fire Services Act provides for fire authorities to attend and give evidence in relation to fire safety at court licensing sessions.

Building Control Act & Building Regulations

- The Building Control Act of 1990 and associated Regulations introduced standards for design and construction of buildings, including standards for fire safety in buildings. The Regulations also introduced the 'Fire Safety Certificate' system whereby fire authorities review the fire safety aspects of building designs for compliance with the building regulations.
- Through this system, professional fire services staff check the design of buildings for compliance with fire safety standards. The fire safety standards are set out in a Document called "Technical Guidance Document B – FIRE".
- This system has been in place since 1992, and given the scale of the building boom in the intervening years, there has been a very significant contribution to mitigating the threat of fire in Ireland by ensuring that designs contain appropriate fire safety features in relation to means of escape, construction and assistance for fire brigades.
- An enhanced inspection and certification regime is currently being developed to ensure that good design is translated into well constructed buildings.

Dangerous Substances legislation

- The Dangerous Substances Act of 1979 and associated Regulations makes provision for the licensing of retail and private petroleum stores, bulk stores and jetties dealing with storage/ sale/ distribution of certain classes of petroleum substances. Fire authorities licence the retail and private petroleum stores.
- This system is currently under review by Dept of Jobs, Enterprise and Innovation who are the sponsors of the Dangerous Substances legislation

Procedures for Fire Safety Activity

A set of draft national procedures/ flow-charts for the full range of fire safety related activity is under development. These will be issued by the National Directorate as Good Practice Notes and adopted and used by all fire authorities as the basis for consistent and effective fire safety activity in the years ahead.

Reference Standards

The Guidance/ Reference Documents/ Standards to be employed in each area of fire safety work are set out in Appendix B. This document makes explicit the status of the full suite of "National Standards" and "National Guidance" documents used by Irish fire services. These documents provide the basis for consistent application of fire safety provisions in the years ahead, and it is expected that all authorities who are not currently doing so will be implementing/ using these in full before the end of 2013.

Fire Risk Management in Individual Buildings

There are many thousands of individual buildings which are covered by the provisions of Section 18 (2) of the Fire Services Act 1981 dealing with the responsibilities of the "person in control". The Department of Environment, Community and Local Government has published a number of guidance documents targeted at specific sectors (e.g. Nursing Homes, Guest Accommodation, Hostels etc) to assist the 'person in control' in discharging their statutory duties.

The fire authority's approach to managing risk is generally through a fire prevention/ protection programme. This normally involves inspections and auditing of fire safety in premises and fire safety campaigns. Premises are prioritised on a risk management basis, with a prioritised inspection programme aimed at the highest risk premises. A methodology for risk-indexing individual premises, which is intended to underpin this aspect of fire services work, is under development. The purpose of this system is to ensure that work and programmes are targeted in the right areas and are proportionate to the risks. It is also intended to set out a consistent methodology which the public can be familiar with and understand, and be informed of potential issues which might affect their safety. A consistent approach also helps the 'person in control' to understand the fire safety processes which apply to them individually or to their sector.

The risk assessment methodology is based primarily on identifying risk factors such as the occupant characteristics, the building factors, the safety management systems and the design codes applied to the building. Depending on the assessed risk, a range of proportionate actions are proposed ranging from no action warranted, through advisory, warnings, and enforcement proceedings up to and including closure notices

In parallel with the inspection/ audit programme fire authorities promote awareness/ education for the "person in control" of priority sectors to inform them of their responsibilities and how to meet these responsibilities, as well as outlining the fire authority's role and enforcement powers.

Fire authorities undertake specific During Performance Inspections (DPIs) programmes for Places of Public Assembly, and a "Good Practice Note" will be prepared in respect of this function.

It is intended that the communities which such fire prevention activity is intended to protect should have access to an appropriate level of information on individual premises. Ideally, a 'public file' on premises would be available for consultation by interested members of the public. The kind of information in a 'public file' would include:

- records of fire safety certificates granted in respect of the premises
- records of fire safety audits/ inspections
- records of licencing applications and conditions attached to licences
- records of complaints received
- records of advisory, warning or enforcement actions
- records of prosecutions for fire safety offences

Crowd Event Safety

- There are a wide range of events including music, sport and other events held annually in many communities. Some of these events are licensed under the provisions of the Planning Acts, 2000.
- Fire services consider crowd safety issues when considering Fire Safety Certificate applications relating, for instance, to the design of a new stadium.
- While the primary responsibility for ensuring public safety rests with promoters, fire authorities contribute to event safety management through input at both licensed and unlicensed events. The provisions of the Framework for MEM and subsequent work by the MEM National Steering Group have put in place inter-agency collaboration arrangements for dealing with statutory agencies input to public safety at crowd events.

Domestic Dwelling Fire Safety

More than 90% of fire deaths in Ireland occur in the domestic setting. However single dwellings do not fall under the ambit of the Fire Services Act because enforcement of legislation in relation to fire safety in individual dwellings would be seen as unwarranted interference by the state in people's homes. The implication of this is that the onus is on individuals to protect themselves and their families from fire in the domestic dwelling setting.

In this area, the themes and practices of what have come to be termed 'Community Fire Safety' and fire safety promotion are the significant means by which people are assisted in protecting their families from fire in their own homes.

The design and construction aspects of domestic dwellings are regulated by the Building Control legislation, and there are requirements in relation to the installation of domestic smoke detection and alarm systems in dwellings. Design standards in TGD B on smoke alarm requirements are in line with international benchmarks and have had significant impact.

The main approach to protecting the public in their home is to reduce the number of dwelling fires which occur. Fire services are typically called to some 4,500 domestic fires every year, and one of the key targets set out in the previous chapter is to continue to drive down the number and rate of house fires year on year.

The international literature identified a number of key factors which impact on the outcome of dwelling fires. In particular, where persons are under the influence of substances such as alcohol or drugs which impair their perception of danger, or are in close proximity to the origins of the fire, the probability of safe escape is greatly reduced.

Community Fire Safety

While there have been efforts over many years to improve fire safety in the home through promoting specific fire safety messages, most notably messaging regarding smoke detectors and alarms, there has been a move towards what is termed 'Community Fire Safety' in recent years. Community Fire Safety activities involve:

- The Primary Schools Programme, where third class pupils in primary schools are engaged by specifically trained local fire-fighters in a fire safety awareness programme;
- The Community Smoke Alarms Scheme whereby smoke alarms are provided to, and installed by, community groups who work with vulnerable persons e.g. elderly people living alone. Safety of the elderly is also furthered by the Security Alert Scheme which enables security in their own home.
- Fire Safety Week where the promotion of public safety education/ messaging is undertaken mainly through National Fire Safety Week, with joint TV/ Media promotion. This promotion of fire safety is a combined activity, with national and local inter-linked initiatives, and is undertaken jointly with Northern Ireland Fire and Rescue Service.

Operational Liaison

Fire prevention activity and information obtained during this work can provide 'operational intelligence' – information which can assist fire services in performing their statutory duties effectively.

Pre-Incident Planning activity can be prioritised on a similar basis as dealing with fire prevention work. As a matter of routine, relevant information obtained in fire prevention activity should be made available to the relevant operational staff. Pre-fire Planning activity should focus on a number of high priority sites and station areas each year.

Preparation of individual, premises specific Pre-Determined Attendances (PDAs) (number and order of appliances) may be appropriate also if required.

Similarly, information and feedback from operational response can inform risk appraisal and the effectiveness of fire prevention work.

Chapter 7 – Fire Service Response

Introduction

The current provision of fire service response is based largely on an evolution of services over the years. Fire stations are generally situated in areas of concentrated population which in turn are the areas with the greatest risk factors.

In this Chapter standards are set out for fire service response in accordance with the statutory framework set out and discussed in the following paragraphs. The provisions of this Chapter are also intended for incorporation into the Fire and Emergency Operations Plan of each fire authority prepared under Section 26 of the Fire Services Act.

In providing guidance on undertaking statutory duties under the Fire Services Act, this Chapter is also cognisant of the 2005 Safety, Health and Welfare at Work Act. The provisions in this Chapter assume implementation of safe systems of work and specifically compliance with fire services national health & safety initiatives. These include the Ancillary Safety Statement, the National Incident Command System, Fire Service Instructions, National Training Standards and Standard Operational Guidance.

As discussed earlier, this chapter is based on achieving an appropriate balance of Needs, Risks and Resources. Specific guidance is provided in the areas of:

- An Area Risk Categorisation Process
- Associated speed and weight of response for each risk category
- Staffing arrangements associated with these responses
- Pre-determined attendances (initial automatic dispatch) for all classes of incident

Legislative Basis for Operational Response

The legal provision governing fire service response is the statutory duty under Section 10 (2) of the Fire Services Acts, 1981 and 2003 which states

S 10 (2) A fire authority shall –

(a) make provision for the prompt and efficient extinguishing of fires in buildings and other places of all kinds in its functional area and for the protection and rescue of persons and property from injury by fire.

In undertaking the statutory duties of Section 10 (2) fire authorities are required by Section 10 (3) to have regard to a number of factors. Section 10 (3) states:

> *S 10 (3) A fire authority shall, in the exercise of its functions under subsection 10 (2) have regard (in addition to all other relevant considerations) to the nature of the fire hazards and the probable incidence of and extent of fires in its functional area, the character of the area and the value of the property liable to be damaged by fires*

The key points of Section 10 (3) are considered in the following sections

"Nature of Fire Hazards"

Fire Hazards extend across a huge continuum, from the thousands of small accidental fires every year which are extinguished immediately by people in the vicinity to, at the other extreme, fires which consume entire buildings and only stop when the available fuel load has burned itself out or is extinguished. Fires in confined spaces pose a hazard (primarily from the smoke produced) to the safety of any person in the vicinity. Fire in buildings of all kinds poses a life hazard to the people in (and sometimes around) them. This is why buildings are required to be designed, built and operated to meet the fire safety standards discussed in Chapter 6. The general intent in technical fire safety is to ensure that there are sufficient escape routes available so that people using the building can become aware of the danger and leave safely in the event of fire breaking out. Where a fire occurs in a Place of Public Assembly and there is failure of fire safety systems, there is a danger that mass fatalities can occur.

The main situation in which fire poses a hazard to life, however, is in the home. There are many causes for the kinds of fires which occur in dwellings, but if persons do not become aware of the fire in its early stages and put it out (if this is possible or safe) or get out of the building, then it may develop to a stage at which it threatens their safety.

Hence, the single most important and appropriate means of protecting people from fire in the home is seen as the provision by householders of working smoke alarms.

In addition to the dangers it poses to life, fire also poses a danger to critical infrastructure including transport, energy and communications, as well as social infrastructure (hospitals and other care establishments, educational establishments etc), and vital industrial and commercial buildings. If such buildings are lost through fire, there may be very significant impact on the specific communities who rely on them and indeed such losses may impact on society at large.

"Probable Incidence and Extent of Fires"

The following national average incident/ fire rates in Ireland are computed using the 3 year average of 2007 – 2009 and the 2008 interpolation of the CSO returns as shown in KCS Research Report – Fire Statistics and Trends.

Table 7.1
National Average Incident/ Fire Rates in Ireland

	Number of Incidents	Divisor	National Average Rate
Total incidents/ 100k pop	56,171	4,376,419	1283.5
Total fires/ 100k pop	35,100	4,376,419	802
Dwelling fires/ 100k pop	4342	4,376,419	99
Dwelling fires/ 100k dwellings occupied	4342	1,586,158	273.75
Chimney fires/ 100k pop	4769	4,376,419	109
Chimney fires/ 100k dwellings occupied	4769	1,586,158	300.66
Other Building[6] fires/ 100k pop	1089	4,376,419	24.88
Motor Vehicle fires/ 100k pop	6213	4,376,419	142
Forest/ Bog / Grassland fires/ 100k pop	2853	4,376,419	65.19
Rubbish outdoor/ 100k pop	8700	4,376,419	198.79
Miscellaneous fires/ 100k pop	5696	4,376,419	130.15
RTAs/ 100k pop	5211	4,376,419	119.07
Miscellaneous Special Services/ 100 k pop	5979	4,376,419	136.61
False Alarms[7]/100k pop	6579	4,376,419	150.33

The Risk-Based Approach project described in Chapter 2 uses available historic data on fire and other categories of incidents to tabulate levels of activity using the fire authority and station ground as the units of analysis. Using three years of data, the "probable incidence" of different categories of fires in a station area is shown.

The incidence of fires within fire station areas varies hugely, from less than 50 calls per annum (probable incidence of the order of one fire per week) to stations dealing

[6] Other Buildings are taken as including Institutional, Industrial/ Storage, Commercial and Places of Assembly

[7] False alarms are taken to include both malicious and good intent alarms

with between 2000 and 5000 calls annually. Analysis of spread of activity in terms of turnouts (fires, special services and false alarms) show that 26 fire stations make 500 or more turnouts per annum, and these stations deal with more than 50% of the annual total fire service work-load.

The probable incidence of fires is one of the indicators of the staffing systems required for fire service response provision, along with consideration of the network of adjacent stations which can also respond into a station area. Staffing systems are related to the level of activity in stations, and include a range from retained crews (who are part-time employees who respond to alerter signals, go to their fire station and mobilise on relevant fire appliances) to full time crewing where firefighters are whole-time employed and are on station 24 hours a day and available to respond immediately on receipt of a turn-out message.

As well as the crewing arrangement, the number and types of appliances in a particular fire station are selected to take account of the probable incidence of fires, as well as the particular types of incidents predominantly responded to. In many fire station areas it is seen that the proportions of tertiary fires is very significant.

Character of the Area and Value of the Property liable to be Damaged

In previous times, fire services were planned mainly on assessment of the element which is described as the "character of the area" in question. The former UK Standards of Fire Cover were first developed in the 1930s, amended in 1955 and 1985, and set out generic area characteristics with attendant levels of fire service response. These UK standards were influential on the establishment of fire services in Ireland, as individual fire authorities tended to use the UK model and apply it in their functional areas.

The Farrell Grant Sparks recommendation in early 2002 that Ireland should move on from the UK standards of fire cover reflected an understanding that the UK was moving towards an "integrated risk management approach" which was duly set down in the Bain Report[8]. The original categorisations were not seen as inappropriate in terms of their descriptions from a fire perspective, but more in need of refinement to take account of factors such as that populations moved in and out of city centre business districts on a daily basis and that fire prevention activity is important in terms of impacting on risk and achieving the objective of public safety.

[8] Bain G 2002. The Future of the Fire Service: Reducing Risk, Saving Lives

The primary emphasis of fire services provision should be to protect the life of those threatened and to rescue them where possible. Efforts on property protection should prioritise infrastructure, followed by individual property protection, taking account of heritage and other considerations

Area Risk Categorisation

The first step in setting standards for fire services is to undertake an area risk categorisation process which results in the area to which the first response is sent by each fire station, known as the 'fire station ground', being assigned a Risk Category(s) Grading. The fire risk categories range across five grades, from very high, high, medium, low to very low risk.

The Risk Category to be assigned to a fire station ground should be judged on considering the following criteria;

- Population of main urban area
- Population Density(s) of the area (per Km2) surrounding main urban area
- Total population of the Station Ground
- Annual Service Demand Level (Based on Number of Incidents occurring in the station area averaged over three years)
- No. of dwellings in the station ground & the Annual Dwelling Fire Rate
- Other building fire rates
- % tertiary incidents
- RTA activity/ (non cleanup) & Special Services rates
- Extent of Individual Special Hazards (e.g. Institutional, Educational, Industrial, Large Scale Retail / Commercial, SEVESO. POPA etc.)

The approach to undertaking the Area Risk Categorisation Process is set out in Appendix C. This uses tabular formats (see Table in Appendix C) and relies on census data, the use of local knowledge and operational intelligence. Risk Based Approach Reports, the Major Emergency Management Risk Assessment and other readily available sources within the local government system (e.g. zonings for planning purposes) will provide an adequate picture to determine risk categorisation, with associated area risk designations within each fire station ground. It is the **predominant risk** in an area that should define its risk categorisation. A number of commercial or industrial buildings in an area predominated by domestic risk would not change a risk categorisation from that associated with the domestic risk.

In applying the risk categorisation system, while it is envisaged that in most cases, a fire station area will fit a single category, situations will arise where an area may be indicated as crossing a number of risk categories set out in Table 7.2 below.

Such situations may become apparent where information about an area appears to place it in two adjacent categories. The categorisations should be seen as indicators rather than absolute determinations in themselves, and this approach is intended as an aid to the judgement of those managing the service.

In some cases (e.g. with extensive or widely varying station grounds) it may be appropriate to sub-divide the station ground and have a number of sub-areas of different designations within the same category or even to have different categories. The initial Risk Categorisation may be refined as more information becomes available over time. Also, in dense urban areas where there appears to be different categorisations within a station ground, it may be necessary to consider grids or geographic areas and look at the scale, density, height and other building characteristics that predominate in that area before deciding on a risk categorisation or area risk designation. It is not seen as necessary or appropriate to undertake a building by building appraisal for the purposes of area risk categorisation.

At the other end of the scale, anomalies may be seen to occur where the number of incidents in a particular category is very small, and care needs to be exercised when calculating fire rates. Such anomalies will be easily recognisable in general and should be discounted.

TABLE 7.2
RISK CATEGORISATION TABLE

Risk Category	Population			Demand/ Need		Incident Rates			Individual / Special Hazards	Area Risk Desig-ntion
	Pop of main Urban centre	Rural Pop density (Persons/ sq km)	Total Pop in Station Area	No of Dwellings in Station Area	Annual Level of Incidents in Station Area	Dwelling Fire Rates/ 100 k of pop	Other Building Rates/ 100 k of pop	RTA/ SS rate/ 100k of pop	Infrastructure Institutional, Recreation, POPA, Educational, Industrial, SEVESO, Shopping/ Commercial	
Very High	>100k	>200	>150	> 50 k	> 2500	>250	>100	>250	Multiples of above on largest scale	A1
	70–100	>200	90 – 150 k	30 – 50 k	1200 – 2500	200 – 250	70 –100	200 – 250	Some of the above	A2
High	35 – 75 k	>200	70 –100 k	20 – 40 k	700 – 1500	150 – 200	50 – 70	170 – 200	Small number of each of the above, on limited scale	B1
	30 –40 k		40 – 80 k	15 – 30 k	500 – 800	120 – 150	30 –50	140 – 170	Some of the above on a limited scale	B2
Medium	10 –30 k		25 – 50 k	10 – 15 k	250 –700	100 – 120	20 –30	120 – 140	A number of each of the above , of medium scale	C1
	5 –12 k	50 – 250	50 – 250	7 – 12 k	120 –300	80 –100	15 – 25	110 – 130	A small number of above, of limited scale	C2
Low	3 –5 k	30 –100	10 – 25 k	3 – 10 k	100 – 130	70 – 90	10 –20	100 – 120	Some small scale premises in above categories	D1
	1.5 – 3 k	20 – 50	6 – 12.5 k	2 – 5 k	50 – 120	60 – 80	5 – 15	80 –100	A few small scale premises in above categories	D2
Very Low	<2 k	<20	<7.5	<4 k	<70	50 – 70	N/A	<80	Very few premises other than domestic	E1
	<1 k	<20	<5	<2 k	<50	<50	N/A	<80	Remote Rural	E2

Designations should also take account of the extent of/ history/ impact of fire prevention work – both community fire safety for domestic and statutory fire prevention work (Fire Safety Certs and enforcement). Also, the Area Deprivation Indices should be consulted, as these are likely also to be an indicator of the domestic fire risk.

It is expected that the significant buildings in the Individual/ Specific hazard column will be readily known for every station ground. As noted above the history/ impact of fire prevention work should be considered in assessing the grading to be assigned under this column. Sites such as SEVESO sites are closely regulated and significant risk mitigation work (including exercises involving the principal response agencies) is likely to have taken place. Buildings or sites which are of special interest because of their scale and importance to a community or region may not therefore be high risk, and the presence alone in an area of such facilities would not necessarily raise an area to high risk or very high risk.

Each fire service will undertake an initial risk categorisation process for its functional area as set out above and detailed in Appendix C, and prepare a short report on the process and outcomes before end of Quarter 2, 2013.

The primary responsibility is on local service management to undertake the risk categorisation process. To assist in the objective of achieving consistent application, each fire authority will present its draft/ proposed categorisations and associated service levels to an External Validation Group, convened by the National Directorate to provide an external perspective on the process. This group will comprise a community sector representative, a representative of the National Directorate, a peer Chief Fire Officer, an external/ international Chief Fire Officer and a local authority Manager. This will ensure, as far as possible, that appropriate risk categorisation is applied to each area and any vulnerabilities are addressed.

Fire Service Response

As noted in previous Chapters, fire services in Ireland have a well-dispersed infrastructure, providing an appropriate generic response which is generally capable of meeting the safety needs of communities.

This section looks at fire service response capability and relates it to the risk categorisations of the previous section. In this way, standard and consistent fire service capability and response arrangements can be determined by each fire service which are appropriate for the general risk categorisations. These are designed primarily around dealing with the domestic dwelling fire scenario, with an enhanced response capability as the category of fire risk is elevated. Arrangements for dealing with large scale incidents are set out in the next chapter.

Pre-Determined Attendances

Fire Service response capacity should be related to risk categorisation as shown in Table 7.3, while the pre-determined attendances (PDAs) for the individual categories of incidents indicate the number of appliances which will be mobilised initially in response to a call for assistance.

The nearest available resource (in terms of speed of arrival) should be deployed to emergency incidents irrespective of administrative boundaries. The primary rationale for deciding the order of attendance of appliances in the PDA should be the nearest geographical resource to the location of the incident based on projected speed of arrival. In certain circumstances, there may be a specific operational requirement to modify this determinant of response, such as the requirement for retention of cover in risk areas in deciding second and subsequent responses. The principle of nearest resource should normally apply as the first response on the PDA and should only be modified where there exists a sound operational necessity for such modification. Station boundaries and pre-determined attendances should be adjusted to reflect this situation, where this is not already the case.

Inter-authority service provision arrangements are generally underpinned by Section 85 Agreements. Arrangements for recoupment of costs will be included in further guidance on inter-authority service provision dealing with governance, management and service delivery arrangements. In all cases, inter-authority funding arrangements should be based on the service provision standards in this document.

There are a significant number of incident types which are used as the basis for managing operational response. A single system of incident categorisation (operational incident types) is set out in Appendix A to this document, together with the associated pre-determined attendance and a primary/ secondary/ tertiary incident grading. The pre-determined attendances may be altered as required by the Incident Commander in light of available information. This Appendix will be reviewed periodically to ensure that it remains appropriate for the purpose it serves.

Each Fire Service should review its response to Pre-Determined Attendances (PDAs) in light of Appendix A and adjust their response to align with this national policy before end 2013

Fire Service Response Capability and Risk Categorisation

While the pre-determined response determines the initial response by category of incident, Table 7.3 below indicates the contingent fire service capability which should be available for deployment in each risk category. This sets out the number

of standard fire service first response (Class B) appliances and associated crews which would normally be available to respond into the specific risk category, before any appliance is deployed. This level of response also comprises the maximum pre-determined attendance envisaged for a specific hazard in an area and will usually be drawn from a number of fire stations. The pre-determined attendance may be augmented by the Incident Commander in light of the information available.

The Risk Category also points to the target travel time for the first and subsequent pumps to arrive at primary and secondary incidents. These targets are based on a 75% confidence at fire service level – ie it is expected that the targets would be achieved on average in three out of four mobilisations by the fire service. It should be noted that these targets are average figures for the purpose of measuring and comparing performance, and many fire services are achieving these targets or better travel times in parts of their functional areas, which may be appropriate for these areas. Given that analysis at service level can be underpinned by significant variations in individual station areas, this data should be reviewed on a station by station basis, bearing in mind the previous point about anomalies which can arise where the numbers of incidents are low in a station area.

No target response time is set for tertiary incidents due to the nature of these types of incidents, but data on response to all categories will continue to be collected and analysed. Appliances may be diverted from tertiary incidents to primary or secondary incidents occurring in their station area.

TABLE 7.3
Risk Categorised
Response Capability

Risk Category	Standard Fire Appliance (Class B) Response Capability	Travel Times	Associated Crew Levels (incl crew commanders)
Very High	1 2 3 4	in 8 mins in 10 mins in 15 mins in 20 mins	5 9 13 17
High	1 2 3	in 10 mins in 15 mins in 20 mins	5 9 13
Medium	1 2 3	in 10 mins in 20 mins in 30 mins	5 9 13
Low	1 2	in 20 mins in 40 mins	5 9
Very Low	1 2	in 30 mins in 60 mins	5 9

For isolated communities such as those living on off-shore islands, a fire service response will be inevitably delayed. A Good Practice Note will be prepared to standardise and further enhance the current arrangements with the Irish Coast Guard for responding to off-shore incidents. It is especially important that such isolated communities are prioritised for Community Safety programmes to ensure that all households achieve the 100% penetration of smoke alarms and have appropriate fire protection facilities from a very early stage

Special Services and Special Appliances

In addition to the provision of response to fire incidents, there is a need for a structured/ planned approach to the current range of special services provided by fire brigades. A Needs Assessment should be conducted for each fire service and each station area. This should take account of historical information and should be undertaken in conjunction with neighbouring fire services as part of a regional approach to special services provision.

In relation to special appliances, the provisions of Table 7.4 should apply.

Table 7.4
Guidance on Special Appliances

Risk Category	Special Appliances Response Capability	Travel Times
Very High	1 Aerial 1 ET 1 ICU	in 15 mins in 30 mins in 30 mins
High	1 Aerial 1 ET 1 ICU	in 20 mins in 40 mins in 60 mins
Medium	1 Aerial 1 ET 1 ICU 1 Water Tanker (if appropriate)	in 30 mins in 45 mins in 75 mins in 75 mins
Low	1 Aerial 1 ET 1ICU 1 Water Tanker (if appropriate)	in 60 mins in 60 mins in 90 mins in 90 mins
Very Low	N/A	N/A

Crewing Levels on Appliances

The following are the normal crewing levels on fire appliances:

- 5 personnel on the first pump mobilised from a station, to include a designated incident commander, with 4 personnel on the second or subsequent pumps mobilised from the same station.

- Additional available crew may travel on the first responding appliance or additional crew required at scene after first pump may travel on another Class B, specials or 4WD as arranged locally.

- While it is preferable for the normal crew of five to be dispatched to all incidents, a minimum crew of 4 (to include incident commander) may be deployed to tertiary category incidents.

- The normal crew with special and support appliances should be two personnel.

    - In full-time stations, there should be flexible assignment of all staff within multi-appliance stations to enable appropriate specials/ other appliances to be brought to incidents (dual crewing).

    - In retained services, when mobilising special appliances in support to incidents where full crew at station is not mobilised, three staff should be alerted (selective calling) to ensure that a normal crew of two personnel for operational specials (Aerial, ET) and two personnel with support vehicles e.g. Water Tanker, ICU.

In situations where fire services consider it appropriate to put arrangements different to the above norms in place, such proposals and the supporting case may be included in the fire service's discussions with the External Validation Group referred to above.

Fire Station Staffing

Table 7.3 above indicates the Class B response capability which would be expected to be in place in the different risk categories. In the higher risk categorisations especially, it is expected that the appliances to meet the indicated response level would be drawn from the surrounding network of fire stations.

Having determined the area risk categorisation, there is need to review crewing arrangements and crewing levels in stations, which may be full-time, mixed or retained with a view to achieving optimal levels of response. "Mixed" in this context

is a station where 1 crew is full-time and second pump retained, or which has full-time crewing for part of 24 hour cycle.

In retained stations, other than where there are minimum staffing levels, rostering of crews should be used to manage the levels of attendance and time-off requirements. It is intended that a Good Practice Note on Managing Attendance of Retained Crews will be prepared.

In full time fire services, 'four watch' systems (based on dividing the hours in the week 168/ 4 = 42 hour weeks) have been in place for many years. In 24/7 services, changing from the 'four-watch' to a 'five group duty system' (based on dividing the 168/ 5 = 33.3 hrs) has potential to provide assured levels of staffing without generating requirements for special compensatory leave and overtime, and can facilitate full working shifts and enhanced team training. There have been significant developments in fire services infrastructure, vehicles and equipment and HR policies since the four watch system was introduced. All full-time fire services should review their current service provision arrangements to determine if the five group duty systems would enhance service provision and/ or provide better efficiency/ value for money in delivering the same levels of services.

Each fire service will review its current service provision in light of the standards set out in this Chapter, and should plan an optimum configuration of stations and staffing arrangements based on the parameters set out in the previous sections.

The Time to Effective Intervention by Fire Services

The extent of area covered by a fire station, and hence the distance which may have to be travelled by a responding fire brigade to the scene of a fire, is one of a range of factors which determine the time to effective intervention by fire services. This is best characterised as the sum of a series of time segments from start of the fire to the time the intervention begins to take effect. In the case of a typical domestic fire this would look like the following:

$$T_{\text{effective intervention}} = T_{\text{perception}} + T_{\text{reaction}} + T_{\text{ECAS/ 999}} + T_{\text{CAMP}} + T_{\text{mobilisation}} + T_{\text{travel}} + T_{\text{set up}} + T_{\text{perform initial tasks}}$$

Where

T (perception) – is the time that elapses before there is a perception of the fire, usually through sight, smell of smoke or activation of smoke alarm;

T (reaction) – is the time that elapses before the person perceiving the fire reacts to take action by putting out an incipient fire, warning others and leaving the building and ringing 999/112.

T (ECAS 999)	–	is the time taken by the Emergency Call Answering Services (ECAS) to process the 999 call and to transfer it to the appropriate fire services Regional Communications Centre;
T (CAMP)	–	is the time taken by the fire services Regional Communications Centre to gather relevant information (address, nature of incident, if persons reported) from the caller and process the information to identify and send a dispatch signal/ message to the appropriate fire service response;
T (mobilisation)	–	is the time taken between receipt of the dispatch signal/ message and the first fire appliance declaring that they are on their way to the incident (booking mobile) as they leave their fire station;
T (travel)	–	is the time spent traveling from the fire station to the incident, and is a function of the distance to be travelled (a function of the location of the fire address relative to the fire station, the speed travelled at and familiarity with destination);
T (set up)	–	is the time from arrival at the scene for the Incident Commander to gather information, assess the situation, make a plan and issue task instructions to the crew, and for the crew to have taken initial steps (don BA and lay out hose-reel/ jet and connect to hydrant or other water source), etc;
T (initial tasks)	–	is the time for the fire brigade crew to perform initial tasks including entry, search, find fire (or casualty), fight fire, etc.

Approaches for minimizing the time for all stages which are amenable to action by fire authorities are set out below. Measuring trends in average response times (mobilisation + travel) to primary and secondary incidents within station areas is seen as a key performance indicator in Chapter 9.

CAMP Performance Measures

The key measure of performance in the CAMP Regional Communication Centres is the accuracy of the resources mobilised in response to the call for assistance. The time taken to deal with an individual 999/112 call can vary significantly, depending on the individual caller involved. Each RCC call-taker (the emergency control operator - ECO) is trained in getting the relevant information in a structured format which enables the nearest appropriate resource to be identified and dispatched in accordance with the relevant Pre-Determined Attendances for that category of incident and that location. Where relevant, the ECO will continue to collect additional information which is added to the mobilisation message sent to the crew

being mobilised and which can help inform the incident commander in responding. Getting 100% accuracy in mobilising the right resource is seen as more important than meeting set target times for call-handling within the Regional Communications Centres. Continuous service improvement by individual operators is a more appropriate approach than pre-scripted target times. A Good Practice Note is being prepared to provide detailed guidance on this approach. Nonetheless, the measures for average call-handling in an RCC are expected to be as follows:

- Correct resource mobilised in 99.9% of cases;
- Pick up of calls from ECAS – 99.9% within 5 seconds
- Time to get information and identify appropriate fire brigade resource to mobilise – 50% of calls within 60 seconds and 80% within 90 seconds

Mobilising Times

The target appliance mobilising times from receipt of alert to booking mobile to incident are as follows:

- Full-time stations – 1 minute
- Retained stations – 5 minutes

Reviewing Response and Learning from Experience

It is considered important that all responses to incidents (other than tertiary fires) are subject to review with the intent of creating a culture of reflection and learning in fire services in Ireland. Potential learning points should be established from the review process and practices adjusted as necessary. A Good Practice Note is being prepared on this subject.

Chapter 8 – Large Scale Incidents and Inter-Agency Collaboration

Introduction

While the previous chapter set out the recommended approach to normal fire service response provision, this Chapter is concerned with particular arrangements that have to be put in place when large scale incidents require significant resources to be mobilised and brought to bear on the situation.

In general a large-scale incident would be deemed to be an incident requiring six or more appliances to deal with a specific situation. Consideration is also given to the situation where a proliferation of concurrent incidents within a fire service or across a geographic region requires mobilisation of significant resources from fire authorities, albeit any specific incident may only require the attendance of one appliance, e.g. widespread wildland fires or flooding.

Incidents may also involve sustaining fire service operations for an extended duration, in some cases over several days and in a few extreme cases over weeks, requiring logistical planning and support. Such incidents put considerable strain on the resources available, in particular for retained crews, where there may not be replacement personnel available if crews are rested during / following on from long duration incidents. It is also necessary to maintain a level of response capability for other incidents when dealing with a large, widespread or extended situation, and this too has to be planned for and arranged.

The National Incident Command System

The National Incident Command System (NICS) is used to manage all fire service response to emergency incidents, but it is particularly necessary to underpin safe and effective large, widespread or extended duration incidents.

Incident Command Units – vehicles designed and equipped to support the incident command function are available and may be deployed to large scale incidents as part of a pre-determined attendance. Early consideration should be given in any large scale incident to requesting an Incident Command Unit to attend the incident, where it is not already mobilised.

An Incident Command Unit.

Apart from the normal on-site management of incidents at an operational and tactical level, it may be necessary to have a level of off-site management of incidents as described above at a strategic level. This is particularly relevant when a proliferation of concurrent incidents occurs, e.g. severe weather incidents, where the Chief Fire Officer or Rostered Senior Fire Officer in an area may decide that it is necessary to co-ordinate the particular arrangements for a number of incidents from a central location such as the Fire Service Headquarters in conjunction with the relevant Regional Communications Centre. This will normally happen where three or more adjacent fire stations are mobilised to an incident/ series of incidents. Maps, communication facilities and IT support are available in fire service HQs for such circumstances.

Managing Large Scale or Protracted Incidents

When large scale or extended incidents occur, it will fall to the RSFO or Chief Fire Officer to manage the resources/ logistics associated with providing and sustaining the fire service response. However, much of the logistical arrangements can be pre-planned. The following table sets out a series of indicative scenarios of the type which should be considered by each fire service. These scenarios are related to the risk categorisation set out in the previous chapter, and should be informed also by the Major Emergency Risk Assessment.

TABLE 8.1
Preparation for Large Scale or Protracted Scenarios

Risk Categor-isation	Indicative Scenarios	Appliances deployed	Fire-fighters and crew commanders to sustain operation	Indicative Number of Officers required to run operation
Very High	Large-scale/infrastructure fires; Multiple fires or widespread events; Transportation incidents	Scenarios with 6, 12 or 20 Class Bs; 4 Specials (ET + Aerial, ICU.	27 55 90	1 + 3 2 + 5 3 + 7
High	Large-scale/ infrastructure fires; Multiple Fires or widespread events; Transportation incidents	Scenarios with 6, 9 or 12 Class Bs; 3 Specials (ET + Aerial, ICU	27 40 55	1 + 3 1 + 4 2 + 5
Medium	Large Scale fires; Multiple fires or widespread events; Transportation incidents	Scenarios with 6, 8 or 10 Class Bs; 2 Specials, ICU	27 36 45	1 + 3 1 + 4 2 + 5
Low	Large Fire; Multiple fires or widespread events; Transportation incidents	Scenarios with 4, 6 or 8 Class Bs Special + ICU	18 27 36	1 + 2 1 + 3 2 + 4
Very Low	Large fire; Multiple fires; Transportation incidents	Scenarios with 3 or 5 Class Bs; Special + ICU	14, 23	1 + 2 1 + 3

Maintaining a Response Capability

One of the tasks of the Chief Fire Officer or Rostered Senior Fire Officer when a very large incident occurs, or where there is a proliferation of concurrent incidents, is to ensure that a resource is available, albeit not necessarily from the nearest station, within a reasonable travel time to deal with any other primary or secondary incidents that may arise while resources are committed to the incident(s) on a large scale.

The RSFO may also have to prioritise the deployment of the available resources on the basis of information available, as it may not be possible to provide immediate response to all requests for assistance arising from widespread situations, and assigning resources on the basis of the sequence of calls received may not be the optimum use of resources.

"Mutual Assistance"

An individual fire service may not be able to sustain a large-scale or prolonged operation with its own internal resources. Fire authorities are enabled by the Fire Services Act to assist each other and the provision of support on a 'mutual-assistance' basis, and this is the expected norm for fire services. The Chief Fire Officer for the area where the large scale incident is located will engage neighbouring services when required, on the basis of agreed pre-planned arrangements of the type set out above.

It is a straight-forward task to mobilise an initial deployment of fire appliances and associated crews. However, where it is envisaged that large numbers of fire-fighters are going to be required on a particular operation for an extended duration, the mutual assistance provisions become increasingly significant. It is envisaged that a fire authority facing such a scenario, bearing in mind the need to maintain a level of response capability as well, would seek specific numbers of fire-fighting crews from other fire services. In this scenario, it is envisaged that the other fire services would seek staff who would be willing to travel and engage in such operations, bearing in mind the need to maintain their own response capability. The development in recent years of the National Incident Command System, national Operational Guidance and Standard Operational Guidelines, national appliance and equipment specifications and national training all contribute to a situation where officers and fire-fighters from all fire services can readily operate in 'mutual assistance' mode.

It is expected that the host fire service would pay costs associated with such 'mutual assistance' mobilisations.

Welfare of Personnel in Extensive and Extended Duration Incidents

While arrangements are established for the welfare of personnel at a normal incident response, the welfare of personnel at large-scale incidents has to be factored in and balanced by the Incident Commander with the needs of the situation and the resources available. It is generally recommended that where possible, individual personnel should not have to work for excessive periods at one time, or where they are required to work repeat shifts if the incidents(s) are protracted over a number of days. The Chief Fire Officer, or Rostered Senior Fire Officer, will make suitable arrangements to ensure crews are rotated and adequately rested during large scale and protracted incidents. Other aspects of welfare arrangements for the crews also need to be considered and suitable arrangements put in place.

Good Practice Notes for 'mutual assistance' arrangements and learning from experience of dealing with large, widespread and extended situations are being prepared.

Inter-Agency Collaboration

Fire services work with An Garda Síochána and the National Ambulance Service in the course of responding to many incidents. The management of large-scale or concurrent incidents will, in general, also require collaboration with other emergency services and/ or utility companies in order to deliver a safe, successful, efficient and effective outcome to the incident(s).

The Fire Service Incident Commander on-site is easily identifiable by wearing the Incident Commander Tabard as prescribed in the NICS. At large scale incidents the presence of an Incident Command Unit can help with the above inter-agency processes. At fire incidents, the Fire Service Incident Commander should arrange to meet and share information/ co-ordinate working arrangements with the heads of other agencies as outlined in the NICS. The Chief Fire Officer or Rostered Officer may also decide to meet the personnel in charge of other agencies at a suitable off-site location.

Major Emergencies

Larger incidents that are beyond the normal capabilities of any one Principal Emergency Service may be deemed to be a "Major Emergency". The personnel that are authorised to declare a Major Emergency have been pre-nominated by each agency and include fire service Incident Commanders. The arrangements for dealing with Major Emergencies are set out in 'A Framework for Major Emergency Management' (2006) along with the associated Appendices and Guidance Documents. The arrangements for inter-agency co-ordination and collaboration have been embedded in the principal response agencies through the training and other development work undertaken as part of the Major Emergency Development Programme 2006 – 2008. Inter-agency preparation continues to be driven within these MEM regions. The MEM arrangements have been deployed to manage the extensive flooding and severe weather emergencies of recent winters and may be deployed for inter-agency collaboration, even where a major emergency is not declared.

The Framework sets out important benchmarks, including the concept of 'lead agency' which gives both a mandate and responsibility for co-ordination of inter-agency activity. It also provides clarity regarding the roles and responsibilities, including health and safety, of all responding personnel. The arrangements and guidance provided in the above documentation may be used for managing all incidents, and not just reserved for Major Emergencies. Fire service incident commanders are encouraged to activate, utilise and participate in these inter-agency co-ordination arrangements at normal as well as at major incidents, especially where the incident is fire related.

Working with Voluntary Emergency Services and Communities

Large scale or extensive incidents may necessitate fire services working with Voluntary Emergency Services or community groups or even individual members of communities who have special equipment or knowledge which can be helpful to resolve a situation.

Local Authorities operate the Civil Defence service, which is a statutory organisation of volunteers. The Civil Defence volunteers provide a second-line Voluntary Emergency Service which can be used to support the Principal Emergency Services. The Framework for Major Emergency Management recognises the role of Civil Defence and other Voluntary Emergency Services, including Mountain and Cave Rescue Services, in response to large scale incidents. The integration of VES into the emergency response capability was part of the Major Emergency Development Programme, and the VES have adjusted their preparations to fit with the provisions of the Framework. The benefits and contribution of the Voluntary Emergency Services during the flooding and severe weather episodes of 2009/ 2010 have been widely recognised.

Many Civil Defence units throughout the country have an Auxiliary Fire Service capability for response to specific incident situations and may be called on to assist with the response to large scale flooding, wildland fires, pumping water etc. Civil Defence units also provide other services for communities such as Water Rescue, Body Recovery, Wide-area searching, etc. As well as its emergency service capability, the local authority's Civil Defence services have significant logistical capability, including both transportation and welfare, and this should be integrated with the Fire Service for response to an agreed range of fire-related incidents and to support fire service 'mutual assistance' operations. Use of fire service personnel as Civil Defence training instructors, using fire service equipment and common standard operating guidance may assist in reducing past difficulties with effective deployment of the Civil Defence service in support of fire services at large-scale or extensive incidents.

There may be other specialist volunteer agencies operating within or with a capability to support a Fire Authority in its functions. For example Mountain Rescue Teams (MRTs) have specialist knowledge and are best equipped to assist a fire service in responding, for example, to an aircraft incident in a mountainous area. Red Cross units will be capable of providing front-line humanitarian aid/ support for people affected by large scale incidents. The work done in collaborating with these agencies in the Major Emergency field should be used by fire services, so that resources are identified in advance, Memorandums of Understanding/ agreements should be prepared as required and joint training/exercises arranged as appropriate.

It is sometimes appropriate and necessary to harness specific vehicles or equipment owned by individual members of the community which could greatly assist in fire service operations. For instance, tractors and slurry tankers may be better suited and more versatile than fire appliances for applying water to defend property against wildland fires. Where a fire service intends to use such resources, it is recommended that the Civil Defence "Community Volunteer" scheme is activated to provide for co-ordination, control and insurance of such resources.

Defence Forces Assistance

In certain situations it may be appropriate for a fire service to seek the assistance of the Defence Forces, and subject to the exigencies of their own operational needs, Defence Forces may assist fire services. The arrangements for seeking and mobilising Defence Forces are set out by Circular Letter.

Reviewing Large Scale Operations

The Incident Commander will prepare a specific report on all large scale incidents, with a view to identifying learning points.

It may also be appropriate in specific circumstances for the National Directorate and/ or peer services to review aspects of specific incidents with a view to establishing learning points and to promulgate such lessons learned through development of new or review of existing guidance and the annual central training programme.

Chapter 9 – Quality Assurance and Performance Reporting

Introduction

The primary purpose of the "Keeping Communities Safe" project is to ensure that consistent, quality and effective services are provided to protect the public. A key feature of any new system or methodology is the ongoing review of the implementation process, and benchmarking the service provision against the expected norms and processes set out in the various sections of this document. This Chapter proposes an approach to quality assurance which is based on a selected range of targets and criteria and builds on a number of current key performance indicators.

Quality Assurance

It is the job of senior service management to establish the culture of quality and consistent service delivery for the public and to ensure that the appropriate processes are in place and that those with supervisory responsibility and staff are familiar with and understand the expected norms. Quality assurance systems are intended to ensure that the management structure is delivering the explicit norms and good practices within individual fire services.

In some situations, quality assurance systems such as ISO are in place for specific fire service functions. This includes the Regional Communications Centres which handle 999/ 112 calls for assistance from the public.

Some specific fire service activities are subject to external scrutiny routinely to ensure compliance with expected norms. Aspects of fire service training activity are audited to comply with the Further Education and Training Awards Council system. Similarly, auditing of safety management systems is now regarded as a norm.

Customer feedback is a key mechanism for measuring the extent of delivery of quality services to the public and good practice in this regard has been established in a number of fire services.

Quality Assurance in Fire Safety

Individual items of fire safety work are carried out under supervision of senior officers and in accordance with the fire authority policy and procedures for fire safety work. Fire safety work is assigned to appropriate personnel, taking account of the qualifications, training and experience of the personnel concerned. Where

appropriate, a senior officer may assist with work assigned, to ensure the work is carried out to suitable or required standards, and/or to progress the development of the personnel assigned the work.

Personnel are encouraged and facilitated to attend at appropriate continuing professional development events to assist them in keeping up with new developments in fire safety standards and with application of standards.

The issue of professional decision-making has been under scrutiny in a number of fields in recent years. Given the importance of fire safety decisions, and the kind of scrutiny which could arise, it is appropriate to consider the range of enforcement options available, and the potential impacts of these and to set out a firm basis for professional decision-making in fire safety. A Good Practice Note is being prepared on this issue.

Performance Measurement

A number of key targets or measures of success of 'Keeping Communities Safe' have been indentified earlier in this document and are further outlined below. Due to the extensive nature of services delivered by Fire Authorities, it is neither feasible, practicable or necessary to gather data for all aspects of service delivery for all Fire Authorities. A more appropriate approach is to select a number of key performance indicators and to track trends over a period of time. Absolute figures and statistics are, in themselves, not necessarily the measure of success, but the trends over time are significant indicators.

Fire services will report to the National Directorate on the extent to which they are engaging with the initiatives and achieving the targets set out in this document. This will be summarised into an aggregate annual performance report on fire services, which will replace the current Annual Bulletin format of statistical reporting.

Each Fire Authority will set out its approach with regard to all items identified in this document in the revised Section 26 plan (see Chapter 10 on Implementation). Annual Service Development Plans will also be produced and monitored.

The collection and processing of data on fire service activity is not an end in itself but a means to continuous review of performance and service improvement.

Data for Performance Measurement

Timely, accurate and independently-validated data is necessary to underpin activity reporting and quality assurance. Data is available from a number of sources. The primary source for all operational data is the data recorded on the Incident Report

Form. From this source local, fire authority and national level management information reports are derived. It is intended to revise the National Incident Report Form to standardise the collection of data in relation to incidents. However, in the interim Fire Authorities should ensure that the data collected on Incident Report Forms is sufficient and accurate for detailed operational analysis. Geo-coding of incident location is particularly important for response measurement and service planning.

The three fire services Regional Communications Centres also assemble and hold relevant data, which is currently returned on a daily basis to Fire Authorities. Following the Review of the CAMP system, it is intended to develop the RCCs role as data centres where data is collected and analysed and agreed reports are generated and distributed on behalf of fire authorities.

Other existing systems, including the HR element of the Core Time Management System may also be used to obtain data in relation to personnel training and attendance records.

Key Areas for Performance Measurement

Earlier chapters of this document outline the overall approaches for Fire Authorities to comply with. Specific targets and performance measures are re-stated in the following paragraphs along with other targets that are deemed to be best practice norm targets. The following sections set out a list of objectives and targets that Fire Authorities should benchmark their individual performance against, and which will form the basis for performance reporting. Guidance is given at the end of this section on setting targets and preparing an annual report on same for these targets.

It is noted also that aggregated statistics of the kind required for national reporting may mask significant variations and patterns. It is for this reason that the individual fire station was chosen as the basic unit of analysis in the risk based approach reports referred to earlier.

Fire Service Response

In the area of response, these sections reflect the systemic view of fire service response discussed in Chapter 7.

Mobilising of Fire Services

- It is expected that the average mobilisation time of the first appliance should be less than 1.5 minutes in full-time fire stations and it should be less than 6 minutes in retained stations. However, the target should be 1 minute for full-time brigades and 5 minutes for Retained Brigades. It is recognised that

many brigades mobilise to call-outs quicker than these average figures. Fire Authorities should consider this data on a station by station basis and should, where the mobilisation times consistently exceed this average figure, analyse the reasons for this and determine what initiatives or changes would improve mobilisation times. It is accepted in the case of retained Brigades that there may be factors outside the control of the Fire Authority that impinge or delay mobilisation times in some cases.

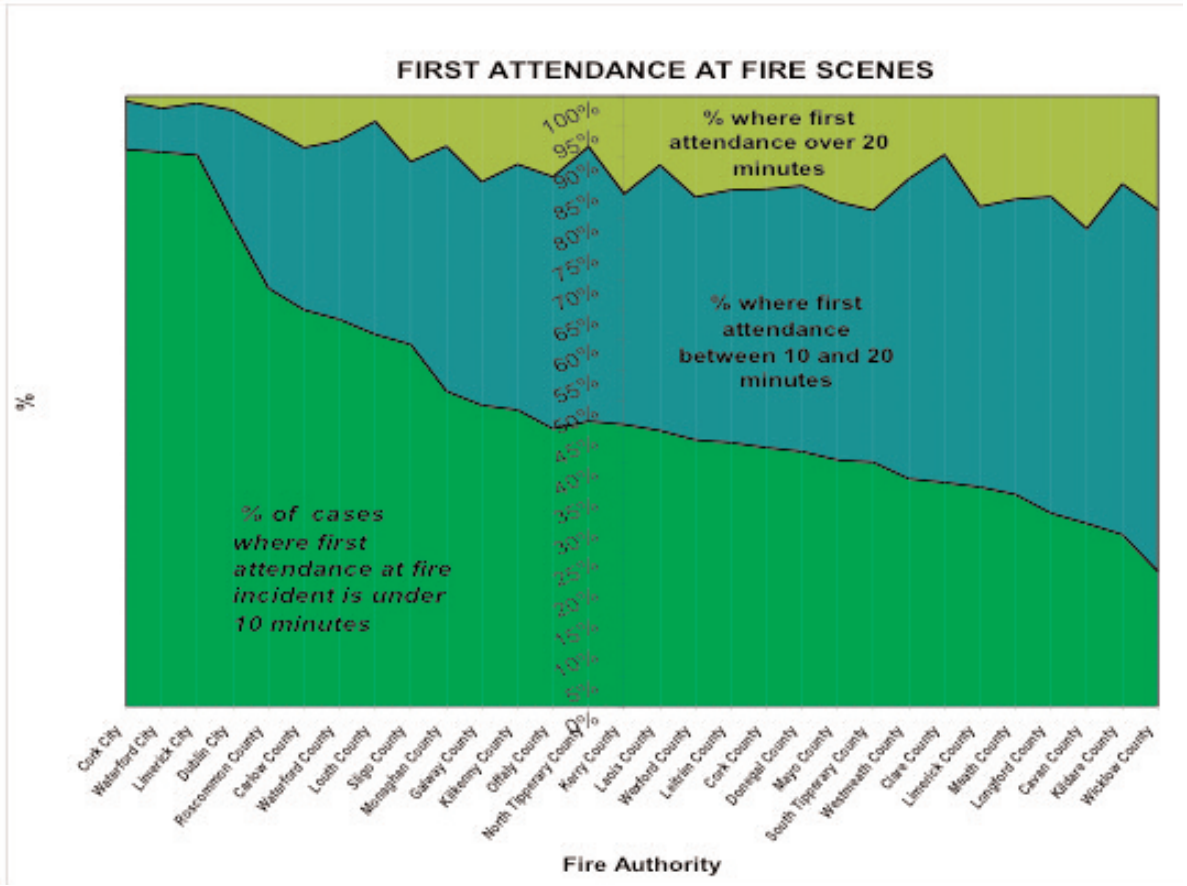
Crewing Levels

- Consistent achievement of normal crewing levels is regarded as a key measure of effective and safe delivery of fire service response. Brigades need to measure attendance and crewing levels therefore to ensure that norms are achieved and any significant deviations are recognised and remedied.

Travel Times to Incidents

- As noted in the earlier chapter, travel time is a function of incident location relative to the fire station. Fire Authorities should measure travel times for the first responding appliance to incidents. This should be derived from CAMP data and reported on an individual station basis separately for primary and secondary incidents, as well as aggregated for all incidents and for the overall Fire Service. These travel times should be reviewed against the travel times outlined in Chapter 7 above, and where the travel times are significantly exceeded, an analysis should be carried out to determine any initiatives including community fire safety which can be put in place to enhance the safety of communities in the area.

- Fire services should continue to record the percentage of cases, for both fires and other emergencies, by station and for the overall Fire Authority where the Fire Authorities attend incidents within 10 minutes, between 11 and 20 minutes and greater than 20 minutes. Fire Authorities should aim to maintain current rates for within 10 minutes and where possible introduce local initiatives to increase this percentage and to reduce the percentage of the other two categories.



- As well as setting targets for the various stages over which there is a degree of control, it is useful to record the travel and intervention times to facilitate comparative management – ie are the long term trends improving/ dis-improving overall or in individual fire stations? Also are there issues/ aspects which analysis can identify and be worked on to improve in a continuous service improvement approach? These figures have been recorded in the LGMA service indicators, and indicate an overall satisfactory approach.

- Fire services should record the extent of the fire upon initial arrival at all structural fires. The Incident report form should clearly identify if the fire has progressed beyond the room of origin at the time of arrival, and also if the fire spread further throughout a structure after the arrival of the Fire Service. Trends in these two factors should be graphed over a period of time. Any deterioration in these trends should be analysed and a determination should be made on any possible initiatives that could be put in place to improve the trend.

Incident Rates

- Fire Authorities should aim to have an ongoing downward trend in their domestic dwelling fires from the current national rate of 100 fires per 100,000 population per annum and to aim for this rate to be 80 dwelling fires/ 100,000 population. Fire Authorities where the domestic dwelling fire rate is higher than this should analyse all available data and determine if any initiatives can be put in place to reduce the rate, in particular Community Fire Safety initiatives.

- Fire Authorities should aim to reduce the number of Chimney Fires in their Fire Authority by 10% each year for the years 2013, 2014 & 2015. By the end of 2015, the rate of Chimney Fires in each Fire Authority should be less than 75 per 100,000 population. Fire Authorities where the rate of Chimney Fires is currently higher than 110 per 100,000 population should analyse all available data to determine, if possible, the reasons why the rate is currently so high and introduce initiatives to reduce this rate.

- Fire Authorities should aim to reduce progressively the overall fire rate in their Fire Authorities to 600 per 100,000 population over a 5 year period. Fire Authorities where the overall fire rate is currently higher than 800 per 100,000 population should anlayse all available data to determine, if possible, the reasons why the rate is currently so high and to introduce initiatives to reduce this rate.

- Fire Authorities should aim to reduce progressively the overall incident rate in their area to 1,000 per 100,000 population over a 5 year period. Fire Authorities where the overall fire rate is currently higher than 1,280 per 100,000 population should analyse all available data to determine, if possible, the reasons why the rate is currently so high and to introduce initiatives to reduce this rate.

- The numbers of fire deaths are such that individual fire authorities will not be able to have statistically meaningful annual data and should therefore analyse 5 years of data in relation to fire deaths. Fire Authorities should aim to have less than 1 death per 100,000 population per annum in their Fire Authority averaged over a 5 year period. Fire Authorities where the Fire Death Rate is higher than this should analyse all available data and determine if any initiatives can be put in place to reduce the rate, in particular Community Fire Safety initiatives. In addition to recording Fire Deaths, Fire Authorities should also record the number of casualties that are both rescued and that self-rescue on an annual basis. This data should be recorded on both the Incident Report Form and with the Regional Communications Centre.

Community Fire Safety

- Each Fire Authority should have a policy on Community Fire Safety (CFS) and the initiatives it intends to implement. Further details on initiatives to be considered are outlined below;

  - The main initiative and most cost effective method of reducing fire deaths is to have working smoke alarms fitted in all domestic dwellings. It is recommended that Fire Authorities work with the Community Sections of their Local Authority to ensure that all domestic dwellings in their Fire Authority are fitted with at least one working smoke alarm. Ideally, there should be two smoke alarms fitted to all single storey dwellings and four fitted to two-storey dwellings. Ongoing public messaging campaigns should be maintained to encourage members of the public to test their smoke alarms once a week to ensure that they are working. The key measure here is the extent of smoke alarm presence in homes, and the penetration of key messages relating to working smoke alarms.

  - The CFS Schools Programme should be delivered to all third classes in accordance with training provided and printed material supplied as part of the Fire Services Change Programme. It is recommended that this Programme is delivered to all 9 year old children. The arrangements for delivering this Programme should be agreed at local level and will vary from school to school depending on the number of classes within a classroom or third classes within a school etc. The key measure is the percentage of 3rd Classes to which the Primary Schools Programme is delivered annually.

  - Appropriate Fire Safety Campaigns should also be delivered through the Irish Language in Gaeltacht areas of the country, both through local radio campaigns through Irish language and by translation of appropriate Fire Safety posters and leaflets as deemed necessary.

  - Special focus should be given by Fire Authorities to island communities. Community Fire Safety Initiatives including provision of smoke alarms, fire blankets and fire extinguishers, along with training should be implemented for all homes on islands.

  - Respond to requests for presentations on fire safety from community groups.

- Distribute or make available fire safety awareness and promotional materials at suitable events in the functional area.

Statutory Fire Safety Activity

- Fire Authorities should aim to process 100% of Fire Safety Certificates received within the allocated time, including extensions of time.

- Review all licensing applications, inspect premises where necessary, and provide reports to the appropriate court hearing,

- Inspect prioritised premises providing residential care in the functional area on a planned cyclical basis,

- Carry out during performance inspections at prioritised public assembly premises,

- Process all complaints received concerning fire safety,

- Provide a service to respond to all queries received concerning fire safety,

- Make factual information concerning fire safety in premises available for inspection by the public

Major Emergency Management

- Each fire service should clearly define it's role within the Local Authority in relation to the following;

  - Preparing itself for large scale and inter-agency operations including Major Emergencies

  - Participation / Leading / Supporting the Major Emergency Management Development Committee

  - Continuing to support / contribute to the Regional and National Inter Agency MEM Groups

  - Integration of the Local Authority Civil Defence section within the Fire Authority, in particular, joint training and procurement of common equipment for dealing with large scale or a proliferation of concurrent incidents

- Provision of and supporting both ‘on-site’ and ‘local’ co-ordination facilities and support as appropriate

Financial and Efficiency Measures and Indicators

While there are currently a number of indicators for the financial and other resources used for fire services, it is intended to review these with a view to enabling better comparative reporting across fire services. It is expected the move to a more balanced service provision arrangement based on populations bands of 120 – 200, 000 persons, as well as greater consistency and clarity in the roles being undertaken will lead to more meaningful indicators and comparisons than is possible at present.

Chapter 10 - Implementation

Introduction

This Chapter takes a preliminary look at issues associated with the implementation of the approaches to 'keeping communities safe' as set out in this document. Two aspects are dealt with. The first is how to achieve a uniform and consistent approach by all fire services to the implementation of the recommendations in this Document. The second is how the national level will support the development of consistent, quality and value for money fire services in Ireland.

A key focus therefore for this reform programme has to be to achieve an optimum output from the available resources. The challenge is to manage the available resources to achieve a best outcome for the public in terms of their safety, and to minimise loss and disruption to society. The priorities of the service and use of available resources in all areas require consideration therefore. Additional investment in fire services beyond that already programmed will be challenging and, given the impairment of public and local government finances, resources to support this reform initiative in terms of staff and finance will have to be found by re-directing savings achieved through efficiency measures and re-balancing expenditure to support priorities at local, regional and national level.

It is envisaged that the reform programme will be managed using a standard project management methodology.

Implementation by Fire Authorities

Achieving the successful implementation of the main provisions of this document in all Fire Authorities by the end of 2015 will require commitment and endeavour from fire service and Local Authority Management Teams along with Elected Representatives.

The implications of the Recommendations in this document will vary across fire services. However, it is recommended that a similar approach is adopted by all fire services to this implementation process. The following is set out as an initial indication of high level tasks that should be considered as part of the implementation process;

- The content of this document should be reviewed by each fire service in conjunction with the reports from the Risk Based Approach (RBA) to Emergency Cover circulated to all Fire Authorities in July 2012.

- A list should be drawn up of areas where there is variance between current practice and the recommendations of this document and areas of concern highlighted by the RBA data.

- A presentation should be made to local authority management, supported by a short briefing report, giving an overview of this document and the issues/ implications / concerns arising from it for the local authority.

- The local service management team should agree on yearly Service Development Plans to prioritise and address the implications / concerns highlighted bearing in mind the need for consistent and uniform implementation of policy across all fire services.

- This Service Development/ Action Plan should then be reflected in the form of a new draft Section 26 Plan prepared by fire service management. A standard Section 26 Template is being generated as part of the support documentation for this project. As outlined earlier in this document, the implementation approach adopted above by an individual Fire Service (Draft Section 26 Plan) should be reviewed by the External Validation Group. It may be necessary to review the Draft Section 26 Plan following on from this External Validation Process.

- Following on from the external validation process, the Draft Section 26 Plan should be presented for consideration to the relevant Strategic Policy Committee (SPC) outlining the background and content of this document and the associated proposed changes in fire authority policy as a consequence. Input from the SPC should be reflected in a revised Draft Section 26 Plan. It is envisaged that all Fire Authorities should have a section 26 Plan ready for presentation to the City and County Council before the end of 2013.

- The updated Draft Section 26 Plan should then be presented to a full meeting of the County/ City Council.

- A copy of each adopted Section 26 plan should be sent to the Minster as required by the Fire Services Act. In parallel with the adoption of the Section 26 Plan each Fire Authority / Local Authority will generate an Implementation Plan outlining specific changes etc. that will need to be negotiated / implemented. This plan should include project timescales for the various tasks and the plan should aim towards complete implementation of the recommendations of this document by the end of 2015. It is anticipated that various stages of the implementation process should take place at varying levels as follows;

- A number of changes may be specific to local operational arrangements and can be implemented immediately on the basis of normal local consultation.

- Some changes may impact on specific local Terms and Conditions of Employment of staff and will require local negotiation and resolution with staffing representatives. All such local negotiations should be informed by and be consistent with the provisions of national policy or guidance on the subject.

- A number of changes may impact on National Terms and Conditions of Employment of staff. It is recommended that a list of such issues should be compiled and forwarded to the LGMA for central negotiation and resolution of these issues.

National Level Support and Oversight

The National Directorate for Fire and Emergency Management is the national level body charged with supporting and overseeing fire services in Ireland. The Directorate is a small unit within the Department of Environment, Community and Local Government. It has successfully used a collaborative approach with local authorities to make significant progress in its priority areas over the past few years. This includes the Major Emergency Management field, where a number of local authority officers were seconded to the Department to support and drive what is regarded as the very successful Major Emergency Development Programme 2006 – 2008. A similar system was used in 2010 – 2012 for the development of an extensive suite of Standard Operational Guidance (SOGs) underpinning fire service operations.

The participative approach involving local authorities in both policy formation and supporting implementation measures has been generally recognised as appropriate and significant in terms of success to date. Recognising that there is a need for a significant support for local authorities, it is proposed to use the experience of these previous programmes to support the implementation of KCS. The areas identified where specific support projects are envisaged include:

- Training
- Health and Safety implementation
- Operational Guidance
- Technical Fire Safety
- Community Fire Safety
- Major Emergency Management (further development)

- Human Resources Management
- CAMP/ ICT
- IR

A number of fire service staff (or others with appropriate specialty backgrounds e.g. IT, HR, IR) will be seconded to work on national level projects over the three years 2013 – 2015 to deliver the work required. This involves a potentially significant temporary resource transfer, but given the successful experiences to date with similar projects, it is viewed as both realistic, achievable and an efficient use of resources. The implementation of 'shared services' working arrangements may provide opportunity for temporary re-deployment of staff.

The roles to be undertaken at national level include development, consultation, drafting and introducing new initiatives and approaches described in this document.

It is envisaged that, among the work to be undertaken, the drafting of Good Practice Notes would be assigned to particular local authorities, and the drafts would be converted to national documents by project teams.

Oversight

To discharge its oversight role, the National Directorate will develop tailored survey instruments for use by Fire Services at various stages during the implementation process with regard to progress and request progress reports on the implementation process at various stages. This in turn will link in with the Quality Assurance Process as outlined in Chapter 9 to ensure the ongoing consistent achievement of the objective of "keeping communities safe" from fire and developing consistent, quality and value for money fire services in Ireland.

National Directorate for Fire and Emergency Management

KEEPING COMMUNITIES SAFE – APPENDICES

CONTENTS

APPENDIX A

CATEGORIES OF INCIDENTS AND ASSOCIATED PRE-DETERMINED ATTENDANCES (PDAS)

1.0 Introduction

1.1 Overview

This document sets out a series of standard Categories of Incident Types and the associated Pre-Determined Attendances (PDAs) for these Incident Categories.

Fire Services are mobilised to incidents by Regional Communications Centres (RCCs). These RCCs have lists of various incident types, however, there isn't currently uniformity in the various types of incidents across the RCCs. Section 2 of this document sets out guidance on the various categories that incidents will be classified into, and the PDA associated with that incident type. It is intended that this classification of incident types will apply uniformly across all RCCs.

Guidance is provided in relation to normal crewing arrangements in Section 3.

It should be noted that the guidance herein on PDAs should be taken as the normal PDA and these may be augmented by Incident Commanders depending on the information available to them.

1.2 Terminology

The following section explains the terminology and abbreviations used in this document.

A1 – This abbreviation is used in this document to denote an Alpha 1 fire appliance. An Alpha 1 appliance is the standard Class B Fire Appliance located in all Fire Stations and is the first appliance mobilised to all incidents. It generally carries 1,800 litres of water, has a main pump built in and carries a standard inventory of equipment (detailed in a separate document) including a selection of Hoses, Ladders, Breathing Apparatus Equipment, Hydraulic Cutting Equipment, Chimney Fire Equipment, First Aid Equipment and a variety of smaller gear.

A- This abbreviation is used in this document to denote either an Alpha 1 or an Alpha 2 Class B appliance. An Alpha 2 appliance generally has the same capability as an Alpha 1 appliance but may not be equipped to the same level as an Alpha 1 appliance, particularly with respect to RTA equipment.

B1 – This abbreviation is used to denote a Bravo 1 (Emergency Tender) appliance. Unlike the A1 they do not carry any water on board and do not have any pumping capability. They are equipped with additional and heavier duty Hydraulic and other rescue equipment, and generally also contain equipment for responding to Hazardous Materials Incidents.

E1 – This abbreviation is used to denote an Echo 1 (Aerial) appliance. Echo appliances are located strategically around the country and have an aerial capability, i.e. they can be used as an alternative to normal ladders to rescue casualties from a height or to pour water onto a fire at a height. Some Echo appliances have their own built in main pumps and a small number have an on board supply of water, however, the majority of aerial appliances need to have water pumped to them by an Alpha appliance. The working range varies from one aerial appliance to another; however, they generally have a working range between 20m and 30m.

Categories of Incident Type – This contains a brief description of an incident type, e.g. Automatic Fire Alarm. All Incident Types that Fire Services may be mobilised to have been categorised and set out in Section 2 of this document.

Crewing Arrangements describes the number and type of personnel within a given Fire Station and the arrangements that are in place (e.g. roster) to ensure a normal crew is available for turnout in accordance with the standards set out in "Keeping Communities Safe".

High Hazard Site – a Site, building or facility that is deemed to be a particularly high hazard, and where there is a significant potential threat to life or property should a major incident occur there. Specific high hazard sites (such as SEVESO sites) are closely regulated and significant risk mitigation work (including exercises involving the principal response agencies) is likely to have taken place there. Buildings or sites which are of special interest because of potential hazards may not therefore be high risk, but may merit having a site specific PDA (see below).

Incident – a situation whereby a call for assistance is made to the Fire Services, normally to the Regional Communications Centre through the 999 /112 system. It should be noted that a call for assistance may not necessarily result in a Fire Service resource being mobilised to an incident.

Predetermined Attendances (PDAs) have a number of meanings, but are usually taken as the instructions given by a Chief Fire Officer to the relevant Regional Communications Centre for an initial fire service response to a call for assistance.

These include;

- Incident specific PDAs (e.g. for Domestic Fires, RTCs etc.) setting the numbers and types of appliances to be mobilised to that category of incident – this is the meaning referred to in Section 2 of this document.

- Specific Risk Premises PDAs (such as Institutional buildings, Airports, SEVESO/ industrial, etc.) listing the number and sequence of appliances for initial dispatch to the specific building.

All PDAs may be varied by the Incident Commander in light of information available/ circumstances

RSFO – a Rostered Senior Fire Officer is a Senior Fire Officer from the fire service who is available through a call-out arrangement. There is at least one Senior Fire Officer on call in all Fire Services at any given time.

VMS – This is an abbreviation for a Variable Message Sign. Variable Message Signs are digital LED signs that can have messages programmed into them, e.g. ACCIDENT AHEAD. They are generally used for Road based Incidents to alert motorists of oncoming hazards. The VMS signs are usually located on the roof of 4 Wheel Drive vehicles – they fold down when not in use – or fitted on the rear of larger appliances such as Water Tankers or Bravo appliances.

2.0 Categories of Calls-Outs & Associated PDAs

This section sets out the nationally recommended Categories of Incident Types and the Pre-Determined Attendances (PDAs) associated with those incident types. Please refer to Section 1 for an explanation of the abbreviations in this Section.

Incident Type	PDA	Category
Aircraft (4 persons or less)		
• Emergency Standby	1 A1	Primary
• Incident	1 A1 + 1 A- or 1 A1 + 1 B1	Primary
Aircraft (5 persons or more)		
• Emergency Standby	1 A1 + 1 A- or 1 A1 + 1 B1	Primary
• Incident	2 A1 + 1 A- + 1 B1 + 1 E1	Primary
Ambulance Assist	0	N/A
Animal Rescue	Advise ISPCA, Gardai	N/A
Automatic Fire Alarm	1 A1	Tertiary
Bicycle Lock	Advise to contact a Locksmith	N/A
Boat Incident other than Fire, with Persons Reported		
• Not Docked	Advise IRCG	N/A
• Docked	1A1	Primary
Body Recovery from Water (e.g. River / Lake)	Advise Gardai & Coastguard	N/A
Body Recovery other than from Water	Inform RSFO	Depends on Incident
Bomb Alert	Advise Gardai	N/A
Building Collapse		
• No Persons Reported	LA Policy / Inform RSFO if no LA Policy	Secondary (If attending)
• Persons Reported	1 A1 + 1 A- or 1 A1 + 1 B1	Primary
Burglar Alarm	Advise Gardai	N/A
Cave Rescue	Advise Gardai	N/A
Civil Disturbance	Advise Gardai	N/A

Incident Type	PDA	Category
Confined Space Rescue	L.A. Policy (to be determined as part of a Needs Assessment with neighbouring Fire Authorities) / Inform RSFO	Primary (if attending)
Dangerous Building Report	LA Policy / Inform RSFO if no LA Policy	Primary (If attending)
Electrical Incident • Wires Down • Electrocution	 1 A– 1 A–	 Primary Primary
Explosion	1 A1 + 1 A– or 1 A1 + 1 B1	Primary
Explosives / Suspect Devices or Cylinders – request to attend on standby in the event of a fire	Advise Gardai	N/A
Fire – Boat • Not Moored • Moored	 Advise Coastguard 1 A–	 N/A Primary
Fire – Bog / Gorse / Forestry	1 A–	Secondary
Fire – Caravan	1 A–	Primary
Fire – Chimney	1 A–	Tertiary
Fire – Haybarn & Farm	1 A–	Secondary
Fire – House / Apartment (including smoke from building and report of warm walls) • No Persons Reported • Persons Reported	 1 A1 + 1 A– 1 A1 + 1 A–	 Primary Primary
Fire – Industrial / Institutional / Harbour / Tunnel & Underground Structure / Explosive Store / Prison & Secure Accommodation / Multi-Residential Building (e.g. Hospital, Nursing Home, Hotel, Hostel) / **High Rise Building / Underground Car Park / Multi-Storey Car Park / Public Assembly Building** (e.g. Shopping Centre) / **Vacant Building / Sandwich Panel Building / Basements** • No Persons Reported • Persons Reported	 1 A1 + 1 A– 2 A1 + 1 A– or 2 A1 + 1 E1 *Note: High Hazard Sites normally have a specific PDA*	 Primary Primary

Incident Type	PDA	Category
Fire – Outdoor • Bonfire • Fence • Hedge • Grass • Tree • Rubbish / Refuse • Skip • Rural • Tiphead	1A–	Tertiary
Fire – Oil/ Petrol • Outdoor • Service Station	1A– 1A1 + 1A–	Secondary Primary
Fire – Ship • Not Docked • Docked	Advise IRCG 1 A1 + 1A–	N/A Primary
Fire – Vehicle • Motorcycle • Car	1 A– 1 A–	Tertiary Tertiary
Fire – Vehicle • Truck / Lorry • Bus / Coach • Dangerous Goods Vehicle	1 A1 + 1A– 1 A1 + 1A– 1 A1 + 1 A– or 1 A1 + 1 B1	Secondary Secondary Primary
Flooding • No Life at Risk • Life at Risk	LA Policy / Inform RSFO if no LA Policy 1 A–	Secondary (if attending) Primary
Gardai Request for Attendance (even if the incident type has a 0 PDA)	1 A– (can be augmented by the Incident Commander depending on the nature of the request)	Depends on Incident
Gas (including cylinders and Bulk Tanks) • Smell • Leak	1 A– 1 A1 + 1 A– or 1 A1 + 1 B1	Secondary Primary

Incident Type	PDA	Category
Hazardous Material Incident, including Acetylene • No Persons Reported • Persons Reported	 1 A1 + 1 A– or 1 A1 + 1 B1 2 A1 + 1 A– or 2 A1 + 1 B1 Note: If Chemical Protective Clothing (CPC) suits are required to be worn, these may not be available on the first attending appliances / stations	 Secondary Primary
Height Rescue	L.A. Policy / Inform RSFO	Primary (if attending)
Highline Rescue	L.A. Policy (to be determined as part of a Needs Assessment with neighbouring Fire Authorities) / Inform RSFO	Primary (if attending)
Ice & Unstable Ground (Rescue)	1 A–	Primary
Lift – Person(s) Stuck	LA Policy / Inform RSFO if no LA Policy	Secondary (if attending)
Lock In • No Life at Risk • Life at Risk	 Advise Contact a Locksmith or Gardai 1 A–	 N/A Primary
Lock Out • No Life at Risk • Life at Risk	 Advise Contact a Locksmith or Gardai 1 A–	 N/A Primary
Medical Emergencies (other than Dublin Fire Services)	Advise Ambulance Service	N/A
Miscellaneous (Incident Type other than those listed)	Inform RSFO	Depends on Incident
Missing Person	Advise Gardai	N/A
Mountain Rescue	Advise Gardai & Coastguard	N/A
Pollution and Environmental	Inform RSFO	Depends on Incident
Radiation Hazard	1 A1 + 1 A– or 1 A1 + 1 B1	Primary

Incident Type	PDA	Category
Mainline Railway Incident • No Persons Injured or Dangerous Substance • Persons Injured or Dangerous Substance	 1A1 1 A1 + 1 A– or 1 A1 + 1 B1	 Secondary (if attending) Primary
Light Rail/ Tram Incident • No Persons Injured • Persons Injured	 1A 1 A1 + 1 A– or 1 A1 + 1 B1	 Secondary Primary
Rescue General Persons Reported	1 A1	Primary
River & Other Water Rescue	LA Policy / Inform RSFO if no LA Policy	Primary (if attending)
Road Hazard (e.g. Trees Down, Debris, Oil or other substance on the Road, Flooding)	LA Policy / Inform RSFO if no LA Policy	Secondary (if attending)
Road Traffic Collision (RTC) – No Persons Reported	LA Policy / Inform RSFO if no LA Policy	Secondary (if attending)
Road Traffic Collision (RTC) – Persons Reported • Single Carriageway • Dual Carriageway or Motorway	 1 A1 + 1 A– or 1 A1 + 1 B1 1 A1 + 1 A– + 1 VMS or 1 A1 + 1 B + 1 VMS	 Primary Primary
Sewer / Trench Collapse • No Persons Reported • Persons Reported	 0 1 A1 + 1 A– or 1 A1 + 1 B1	 N/A Primary
Water Provision Request	LA Policy / Inform RSFO if no LA Policy	Tertiary

Notes:

1. All PDAs listed above are normal attendance levels but may be augmented by local arrangements / decisions of incident commanders in light of information available

2. For any Incident Type where the RSFO is informed and requested to make a decision on mobilisation, the PDA would normally be 1A– unless a different PDA is requested by the RSFO

3.0 Crewing on Appliances

All Alpha 1 appliances mobilised to an incident should have a normal crew compliment of 5 personnel to include a designated Incident Commander.

All subsequent Alpha appliances mobilised from a multi-pump station should have a normal crew compliment of 4 personnel to include a designated Crew Commander.

In the event of appliances mobilising to a primary or secondary category incident (i.e. all other than tertiary incidents) in accordance with the normal PDA in the above tables and where there is not the normal crew compliments detailed above, the next resource on the PDA should also be mobilised.

All special and support appliances (other than 4 WD's) mobilised to an incident should have a normal crew compliment of 2 personnel.

APPENDIX B

NATIONAL STANDARDS AND SPECIFICATIONS

1. Introduction

Part of the mandate of the National Directorate for Fire and Emergency Management is to achieve an appropriate level of consistency across all aspects of service provision by individual fire services. One of the key mechanisms for achieving this objective is for the National Directorate to set national standards/ specifications and guidance as appropriate covering a wide range of subjects.

This Appendix sets out a list of current standards, specifications and guidance documents issued by the National Directorate and currently in use by fire services in Ireland.

This list will be updated periodically and circulated to all fire authorities and placed on the Department's Website.

2. Fire Safety Standards and Guidance Documents

2.1 Design of New Buildings

- Technical Guidance Document B (2006)

2.2 Safety in Existing Buildings

- Fire Safety in Nursing Homes
- Fire Safety in Pre-Schools (1999)
- Fire Safety in Guest Accommodation
- Fire Safety in Hostels
- Code of Practice for the Management of Fire Safety in Places of Public Assembly (1991)
- Code of Practice for Safety at Indoor Concerts

3. Fire Appliance and Equipment Specifications

3.1 Fire Appliance Standards

- International Standards, EN 1846
- Department of Environment, Community and Local Government "Common Specification for Fire Appliances" (2011)

4. Personal Protective Clothing and Equipment (PPE) Standards

Fire gear

- BS EN 469:2005 – Protective clothing for firefighters.

Hi-visibility clothing

- BS EN 471:2003 – High-visibility warning clothing for professional use.

Head Protection

- BS EN 443:1997

Helmets for fire-fighters

- BS EN 14458:2004

Personal eye-equipment. Face shields and visors for use with fire-fighters and high performance industrial safety helmets used by fire-fighters, ambulance and emergency services.

- BS EN 397:1995 – Specification for Industrial safety helmets.
- BS EN 149:2001 or equivalent – Respiratory Protective Equipment (R.P.E.) dust/mist respirator Type FFP2 or FFP3 c/w valve.

Footwear

- BS EN 345-2:1997 – Safety footwear for professional use. Additional specifications (to be replaced by BS EN 15090:2006 – Footwear for fire-fighters).

Chemical Protective Clothing

- BS EN 943 (chemical protective suits)
- BS EN 146 (visors)
- BS EN 464 (testing)
- BS EN 8467:2006 (CCBRN Clothing)

Protective Clothing for use with Chainsaws

- BS EN 397 (safety helmet for use at ground level)
- BS EN 12497 (safety helmet for use while climbing trees)
- BS EN 352-1 (hearing protection)
- BS EN 1731 (Mesh visor)
- BS EN 166 (safety glasses)
- BS EN 381-7 (gloves)
- BS EN 381-5 (leg and groin protection)
- BS EN ISO 20345:2004 (chainsaw boots) also BS EN 381-3
- BS EN 381-9 (gaiters)

5. Operational Guidance

- Firefighter Handbook – Fire Services Council (2001)
- Junior Officer Handbook – Fire Services Council (2001)
- Senior Officer Handbook – Fire Services Council (2001)
- National Incident Command System – DoEHLG (2007)
- Fire Service Ancillary Safety Statement Template – DoEHLG (2007)
- The Use of Breathing Apparatus in the Fire Service – DoEHLG (2007)
- Road Traffic Accident Handbook (2009)
- Guidance on the Provision and Assessment of BA Training (2010)
- Guidance for Compartment Fire Behaviour Training (2010)
- Guidance on Emergency Traffic Management (ETM) by the Fire Service at Road-based Incidents (2011)
- Standard Operating Guidance (SOGs) (2010 – 2012)

Standard Operational Guidance

- 1.01 Responding to an Incident – Turning out
- 1.02 Proceeding to an incident
- 1.03 Arriving and getting to work
- 1.04 Driving Emergency Service Vehicles
- 2.01 Rescues from Ice/Unstable Ground
- 2.02 Rescues from lifts and escalators
- 2.08 Rescues and attendance at Flooding
- 2.10 Rescues from Water (excluding “swiftwater”)
- 3.01 Fighting fires in buildings
- 3.02 Fighting fires in high-rise buildings
- 3.03 Fighting fires in chimneys
- 3.04 Fighting fires in rural areas
- 3.05 Fighting fires in farms
- 3.06 Fighting fires in refuse
- 3.07 Fighting fires in places of public assembly
- 3.08 Fighting fires in prisons / secure accommodation
- 3.09 Fighting fires in underground car parks
- 3.10 Fighting fires in multi-storey car parks
- 3.11 Fighting fires in cars
- 3.12 Fighting fires in buses / lorries
- 3.13 Fighting fires in Vacant Buildings
- 3.14 Fighting fires in sandwich panel buildings
- 3.15 Fighting Fires in Basements
- 4.01 Road Traffic Collisions (RTCs)
- 4.02 Road incidents other than RTCs
- 4.03 Railway incidents
- 4.05 Boating Incidents

- 5.01 Electricity incidents
- 5.02 Acetylene incidents – (see also 7.02)
- 5.06 Civil disturbance at incidents
- 5.08 Flashover / Backdraught / Fire Gas Ignition
- 5.10 Natural Gas Incidents – (see also 7.02)
- 5.11 Asbestos incidents – (see also 7.09)
- 5.12 Tunnels and Underground Structure incidents
- 5.15 Incidents involving LPG Cylinders & Bulk Tanks– (see also 7.02)
- 5.16 Working at or near Water
- 6.04 Pollution / Environmental Incidents – (see also 7.09)
- 7.00 Hazmat Incidents
- 7.01 Incidents involving Explosives
- 7.02 Incidents involving Gas
- 7.03 Incidents involving Flammable Liquids
- 7.04 Incidents involving Flammable Solids
- 7.05 Incidents involving Oxidising Substances & Organic Peroxides
- 7.06 Toxic and Infectious Substances
- 7.07 Incidents involving Ionising Radiation
- 7.08 Incidents involving Corrosive Substances
- 7.09 Miscellaneous Hazmats

Total 47

APPENDIX C

GUIDANCE ON AREA RISK CATEGORISATION

Area Risk Categorisation

The 'Keeping Communities Safe' document requires each fire service to undertake an initial risk categorisation process for its functional area and to prepare a short report on the process and outcomes before end of Quarter 2, 2013. This is seen as a first step is setting standards for fire services and will result in each station ground being assigned a Risk Category Grading. The fire risk categories range across five grades, from Very High, High, Medium, Low to Very Low Risk.

The Risk Category to be assigned to a fire station ground should be judged on considering the following criteria;

- Population of main urban area
- Population Density(s) of the area (per Km2) surrounding main urban area
- Total Population of the Station Ground
- Annual Service Demand Level (Based on Number of Incidents occurring in the station area averaged over three years)
- No. of Dwellings in the station ground & the Annual Dwelling Fire Rate
- Other building fire rates
- % tertiary incidents
- RTA activity/ (non cleanup) & Special Services rates
- Extent of Individual Special Hazards (e.g. Institutional, Educational, Industrial, Large Scale Retail / Commercial, SEVESO, POPA etc.)

The approach to undertaking the Area Risk Categorisation Process is set out hereunder. This uses tabular formats as shown below and relies on census data, the use of local knowledge and operational intelligence. Risk Based Approach Reports, the Major Emergency Management Risk Assessment and other readily available sources within the local government system (e.g. zonings for planning purposes) will provide an adequate picture to determine risk categorisation, with associated area risk designations within each fire station ground. It is the predominant risk in an area that should define its risk categorisation. A number of commercial or industrial buildings in an area predominated by domestic risk would not change a risk categorisation from that associated with the domestic risk.

In applying the risk categorisation system, while it is envisaged that in most cases, a fire station area will fit a single category, situations will arise where an area may be indicated as crossing a number of risk categories set out in Table 7.2. Such situations may become apparent where information about an area appears to place it in two adjacent categories. The categorisations should be seen as indicators rather than abosolute determination in themselves, and this approach is intended as an aid to the judgement of those managing the service.

In some cases (e.g. with extensive or widely varying station grounds) it may be appropriate to sub-divide the station ground and have a number of sub-areas of different designations within the same category or even to have different categories. The initial Risk Categorisation may be refined as more information becomes available over time. Also, in dense urban areas where there appears to be different categorisations within a station ground, it may be necessary to consider grids or geographic areas and look at the scale, density, height and other building characteristics that predominate in that area before deciding on a risk categorisation or area risk designation. It is not seen as necessary or appropriate to undertake a building by building appraisal for the purposes of area risk categorisation.

At the other end of the scale, anomalies may be seen to occur where the number of incidents in a particular category is very small, and care needs to be exercised when calculating fire rates. Such anomalies will be easily recognisable in general and should be discounted.

Risk Category	Population			Demand/ Need		Incident Rates			Individual / Special Hazards	Area Risk Designa-tion
	Pop of main Urban centre	Rural Pop density (Persons/ sq km)	Total Pop in Station Area	No of Dwellings in Station Area	Annual Level of Incidents in Station Area	Dwelling Fire Rates/ 100 k of pop	Other Building Rates/ 100 k of pop	RTA/ SS rate/ 100k of pop	Infrastructure Institutional, Recreation, POPA, Educational, Industrial, SEVESO, Shopping/ Commercial	
Very High	>100k	>200	>150	> 50k	> 2500	>250	>100	>250	Multiples of above on largest scale	A1
	70 100	>200	90 – 150k	30 – 50k	1200 – 2500	200 – 250	70 –100	200 – 250	Some of the above	A2
High	35 – 75k	>200	70 –100k	20 – 40k	700 – 1500	150 – 200	50 – 70	170 – 200	Small number of each of the above, on limited scale	B1
	30 –40k		40 – 80k	15 – 30k	500 – 800	120 – 150	30 –50	140 – 170	Some of the above on a limited scale	B2
Medium	10 –30k		25 –40k	10 –15k	250–700	100–120	20–30	120–140	A number of each of the above, of medium scale	C1
	5–12k	50–250	20–30k	7–12k	120–300	80–100	15–25	110–130	A small number of above, of limited scale	C2
Low	3–5k	30–100	10–25k	3–10k	100–130	70–90	10–20	100–120	Some small scale premises in above categories	D1
	1.5–3k	20–50	6–12.5k	2–5k	50–120	60–80	5–15	80–100	A few small scale premises in above categories	D2
Very Low	<2k	<20	<7.5	<4k	<70	50–70	N/A	<80	Very few premises other than domestic	E1
	<1k	<20	<5k	<2k	<50	<50	N/A	<80	Remote Rural	E2

Designations should also take account of the extent of history/ impact of fire prevention work – both community fire safety for domestic and statutory fire prevention work (Fire Safety Certs and enforcement). The Area Deprivation Indices should also be consulted, as these are likely also to be a moderator of the domestic fire risk.

It is expected that the buildings in the Individual/ Specific hazard column will be readily known for every station ground. As noted above the history/ impact of fire prevention work should be considered in assessing the grading to be assigned under this column. Sites such as SEVESO sites are closely regulated and significant risk mitigation work (including exercises involving the principal response agencies) is likely to have taken place. Buildings or sites which are of special interest because of their scale and importance to a community or region may not therefore be high risk, and the presence alone in an area of such facilities would not necessarily raise an area to high risk or very high risk.

A template for the application of the risk categorisation process is given below, together with some worked illustrations of the process.

TEMPLATE FOR APPLICATION OF KCS AREA RISK CATEGORISATION

FIRE AUTHORITY: .....

FIRE STATION: .....

	Pop Town	Pop Density	Pop Total	3yr incidents avg	No of dwellings	Dwellings fire rate	RTAs	Incidents per 100k pop	Rate of tertiary fires per 100 k	Specific Risk Buildings	Stat Fire Safety	CFS	Depriva-tion Index
Nat Avgs						99/ 100k	120/ 100k	1283/ 100k	640/ 100k				
Fire Auth Avgs													
Station Area Charac-teristics													
Risk grading indicator													

Current Appliances: Crew type: Crew Numbers:

Nearest Support1 + ETA: Nearest Support 2 + ETA: Configuration of support

Comments:

Recommendation

APPLICATION OF KCS AREA RISK CATEGORISATION GUIDANCE

FIRE AUTHORITY: .....XX.....

FIRE STATION: .....XX1.....

	Pop Town	Pop Density	Pop Total	3yr incidents avg	No of dwellings	Dw fire rate	RTAs	Incidents per 100k pop	Rate of tertiary fires per 100 k	Specific Risk Buildings	Stat Fire Safety	CFS	Depriva-tion Index
Nat Avgs						99/ 100k	120/ 100k	1283/ 100k	640/ 100k				
Fire Auth Avgs													
Station Area Charac-teristics	31k	<200 pks	40	370k	15k	10 over 3 years				Hospital, Industry, Tourist	Good degree		Slightly above
Risk grading indicator	B2		C1	C1	C1					C1			

Current Appliances: 2 Class B + Special Crew type: Retained Crew Numbers: 14

Nearest Support1 + ETA: XX3 (10 miles @ 16 mins) Nearest Support 2 + ETA: XX7 (14 miles @ 19 mins)
Configuration of support: Diamond shape

Comments: This area fits with the parameters of a C1 categorisation or Medium risk

Recommendation: The current service is appropriate for this area (crew should be increased to 15 with rostering)

APPENDIX D

BACKGROUND/REFERENCE DOCUMENTS

Scottish Government (2010) – *Scotland Together – A Study examining fire deaths and injuries in Scotland Edinburgh, Scottish Government*

UK Dept of Communities and Local Government (2009) *Review of Fire and Rescue Services Response Times London, HMSO*

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APPENDIX E

DEFINITIONS, TERMINOLOGY AND ABBREVIATIONS

This Appendix contains definitions, terminology and abbreviations which are specific to fire service issues in Ireland. In general, the terminology is explained in the main Keeping Communities Safe text at points close to where it is used. A Table of Abbreviations used is provided hereunder. The following phrases are used throughout the document:

"Fire brigade" has the meaning assigned to it by Section 2 of the Fire Services Act, 1981 and 2003 and is ' an organised body of persons trained and equipped for extinguishing fires occurring in buildings and other places and for rescuing persons and property from such fires, and includes the vehicles and equipment with which that body is provided'. It is generally taken to refer to specific location as in 'Portumna Fire Brigade'

"Fire authority" means a local authority designated by Section 9 of the Fire Services Act, 1981 and 2003 to be a fire authority for the purposes of the Act. 37 Local authorities are designated as fire authorities by the legislation.

"Fire services" means an organisational unit designated as providing services for and on behalf of more than one fire authority such as 'Galway Fire Services' whereby fire services are provided by Galway County Council on its own behalf and for Galway City which is also a fire authority.

"Retained Fire Service" means a fire brigade which is crewed by staff who respond to an alert signal, travel to their local fire station and mobilise to an incident. Retained staff are part-time employees of the fire authority.

A1 – This abbreviation is used in this document to denote an Alpha 1 fire appliance. An Alpha 1 appliance is the standard Class B Fire Appliance located in all Fire Stations and is the first appliance mobilised to all incidents. It generally carries 1,800 litres of water, has a main pump built in and carries a standard inventory of equipment (detailed in a separate document) including a selection of Hoses, Ladders, Breathing Apparatus Equipment, Hydraulic Cutting Equipment, Chimney Fire Equipment, First Aid Equipment and a variety of smaller gear.

A- This abbreviation is used this document to denote either an Alpha 1 or an Alpha 2 Class B appliance. An Alpha 2 appliance generally has the same capability as an Alpha 1 appliance but may not be equipped to the same level as an Alpha 1 appliance, particularly with respect to RTA equipment.

B1 – This abbreviation is used to denote a Bravo 1 (Emergency Tender) appliance. Unlike the A1 they do not carry any water on board and do not have any pumping capability. They are equipped with additional and heavier duty Hydraulic and other rescue equipment, and generally also contain equipment for responding to Hazardous Materials Incidents.

E1 – This abbreviation is used to denote an Echo 1 (Aerial) appliance. Echo appliances are located strategically around the country and have an aerial capability, i.e. they can be used as an alternative to normal ladders to rescue casualties from a height or to pour water onto a fire at a height. Some Echo appliances have their own built in main pumps and a small number have an on board supply of water, however, the majority of aerials appliances need to have water pumped to them by an Alpha appliance. The working range and the weight lifting capability varies from one aerial appliance to another, however, they general have a working range between 20m and 30m.

Categories of Incident Type – This contains a brief description of an incident type, e.g. Automatic Fire Alarm. All Incident Types that Fire Services may be mobilised to have been categorised and set out in Section 2 of this document.

Crewing Arrangements describes the number and type of personnel within a given Fire Station and the arrangements that are in place (e.g. roster) to ensure a normal crew is available for turnout in accordance with the standards set out in “Keeping Communities Safe”.

High Hazard Site – a Site, building or facility that is deemed to be a particularly high hazard, and where there is a significant potential threat to life or property should a major incident occur there. Specific high hazard sites (such as SEVESO sites) are closely regulated and significant risk mitigation work (including exercises involving the principal response agencies) is likely to have taken place there. Buildings or sites which are of special interest because of potential hazards may not therefore be high risk, but may merit having a site specific PDA (see below).

Incident – a situation whereby a call for assistance is made to the Fire Services, normally to the Regional Communications Centre through the 999 /112 system. It should be noted that a call for assistance may not necessarily result in a Fire Service resource being mobilised to an incident.

Predetermined Attendances (PDAs) have a number of meanings, but are usually taken as the instructions given by a Chief Fire Officer to the relevant Regional Communications Centre for an initial fire service response to a call for assistance. These include;

- Incident specific PDAs (e.g. for Domestic Fires, RTCs etc.) setting the numbers and types of appliances to be mobilised to that category of incident – this is the meaning referred to in Section 2 of this document.
- Specific Risk Premises PDAs (such as Institutional buildings, Airports, SEVESO/ industrial etc) listing the number and sequence of appliances for initial dispatch to the specific building

All PDAs may be varied by the Incident Commander in light of information available/ circumstances

RSFO – a Rostered Senior Fire Officer is a Senior Fire Officer from the fire service that is available through a call-out arrangement. There is at least one Senior Fire Officer on call in all Fire Services at any given time.

VMS – This is an abbreviation for a Variable Message Sign. Variable Message Signs are digital LED signs that can have messages programmed into them, e.g. ACCIDENT AHEAD. They are generally used for Road based Incidents to alert motorists of oncoming hazards. The VMS signs are usually located on the roof of 4 Wheel Drive vehicles (they fold down when not in use) or are located on the rear of larger appliances such as Water Tankers or Bravo appliances.

Language used in relation to risk management.

- **"Hazard"** is danger arising in a particular situation (can be a hazardous event or material)
- **"Probability"** is the likelihood of that hazardous event occurring (based on statistical information usually)
- **"Consequence"** is what happens as a result of a hazardous event occurring
- **"Vulnerability"** is the inherent threat posed to individuals and communities by the hazardous event
- **"Risk"** is defined as the product of a hazard x the probability it will occur

- **"Risk Management"** is the five-stage systemic process utilised to identify, assess, mitigate, plan for, respond to and review hazardous situations. This approach is internationally recognised and has many applications.

- **"Risk Assessment"** is one stage of the risk management process. Under Section 19 of the Safety, Health and Welfare at Work legislation, this phrase has a particular meaning, and requires employers to carry out risk assessments of their work activities. Guidance on relevant aspects of risk assessment for fire services and meeting this legislative requirement are provided in the Fire Services Ancillary Safety Statement (generic risk assessments), in the Fire Service National Incident Command System (dynamic risk assessments) and Fire Service Standard Operational Guidance (SOGs) (specific situational risk assessments).

- **"Risk Matrix"** is a tool to present information on a risk assessment process, as illustrated in Figure 2.2 below, where likelihood (probability) varies from extremely unlikely to very likely and impact (consequence) varies from minor to catastrophic.

Abbreviations Used in Keeping Communities Safe

AGS	An Garda Síochána	**MEM**	Major Emergency Management
CAMP	Computer-Aided Mobilisation Project	**NAS**	National Ambulance Service
CFO	Chief Fire Officer	**NDFEM**	National Directorate for Fire Emergency Management
CFS	Community Fire Safety	**NGO**	Non-Government Organisations
CSO	Central Statistics Office	**NICS**	National Incident Command System
DECLG	Department of the Environment, Community & Local Government	**PDA**	Pre-Determined Attendance
DFB	Dublin Fire Brigade	**POPA**	Places of Public Assembly
DJLR	Department of Justice, & Law Reform	**RBA**	Risk Based Approach
ECAS	Emergency Call Answering Services	**RCC**	Regional Communications Centres
EOD	Explosives Ordnance Division	**RNLI**	Royal National Lifeboat Institute
FETAC	Further Education and Training Awards Council	**RSFO**	Rostered Senior Fire Officer
GIS	Geographic Information Systems	**RTA**	Road Traffic Accident
GPN	Good Practice Notes	**SAR**	Search and Rescue
HSA	Health Safety Authority	**SHW**	Safety, Health & Welfare (at Work) Act, 2005
HSE	Health Service Executive	**SPC**	Strategic Policy Committee
IRCG	Irish Coast Guard	**SOG**	Standard Operational Guidance
KCS	Keeping Communities Safe	**TETRA**	Terrestrial Trunked (Digital) Radio
LGMA	Local Government Management Agency	**VMS**	Variable Message Sign

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