Section

Operations

Developed and maintained by the NFCC
Contents

Corporate guidance for operational activity ................................................................. 6

Hazard - Corporate guidance for operational activity ............................................ 6

Control measure - Legislative responsibilities ......................................................... 7
Control measure - Data and information management ............................................. 10
Control measure - Risk management .................................................................... 15
Control measure - Health and safety management ................................................ 21
Control measure - Site-Specific Risk Information .................................................. 26
Control measure - Emergency response plans ....................................................... 31
Control measure - Operational audits ..................................................................... 35
Control measure - Competence and training .......................................................... 38
Control measure - Operational learning ................................................................. 42
Control measure - Legal proceedings ..................................................................... 45

Operations guidance ............................................................................................... 47

Risk management plan ......................................................................................... 48
Responsibility of fire and rescue services ............................................................. 49

Hazard - Failing to effectively exchange information with other agencies ............ 49

Control measure - Communication to support intraoperability and interoperability .... 49

Hazard - Fire control room equipment failure ......................................................... 51

Control measure - Use incident typing ................................................................. 51
Control measure - Provide resilient fire control room equipment ......................... 53
Control measure - Provide multiple communications bearers ............................ 57
Control measure - Provide support for fire control room systems ....................... 58
Control measure - Provide a critical contact number .......................................... 59
Control measure - Establish an alternative fire control facility ......................... 60

Hazard - Inability to store and retrieve call and incident data ............................... 62

Control measure - Capture call and incident data ............................................... 63
Control measure - Follow the standard message process .................................... 64

Hazard - Delayed or inaccurate mobilising of resources ........................................ 66

Control measure - Effective handling of emergency calls ..................................... 69
Control measure - Emergency call management .................................................. 71
Control measure - Use technology to locate the caller and the incident ............... 73
Control measure - Use technology to mobilise fire and rescue service resources .... 74
Control measure - Use a premises based gazetteer ........................................... 77
Control measure - Hold contact information for specialist resources and specialist advice ................................................................. 79
Hazard - Calls from or about persons at risk ................................................................. 80
   Control measure - Provide survival guidance ............................................................ 80
Hazard - Physical and mental effects on personnel alerted to respond to an incident ...... 83
   Control measure - Monitor the well being of personnel ........................................ 84
   Control measure - Safe system of work: Being alerted to respond to an incident .... 85
Hazard - Driving to incidents ...................................................................................... 87
   Control measure - Comply with road safety regulations ........................................ 89
   Control measure - Work-related road safety .......................................................... 91
   Control measure - Provide and maintain appropriate vehicles .................................. 92
   Control measure - Use local knowledge ................................................................. 94
   Control measure - Use effective navigation ............................................................ 95
   Control measure - Consider using closed-circuit television (CCTV) ......................... 97
   Control measure - Make a safe and controlled approach to the incident ..................... 98
   Control measure - Position fire and rescue service vehicles safely ......................... 100
   Control measure - Maintain safe access, egress and escape routes for fire and rescue service vehicles ........................................................................................................ 101
Hazard - Unable to gain access or entry .................................................................... 103
   Control measure - Gain access or entry ............................................................... 104
Hazard - Failing to manage health, safety and welfare ................................................. 107
   Control measure - Undertake pre-planning ............................................................ 109
   Control measure - Engineering controls ............................................................... 111
   Control measure - Consider training and competence ............................................. 112
   Control measure - Assess risk from lone working ............................................... 114
   Control measure - Establish safe systems of work ............................................... 115
   Control measure - Hierarchy of control ............................................................... 117
   Control measure - Personal protective equipment .................................................. 118
   Control measure - Respiratory protective equipment .............................................. 120
   Control measure - Welfare ................................................................................... 123
   Control measure - Post incident health surveillance .............................................. 124
Hazard - Working near water or other liquids ............................................................ 126
   Control measure - Assess the risk of working near water or other liquids ................ 127
   Control measure - Manage the risk of working near water or other liquids .............. 129
Hazard - Physiological stress ..................................................................................... 130
   Control measure - Reduce exposure .................................................................... 131
   Control measure - Task rotation .......................................................................... 131
Hazard - Heat illness in personnel ............................................................................. 132
   Control measure - Prevent and manage heat illness in personnel ............................. 134
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Control measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothermia in personnel</td>
<td>Prevent and manage hypothermia in personnel</td>
</tr>
<tr>
<td>Weather conditions</td>
<td>Assess current and forecast weather conditions</td>
</tr>
<tr>
<td>Lightning</td>
<td>Safe system of work: Lightning</td>
</tr>
<tr>
<td>Noise</td>
<td>Reduce exposure to noise</td>
</tr>
<tr>
<td></td>
<td>Isolate the source of noise</td>
</tr>
<tr>
<td></td>
<td>Safe system of work: Noisy environments</td>
</tr>
<tr>
<td>Vibration</td>
<td>Reduce risk from exposure to vibration</td>
</tr>
<tr>
<td></td>
<td>Minimise the impact of vibration from vehicles or machinery</td>
</tr>
<tr>
<td>Manual handling</td>
<td>Adopt correct manual handling techniques</td>
</tr>
<tr>
<td>Physical injuries from animals</td>
<td>Avoid, contain or control animals</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>Monitor personnel exposed to diseases and infections</td>
</tr>
<tr>
<td></td>
<td>Manage the risk from infectious diseases</td>
</tr>
<tr>
<td>Psychological hazards</td>
<td>Manage risk from psychological hazards</td>
</tr>
<tr>
<td>People</td>
<td>Evacuation and shelter</td>
</tr>
<tr>
<td></td>
<td>Secure equipment and vehicles</td>
</tr>
<tr>
<td></td>
<td>Withdrawal from public disorder</td>
</tr>
<tr>
<td></td>
<td>Avoid confrontation</td>
</tr>
<tr>
<td>Failing to make resources</td>
<td>Communicate the availability of resources</td>
</tr>
<tr>
<td></td>
<td>Manage, inspect and test equipment</td>
</tr>
<tr>
<td></td>
<td>Scene security</td>
</tr>
</tbody>
</table>
Control measure - Preserve evidence and support investigation ........................................ 180
Control measure - Consider using closed-circuit television (CCTV) ........................................ 182
Control measure - Investigation ........................................................................................................ 184
Control measure - Accurate records and statements ................................................................. 186
Control measure - Incident Handover .............................................................................................. 187
Control measure - Written reports .................................................................................................. 190
Control measure - Attendance at coroner's court (or equivalent) ................................................ 192
Control measure - Highlight trends ................................................................................................. 194
Control measure - Operational learning ......................................................................................... 195
Introduction

This strategic-level corporate guidance aims to assist fire and rescue authorities in providing an operational response while taking into account:

- Legislative responsibilities
- Data management
- Risk management
- Health and safety management
- Site-Specific Risk Information
- Emergency response plans
- Operational assurance
- Competence and training
- Operational learning
- Legal proceedings

As many of these topics have interdependencies, it is suggested that the publication be considered in its entirety. Each topic is accompanied by a list of suggested corporate actions.

This corporate guidance is not intended to prescribe the approach that individual fire and rescue authorities adopt. Its main aim is to support the implementation of National Operational Guidance by fire and rescue services.

Hazard - Corporate guidance for operational activity

Hazard Knowledge

National Operational Guidance

National Operational Guidance uses strategic actions to assist services in identifying actions that will help them meet their legislative requirements and record them using the Strategic Gap Analysis tool.
The guidance aims to provide its users with a clear understanding of what must be done, their absolute duties, what should be done and what may be done. It uses lead sentences such as ‘Fire and rescue services must’ and ‘Fire and rescue services should’.

The following definitions have been applied to the National Operational Guidance, including this corporate guidance.

‘Must’ – actions that are required by legislation. For example:

Every fire and rescue service must assess the hazards and risks in their area, with site-specific risk plans established for locations where hazards and risks are significant.

‘Should’ – actions that are recommended. If policies or procedures follow a different action, or do not include the recommended action, they are likely to attract criticism; this could be at managerial level or in a review process such as an inquest. For example:

So that fire and rescue service personnel can operate safely and effectively at incidents involving fires in waste sites, they should develop an appropriate understanding of site design and layout, the type of materials being stored and the method of storage.

‘May’, ‘can’ or ‘could’ – used when an action does not fall into either of the categories above, but is considered to be an appropriate method of controlling or eliminating the hazard. For example:

It may be appropriate to use thermal imaging cameras or on-site thermal scanning equipment to identify the extent of heat within large quantities of waste; this may reveal the effects of combustion that are not visible to the naked eye.

Control measure - Legislative responsibilities

Control measure knowledge

The Fire and Rescue Services Act 2004

This Act is the principal legislation for the fire and rescue services of England and Wales. It describes the duties and powers of fire and rescue authorities in providing a fire and rescue service.

Sections 7, 8 and 9 describe the duties placed on fire and rescue authorities for providing an operational response. Section 11 and 12 give fire and rescue authorities the power to respond to
other types of emergency than those described in sections 7, 8 and 9.


**Health and Safety at Work, etc. Act 1974**

In relation to health and safety, this Act applies to all employers. It is a wide ranging piece of legislation but in very general terms it imposes the general duty on fire and rescue authorities to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all of their employees (section 2(1)) and of those persons not in fire and rescue service employment who may be affected by fire and rescue service activity (section 3(1)). A fire and rescue service employee also has a duty to take reasonable care for the health and safety of him/her self and of other persons who may be affected by his/her acts or omissions at work.

The relevant sections of this Act apply equally to the whole of the UK.

**Management of Health and Safety at Work Regulations 1999**

Among other things these regulations require fire and rescue authorities to:

- Make suitable and sufficient assessment of the risks firefighters may be exposed to while they are on duty, and which may affect their health and safety (Regulation 3(1)(a))
- Implement any preventive and protective measures on the basis of the principles specified in the regulations (Regulation 4)
- Make arrangements for the effective planning, organisation, control, monitoring and review of the preventive and protective measures (Regulation 5)
- Provide such health surveillance as is appropriate with regard to the risks to health and safety that are identified by the risk assessment (Regulation 6)

**Safety Representatives and Safety Committees Regulations 1977 (as amended) and Codes of Practice**

provide a legal framework for employers and trade unions to reach agreement on arrangements for health and safety representatives and health and safety committees to operate in their workplace.

**Health and Safety (Consultation with Employees) Regulations 1996 (as amended)**

sets out the legal framework that will apply if employers have employees who are not covered by representatives appointed by recognised trade unions.

**Control of Substances Hazardous to Health Regulations 2002**

Fire and rescue authorities must ensure that the exposure of firefighters to substances hazardous to health is either prevented or, where prevention is not reasonably practicable, adequately
controlled (Regulation 7(1)). Where it is not reasonably practicable for fire and rescue authorities to prevent the hazardous exposure of firefighters, fire and rescue authorities must, amongst other things, provide firefighters with suitable respiratory protective equipment (that must comply with the Personal Protective Equipment Regulations 2002 and other standards set by the Health and Safety Executive).

**Dangerous Substances and Explosive Atmospheres Regulations 2002**

Fire and rescue authorities are obliged to eliminate or reduce risks to safety from fire, explosion or other events arising from the hazardous properties of a 'dangerous substance'. Fire and rescue authorities are obliged to carry out a suitable and sufficient assessment of the risks to firefighters where a dangerous substance is, or may be, present (Regulation 5). Fire and rescue authorities are required to eliminate or reduce risk so far as is reasonably practicable. Where risk is not eliminated fire and rescue authorities are required, so far as is reasonably practicable and consistent with the risk assessment, to apply measures to control risks and reduce any detrimental effects (regulation 6(3)). This includes providing suitable personal protective equipment (Regulation 6(5) (f)).

**Confined Spaces Regulations 1997**

A firefighter must not enter a confined space to carry out work for any purpose unless it is not reasonably practicable to achieve that purpose without such entry (regulation 4(1)). If entry to a confined space is unavoidable, firefighters must follow a safe system of work (including using breathing apparatus) (Regulation 4(2)) and put adequate emergency arrangements in place before the work starts (Regulation 5).

**The Work at Height Regulation 2005 (as amended)**

This regulation replaces all of the earlier regulations relating to working at height. The Work at Height Regulations 2005 consolidates previous legislation on working at height and implements European Council Directive 2001/45/EC concerning minimum health and safety requirements for the use of equipment for work at height (The Temporary Work at Height Directive).

**Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995**

In this section, Regulation 3 is particularly relevant because it requires fire and rescue authorities to notify the Health and Safety Executive of any 'dangerous occurrences'. Some examples of dangerous occurrences as defined in Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) that are relevant to fire and rescue service operations at tunnels and underground incidents include: “any unintentional incident in which plant or equipment either (a) comes into contact with an uninsulated overhead electric line in which the voltage exceeds 200 volts; or (b) causes an electrical discharge from such an electric line by coming into close proximity to it.”
Data Protection Act 1998

The Act prescribes appropriate arrangements for storing, obtaining, holding, using or disclosing an individual's personal information. Personal data may be obtained directly by obtaining contact information for individuals in respect of specific sites, or by obtaining contact details on lists of specialist advisers, as examples. It may also be obtained indirectly, such as listing premises or locations where the circumstances of the individuals may identify personal information. Examples of indirectly obtained data may include people residing in a vulnerable persons' refuge, or for example, where their form of medical treatment results in the fire and rescue authority holding information regarding the use of medical gases, which may be regarded as personal information. Fire and rescue authorities who gather information that includes personal data appear to be 'data controllers', as defined by the Act. They have duties in relation to that data.

Strategic actions

Fire and rescue services should:

- Deliver their operational legislative responsibilities, with due regard to all other relevant legislative responsibilities

Tactical actions

There are no tactical actions associated with this control measure.

Control measure - Data and information management

Control measure knowledge

Fire and rescue services capture data and information to support their core functions, including:

- Operations, including fire control room functions
- Fire safety
- Emergency planning
- Investigations
Health and safety
- Operational learning

Fire and rescue authorities should take into account the legal responsibilities placed on them regarding the use, storage and transfer of data. In particular there is a requirement that all relevant data held by the fire and rescue service should be available and should be used to reduce and manage operational risk, whether this be to personnel, other service employees or others for whom the fire and rescue authority is responsible.

Data and information strategy

Fire and rescue services should develop a data and information strategy to determine:

- What data and information is collected and stored
- How the data and information can be stored, used or shared
- How data and information will be security classified
- How data and information will be kept secure
- Who is allowed to access data and information
- How long data and information will be retained for
- The information management systems that will be used, including:
  - Whether they are standalone or integrated
  - The implications of their structure
  - How they support operational activity
  - Contingency arrangements
- What assurance processes will be used to check on adherence to the strategy

The data and information strategy should also set out to ensure that all information-related activity complies to current legislation and regulations, including:

- Data Protection Act
- General Data Protection Regulation
- Security Policy Framework
- Freedom of Information Act
- Human Rights Act, for storage and movement of photographic or video records

Processes should be put in place to identify any changes in legislation or regulations, that will require changes to be made to the data and information strategy. There should also be processes in place for updating relevant personnel on any changes in the data and information strategy.

The data and information strategy should also be considered when fire and rescue authorities develop their risk management plan and should consider types of information including:

- Photographs
• Breathing apparatus boards
• Incident command board
• Messaging and incident logs
• Fire control room voice recordings

Operational data and information

Operational data and information is a critical resource, that assists with functions, such as:

• Planning
• Mobilising
• Organising, leading and controlling an incident

To effectively support operational activity, data and information needs to be:

• Available – to the processes and procedures used to gain it, and provided to those who need to use it
• Accurate – as determined by measuring the information against actual events or occurrences
• Timely – current when it is received
• Relevant – it concerns the situation or problem at hand, and can help solve a problem or contribute to a solution

Information management

Information management involves collecting and managing information from one or more sources and distributing the information to one or more audiences. This sometimes involves those who have a stake in, or a right to, that information.

Information management is a discipline that governs accountability for the structure and design, storage and security, movement, quality, delivery and usage of information required for management and business intelligence purposes.

Information management systems

An information management system (IMS) collects, transmits, processes, and stores information that supports the management functions of an organisation. In fire and rescue services, an IMS may also support operational decision-making and appropriate responses to incidents.

Fire and rescue services may decide to use tailored systems to deliver information to personnel, such as vehicle-mounted data systems, often referred to as mobile data terminals (MDTs).

Report writing and note taking

Legislation, such as the Criminal Procedures and Investigation Act, the Criminal Justice Act and the
**Criminal Justice Act (Northern Ireland)** should be referred to regarding the legal standpoint for official report writing and note taking. This includes the need to:

- Record the information as soon as practicable
- Retain the information in its original and complete format
- Reveal the information when requested
- Review the information for accuracy, procedural applications and assessment of corporate or operational risks and threats

**National incident recording system**

The incident recording system (IRS) is a fully-automated electronic data capture system, which enables data on all incidents attended by the fire and rescue service to be collected. It provides a national standard of data collection to assist with:

- Gaining an understanding of how each service operates
- Planning
- Providing key performance indicators (KPIs)

The IRS also helps to continually improve the timeliness and accuracy of data, and may be used to underpin research and development.

Gathering high quality information from attended incidents is key to understanding and managing risks using the appropriate resources. The use of a core set of questions may assist with this process.

If fire and rescue services input poor quality or inconsistent information, it may result in:

- Inaccurate KPIs
- Inaccurate planning, risk management and decision-making
- Inaccurate shared information, which may affect partners and stakeholders

**Information security**

The data and information strategy should aim to minimise the risk of inappropriate access to electronic or paper sources of data or information. The following three levels are identified in Her Majesty's Government (HMG's) **Government Security Classifications**:

**OFFICIAL**: The majority of information that is created or processed by the public sector. This includes routine business operations and services, some of which could have damaging consequences if lost, stolen or published in the media, but are not subject to a heightened threat profile. There is no requirement to mark routine OFFICIAL information.

**SECRET**: Very sensitive information that justifies heightened protective measures to defend against
determined and highly capable threat actors. For example, where compromise could seriously damage military capabilities, international relations or the investigation of serious organised crime.

**TOP SECRET:** HMG’s most sensitive information requiring the highest levels of protection from the most serious threats. For example, where compromise could cause widespread loss of life or else threaten the security or economic wellbeing of the country or friendly nations.

There are four key principles for security classification:

**Principle one:** All information that HMG needs to collect, store, process, generate or share to deliver services and conduct government business has intrinsic value and requires an appropriate degree of protection.

**Principle two:** Everyone who works with government (including staff, contractors and service providers) has a duty of confidentiality and a responsibility to safeguard any HMG information or data that they access, irrespective of whether it is marked or not, and must be provided with appropriate training.

**Principle three:** Access to sensitive information must only be granted on the basis of a genuine ‘need to know’ and an appropriate personnel security control.

**Principle four:** Assets received from or exchanged with external partners must be protected in accordance with any relevant legislative or regulatory requirements, including any international agreements and obligations.

It will be necessary to identify which employees require access to secure data or information. They will need to undergo security clearance if they need access to data or information which has higher levels of security classification.

Further information about security classifications can be found on the [GOV.UK website](https://www.gov.uk).

**Strategic actions**

Fire and rescue services should:

- Have a data and information strategy
- Procure or develop appropriate information management systems
- Conform to legislation and regulations relating to collecting, using, storing, sharing and disposing of data and information
• Conform to Government Security Classifications

• Identify employees who need to undergo security checks before granting them access to data or information

• Ensure all employees understand their individual responsibility for the data and information entrusted to them

• Consider inputting data to the national incident recording system (IRS) to support and improve the national standard of data collection

• Consider using the data from the national incident recording system (IRS) to improve planning and performance

**Tactical actions**

There are no tactical actions associated with this control measure.

**Control measure - Risk management**

**Control measure knowledge**

There is a legislative requirement for fire and rescue authorities to have effective arrangements for gathering risk information, and to make this readily available to personnel. These arrangements should include an effective audit and review system to ensure that the information remains current.

The risk management planning process identifies and manages risk through:

• Pre-planning for and managing emergencies
• Fire safety
• Crime and disorder initiatives
• Training
• Carrying out day-to-day activities
Most operational risks are foreseeable. However, the risks posed by events such as adverse weather conditions or civil contingencies are not easily quantifiable. A combination of operational risk information, risk assessments, local knowledge and professional judgement should ensure that appropriate risk management processes are put in place.

An operational risk information management system should:

- Incorporate relevant information from other systems
- Develop and support a common approach to the strategic and dynamic analysis of risk
- Determine the appropriate application of resources and processes to address the risks that affect personnel, other emergency responders, members of the public and the environment

There should be clearly-defined strategic responsibilities for the development of policies and procedures within each fire and rescue service. Operational risk information should be managed as part of an integrated approach to managing risk and ensuring safe systems of work for all employees. Therefore managing risk should be considered alongside health and safety management.

The operational risk management process should also take into account other aspects and systems of the service, including fire safety, operational data, organisational skills and resourcing.

External sources of information should be considered with planning and carrying out risk management activities, including:

- Legislation and regulations
- Approved guidance and research
- Health and safety resources

**National Risk Assessment**

The UK National Risk Assessment (NRA) is a yearly process aimed at identifying, characterising and comparing all the major hazards and threats of national significance that may cause significant impacts in the UK on a five-year horizon. Led by the Civil Contingencies Secretariat of the Cabinet Office, it involves a large multi-agency process that allows ranking risks based on the likelihood and impact of the ‘reasonable worst-case scenario’.

According to the Civil Contingencies Act, the NRA constitutes the fundamental basis for capabilities-based planning to support emergency preparedness and response from national to local level. Following on from carrying out the NRA, the Cabinet Office publishes the [National Risk Register of Civil Emergencies](https://www.gov.uk/government/publications/national-risk-register-of-civil-emergencies) (NRR).

In addition to providing information on how the UK government and local responders manage these emergencies, the NRR also signposts advice and guidance on what members of the public...
can do to prepare for these events.

The NRR and other government guidance helps local emergency planning forums to interpret the likelihood and impact of these risks for their local area. This in turn assists the statutory resilience forums to carry out Community Risk Assessments (CRA) and produce Community Risk Registers (CRR). This process ensures there is a fully-integrated risk assessment process between the government and all local responders, including fire and rescue authorities.

**Risk management plans**

In accordance with the relevant fire and rescue service national frameworks, each fire and rescue authority must produce a risk management plan that identifies and assesses all foreseeable fire and rescue related risks that could affect its community, including those of a cross-border, multi-agency or national nature.

The fire and rescue risk management plan must consider the NRA and NRR, the CRA and CRR, and any other appropriate risk assessments or risk registers.

When considering the storage of and access to the risk management plan it is necessary to determine the appropriate information and level of detail. The risk management plan should be produced and published in accessible formats for a wide audience, including:

- Personnel, including incident commanders, to support appropriate decision-making
- Other fire and rescue services and agencies
- The public

**Operational planning**

To be effective and integrate the culture of successful health, safety and welfare management, fire and rescue service planning should be proactive and set out to identify, eliminate and control hazards to reduce the risks to its employees, the public, property and the environment. This takes place at three levels:

1. **Strategic**

   Where a fire and rescue service demonstrates their strategic commitment to the health, safety and welfare of all employees by planning their health, safety and welfare policies, deciding priorities, providing resources, and developing strategies to promote a positive safety culture.

2. **Systematic**

   Where a fire and rescue service plans the delivery of strategies to minimise hazards and risks to employees, to deliver a positive safety culture. This planning ensures that managers assess the level of risk and apply the necessary controls in the operational environment.
3. Dynamic (at incident)

Where operational personnel continuously evaluate and manage risk at the incident. An important part of risk management at this level is the post-incident review where relevant information is recorded and fed back into the strategic decision-making process via the systematic level, so that safety standards can be constantly improved.

National Operational Guidance

National Operational Guidance provides information about the hazards faced by operational personnel and the appropriate control measures to resolve them. By completing a strategic gap analysis of the guidance and considering their risk management plan, fire and rescue services can develop appropriate operational risk assessments.

The guidance has been written to allow flexibility in approach for fire and rescue services to implement control measures appropriately in their area for their personnel, resources and considering their own priorities and risk tolerance.

The guidance aims to allow flexibility and discretion in approach, so that personnel can respond in an appropriate and proportional manner to the hazards they encounter, in the context they find them, and through considering the benefits of their actions. Where policies or procedures prevent action that is necessary due to unforeseen circumstances or unidentified hazards, operational discretion may be applied. Detailed information about the application of operational discretion is provided in the Incident command guidance, and in the Incident command: Knowledge, skills and competence.

The guidance should not be applied directly to the activities of fire and rescue services; this should be informed by local risk management planning, equipment, training and resourcing. It is recognised that the emergency response priorities and capabilities of each fire and rescue service will differ.

Operational risk assessments

Planning should establish, implement and maintain procedures for hazard identification, risk assessment and determining the necessary controls. In the context of operational risk information, the hazard identification and risk assessment processes should take into account the:

- Range of possible fire and rescue service activities
- Which employees may be involved in using operational risk information, and their competence
- Incident command system and management procedures in place
- The risk tolerance of the organisation
Operational risk assessments should identify how the fire and rescue service will implement the control measures required to eliminate or reduce risk. These control measures may require:

- Appropriately trained personnel, including specialist advisers
- Suitable vehicles and equipment, including
  - Personal protective equipment (PPE)
  - Respiratory protective equipment (RPE)
- Detailed procedures on how to establish a safe system of work; these may take the form of:
  - Standard operating procedures
  - Tactical plans
  - Operational information notes
  - Other policy and procedure statements

It is important for fire and rescue services to determine their level of risk tolerance, and to ensure all employees understand the implications. This will affect the activity of personnel, and incident commanders in decision-making and development of tactical plans.

All risk assessments should consider a partnership approach with other fire and rescue services and other agencies. Managing operational risk information should take into account the existing and future needs for intraoperability and interoperability.

Horizon scanning should form part of risk management planning. Fire and rescue services should consider nationally-identified incident patterns and how their area is likely to change, including planned developments or expected changes such as:

- Community risk profile
- Housing stock
- Infrastructure
- New industry
- Technological developments

Further and more specific information on operational risk information is provided in the Site Specific Risk Information and Emergency response plans.

For further information about its implementation, refer to the guidance for Operational risk assessment.

**Management of operational risk information**

All relevant operational risk information should be recorded and made available to those who legitimately need to access the information.

The commitment and leadership of the strategic management team is essential to the success of
the operational risk information system. Managing operational risk information is part of an integrated approach to managing risk and ensuring safe systems of work for all employees. The approach should be defined, and supported by policies and procedures to ensure there is:

- Strategic direction which demonstrates how the duty for the provision of operational risk information is linked to the operational duties of personnel
- Assigned responsibility for establishing, implementing and maintenance of operational risk information
- Established processes for the audit and review of operational risk information
- Clarity of responsibility:
  - Of the fire and rescue service management team
  - Across different functions in the fire and rescue service
  - Between partner agencies
- Clear documentation, with document control and compliance with data and information management
- Appropriate distribution of operational risk information to employees; this may include the use of electronic means such as mobile data terminals
- Appropriate sharing of operational risk information with other agencies, subject to data and information management compliance

**Monitoring performance of risk management**

The provision and management of operational risk information and the risk management plan should be monitored in order to:

- Assess the effectiveness of arrangements
- Provide reports on the qualitative and quantitative measures of performance
- Provide information on how the risk management system is operating
- Identify areas where corrective action or continual improvement is required
- Consider its impact on health and safety management
- Provide a comparison between historic and current performance
- Consider the views of other parties and agencies
- Identify the benefits of the risk management plan

**Strategic actions**

Fire and rescue services must:

- Produce and maintain a risk management plan in line with legislative requirements

Fire and rescue services should:
• Develop risk management plans that are compliant with legislation, and in consideration with the National Risk Assessment and Community Risk Assessment

**Tactical actions**

There are no tactical actions associated with this control measure.

**Control measure - Health and safety management**

**Control measure knowledge**

Fire and rescue authorities need to meet their legislative requirements with regard to health and safety, and discharge their duties safely and effectively. Health and safety management should be integrated into fire and rescue service management systems, and should support risk management planning.

The Health and Safety Executive (HSE) publication, *Managing for health and safety (HSG65)* provides a ‘Plan, Do, Check, Act’ approach to achieve a balance between the systems and behavioural aspects of management. It treats health and safety management as an integral part of good management generally, rather than as a standalone system.

This guidance focuses on the fire and rescue service's operational response, and the training for that operational response. In addition, fire and rescue services will need to develop health and safety policies for non-operational activities.

**Legislation and regulations for health and safety at work**

The Health and Safety at Work etc. Act and the Health and Safety at Work (Northern Ireland) Order apply to all activities of fire and rescue authorities as the employers of fire and rescue service personnel. The acts require employers to ensure the health, safety and welfare at work of their employees and that their activities do not adversely affect the health and safety of other people.

These health and safety duties are not absolute and are qualified by the test of what is reasonably practicable. Therefore the acts do not require all risks to be eliminated, and the Health and Safety Executive (HSE) and the Health and Safety Executive Northern Ireland (HSENI) recognise that, even when all reasonably practicable precautions have been taken to deal with foreseeable risks, harm
could still occur.

The acts are supported by a series of regulations, approved codes of practice and guidance documents that impose a comprehensive range of health, safety and welfare responsibilities on fire and rescue authorities. Some regulations impose absolute duties but the majority are qualified by the test of what is reasonably practicable.

The Health and Safety Executive (HSE) and the Health and Safety Executive Northern Ireland (HSENI) are the enforcing bodies for health and safety matters within the UK fire and rescue services. They have a remit to carry out inspection, investigation and enforcement, as well as to provide advice and guidance to all fire and rescue services.

**Health, safety and welfare policies**

Fire and rescue services must implement a policy statement indicating their commitment to health, safety and welfare. The overarching policy and other supporting policies should cross-reference to appropriate procedures. All policies should be concise and provide clarity.

There are ten key elements to effective health, safety and welfare policies:

1. The organisation's responsibilities

The general statement of intent of the governing bodies and the lead manager should state commitment to the wider vision. This should be reviewed, signed and dated at regular intervals, or following significant events. The overarching health, safety and welfare policy of the fire and rescue service governing body can specify the responsibilities of personnel from the chief officer to the firefighter, detailing key job titles, responsibilities and how and when actions are taken. This includes the provision of training and the duties of specialist advisers.

2. Arrangements for consulting with employees

There must be arrangements in place to consult with employee safety representatives and representative bodies on matters relating to health, safety and welfare, including operational policies and procedures, and hazard analysis.

3. Arrangements for procuring and maintaining operational equipment

Fire and rescue services should have adequate and appropriate arrangements in place to ensure that all vehicles and equipment requiring maintenance are identified, and that suitable maintenance programmes are undertaken. This will include appropriate procedures for identifying the requirement for new or replacement equipment, and determining that it is fit for purpose, matches the requirements of the risk-management plan, and supports the health, safety and welfare policies.
4. Arrangements for identifying, interpreting and reviewing guidance and information

Fire and rescue services' governing bodies should ensure adequate systems and processes are in place to identify the implications of National Operational Guidance, National Operational Learning action notes and other NFCC publications, as well as health, safety and welfare legislation and regulations. Individuals with the relevant competence should review existing guidance and service procedures.

For more information refer to:

- National Operational Guidance Implementation model
- Strategic Gap Analysis user guide

5. Arrangements for developing and reviewing procedures

There must be a systematic approach to the identification of risks and the allocation of resources to control them.

6. Communicating information to relevant personnel

Appropriate and current information must be distributed to relevant personnel on the hazards, risks and control measures associated with their work.

7. Arrangements for reporting, recording and investigating accidents and near misses

There must be a system in place to investigate accidents and incidents to identify immediate and underlying causes. This should be linked to suitable arrangements for preventing recurrence and addressing learning outcomes. These systems should enable personnel and risk prevention agencies to analyse and identify trends and issues.

8. Arrangements for reviewing resources for health, safety and welfare

It is recognised that the resourcing of health, safety and welfare will vary between authorities depending on their local planning arrangements.

9. Arrangements for monitoring and measuring performance

Fire and rescue authorities should be able to provide evidence of monitoring and measuring performance against pre-determined plans and standards.

10. Arrangements to address health, safety and welfare including occupational health issues

Fire and rescue authorities must ensure they have adequate arrangements in place for the health, safety and welfare of employees.
Policies for operational activity

Policies for operational activity should have the important principles of health, safety and welfare embedded within them. The guiding principles of health, safety and welfare in the fire and rescue services are for there to be:

- A clear and positive leadership from governing authorities and principal officers for:
  - Matters relating to health, safety and welfare
  - Promoting a positive health, safety and welfare culture
- A named and appropriately qualified person to take lead responsibility and accountability for the management of health, safety and welfare in the organisation
- Constant and active health, safety and welfare engagement in the service's activities
- Engagement of employees, encouraging two-way communication and promotion of a positive health, safety and welfare culture throughout the service
- Clear personal responsibilities of individuals and processes to ensure health, safety and welfare is embedded into all activities
- Scrutiny of the health, safety and welfare management system, which must be an identified function of the fire and rescue authority
- Well-established management and incident command arrangements in place for controlling the operational risks to personnel
- Appropriate resourcing of safety management to ensure duties are met on and off the incident ground, and while on-call for retained duty system personnel
- Assurance and [debrief management](#) for operational incidents
- Provision of training to ensure personnel are competent to perform their roles and to make appropriate operational decisions
- Monitoring to resolve health and safety concerns, based on:
  - Leading indicators; these are predictive measurements that can use workplace audits and inspections to prevent future accidents
  - Lagging indicators; these are output measurements that include monitoring and evaluating accidents, near misses and operational activity
- Clear internal standards and safe operational procedures, to ensure personnel understand that effective health and safety does not mean avoiding risks but managing them responsibly to protect emergency responders, the public, property and the environment

Learning

Sharing good practice within the organisation, and with other fire and rescue services and agencies, enables lessons to be learned from any health and safety event. National Operational Guidance recommends the use of National Operational Learning and Joint Organisational Learning to share learning from planning, incidents and training.
Strategic actions

Fire and rescue services must:

- Implement a policy statement indicating their commitment to health, safety and welfare
- Comply with legislation and regulations relating to health, safety and welfare

Fire and rescue services should:

- Have arrangements in place for identifying, interpreting and reviewing guidance and information that could impact on health, safety and welfare in the organisation
- Engage with employees and encourage two-way communication in order to promote a positive health, safety and welfare culture throughout the service
- Appoint at least one named person to take lead responsibility and accountability for the management of health, safety and welfare in the organisation
- Ensure senior managers are held responsible for the management of health, safety and welfare
- Ensure the responsibilities of individuals within the service for the management of health, safety and welfare are met
- Have arrangements in place to consult with employee safety representatives and representative bodies on matters relating to health, safety and welfare
- Have processes in place to support the prompt identification, investigation and addressing of health and safety events
- Implement monitoring procedures to identify trends and patterns from accidents and near misses
- Implement processes to identify health and safety concerns using both leading and lagging
indicators

- Record actions taken following a health and safety event, and share this information with relevant personnel and organisations

- Ensure all operational equipment is procured and maintained in line with health, safety and welfare policies

**Tactical actions**

There are no tactical actions associated with this control measure.

**Control measure - Site-Specific Risk Information**

**Control measure knowledge**

Fire and rescue authorities must make arrangements to obtain the information necessary to deliver their legislative responsibilities. This includes the requirement for site-specific assessment.

Developing Site-Specific Risk Information (SSRI) will also help to inform the wider topic of operational risk planning and management.

A site-specific assessment should take into account current legislation and regulations for inspections, and should include information on pre-planned fire and rescue service activities.

It may not be possible to identify and plan for all risks in a services area. Fire and rescue services should consider developing risk information for contexts with common hazards, such as a roadways, bodies of water or warehouses.

**SSRI process**

Fire and rescue services should establish a programme of work for developing and distributing SSRIs, which includes the following steps:

- Develop the criteria for requirement of SSRI
- Develop systems and processes to embed a culture of SSRI gathering, recording and
communication

- Produce suitable templates to record and capture the SSRI
- Identify the sites to be inspected
- Assess the type, size and severity of identified risks
- Record significant findings
- Gain local specialist advice from partner agencies or other organisations
- Ensure that familiarisation visits and exercises are carried out at identified premises or sites; this may require participation from cross-border resources
- Establish a delivery method to present SSRI in a clear and timely manner
- Embed a quality assurance programme
- Schedule reviews and audits for the validity and accuracy of such information
- Ensure communication systems are in place to inform relevant personnel, stakeholders and partner agencies of the SSRI; this may need to include resources across borders or boundaries
- Make SSRIs available to personnel in accessible formats, to help them successfully plan for and resolve incidents
- Structure risk information so it is easy to identify risk critical content, such as evacuation arrangements and significant hazards
- Identify specific operational knowledge, equipment, skills and understanding, which may need to be incorporated into local training plans
- Encourage feedback from personnel about any errors or omissions in SSRIs
- Ensure inaccuracies in or omissions of SSRIs are resolved and systems updated

Communication about and distribution of SSRIs should be compliant with the data and information strategy of the fire and rescue service. For example, information about sensitive sites may need to be protected and distribution limited to personnel who have the appropriate security clearance.

SSRI content

This guidance provides some suggested topics for the development of SSRIs. However, each fire and rescue service should develop SSRIs for the qualifying sites in their area.

A SSRI gathering template has also been provided.

SSRI: Generic content

- Location of:
  - Specified access routes and points
  - Rendezvous points (RVPs)
  - Strategic holding areas (SHAs)
  - Areas that are unsuitable for vehicular access
- Contact details of:
- Responsible person
- Duty holder
- Accountable person
- Specialist resources for advice or assistance

- Environmental risk
- Ground conditions
- Presence of confined spaces
- Type and location of utility supplies
- Presence of hazardous substances, including UN number
- Presence of cylinders, including acetylene
- Presence of biological hazards
- Proportionate level of response
- Salvage plans
- Disaster plans
- Alarms or warning signals
- Noise hazards
- Animals held in a permanent or semi-permanent location
- Evacuation plans
- Facilities to evacuate or shelter large numbers of people
- Requirement for specific firefighting media
- Requirement for large volumes of firefighting media
- Water supplies, hydrants and alternative water supplies
- Appropriate locations for firebreaks

**SSRI: Bodies of water**

- Type of use
- Launch sites and safe entry points
- Water movement, including the impact of tides
- Upstream and downstream features
- Water temperature charts

- Contact details of responsible agencies

**SSRI: Buildings**

- Location of:
  - Emergency boxes (premises information boxes)
  - Building fire control room
  - Access, egress and designated evacuation routes
  - Firefighting lifts
  - Refuge points and protected zones
Presence and control of:
- Building systems
- Engineered solutions and associated fixed installation systems
- Fixed communications systems
- Security features

Design and layout of building:
- Open-plan layouts
- Atriums, including any fixed ventilation systems
- Mezzanines, galleries, raised storage areas
- Auditoriums or stadiums
- Basements

Occupancy type:
- Vulnerable people
- Presence of hoarding
- People who may require assistance

Evacuation:
- Evacuation strategy
- Evacuation alert systems
- Personal emergency evacuation plans (PEEPs)

Building design:
- Structural elements, frames and materials
- Construction materials
- Compartmentation, including concealed spaces
- Information about alterations or conversions

Potential bridgehead locations
- Firefighting facilities
- Firefighting contingency arrangements

SSRI: Flooding
- Locations that are subject to flooding
- Links to flood response plans
- Potential sites for high volume pumps (HVPs)

SSRI: Industry
- Design and layout of site
- On-site vehicles
- On-site machinery
- Large volumes of hazardous substances
- Laser equipment
- Scanning equipment
Pressure systems and equipment
Silos and storage tanks
Slurry pits and lagoons
Combustible dust
Extreme heat
Extreme cold
Electromagnetic field (EMF)
Magnetic equipment
Molten materials
Munitions
Sites with security features
Waste sites

SSRI: Sites of special scientific interest

- Location and boundaries of the site of special scientific interest (SSSI) or other conservation area
- Environmentally-safe areas for deployment and movement of fire and rescue service resources

SSRI: Transport

- Transport networks and modes of transport likely to be present
- Evacuation from transport networks or modes of transport
- Agencies likely to respond to transport related incidents
- Methods and routes for transporting hazardous material cargo
- Aerodromes:
  - Buildings
  - Infrastructure
  - Access arrangements
- Rail networks:
  - Provision of safe access for the fire and rescue service
  - Ownership and management responsibility
  - Type and control of power supplies
  - Underground routes
  - Tunnels
- Waterways:
  - Type of operation
  - Access and egress points
  - Isolation points

SSRI: Tunnels and underground structures
Type, size and use

SSRI: Utilities and fuel

- Uninterruptible power supply systems or standby generators
- Renewable energy systems, including photovoltaic (PV) systems
- Gases, liquids, flowing materials
- Presence of chemicals
- High-security features

SSRI: Wildfires

- Locations that are subject to wildfires
- Availability of wildfire fire plans
- Agencies likely to respond to wildfires
- Potential sites for high volume pumps (HVPs)

Strategic actions

Fire and rescue services should:

- Establish a programme of work for developing, reviewing and distributing SSRIs
- Provide all operational personnel with awareness training on the content, structure and purpose of SSRIs
- Ensure the distribution of SSRIs is compliant with their data and information strategy

Tactical actions

There are no tactical actions associated with this control measure.

Control measure - Emergency response plans
Control measure knowledge

The Civil Contingencies Act (CCA) places a responsibility on Category 1 responders to produce and have in place emergency response plans, which may include procedures for determining whether an emergency has occurred.

There is a national framework for managing emergency response and recovery, irrespective of the size, nature and cause of an emergency. It also identifies the various tiers of single and multi-agency management, defining the relationship between them and a common framework within which individual agencies can develop their own plans and procedures.

For further information see:

- Emergency Response and Recovery Guidance (England and Wales)
- Responding to Emergencies (Scotland)
- Emergency Preparedness (Northern Ireland)

When developing emergency response plans a wide-range of factors should be considered, including:

- Anticipation, by horizon scanning for risks and potential emergencies
- Preparedness, by having a shared understanding of roles and responsibilities and how they fit into the wider, multi-agency picture
- Managing operations and making decisions at the lowest appropriate level
- Establishing a clear and unambiguous strategic aim and objectives
- Putting in place information management and appropriate preparatory measures to build situational awareness
- Developing a Common Recognised Information Picture (CRIP), a single, authoritative strategic overview of an emergency or crisis that is developed according to a standard template and is intended for briefing and decision-support purposes
- Integration, by having multi-agency involvement, roles and prominence
- Co-operation, by supporting inclusive decision making processes, openness and mutual trust
- Continuity, through using established experience, expertise, resources and relationships to manage and respond to emergencies

Pre-planning and liaison should aim to:

- Improve operational capabilities
- Develop more inclusive policies, procedures and terminology
- Deliver multi-agency plans for managing the foreseeable risks identified in:
  - National Risk Register
  - Community risk registers
Intraoperability and interoperability

The fire and rescue national frameworks state that fire and rescue services should collaborate with other fire and rescue services, other emergency services, wider Category 1 and Category 2 responders and local emergency planning groups, to achieve intraoperability and interoperability. Further information is provided in the JESIP publication, *Joint Doctrine: the interoperability framework*.

Collaboration can be supported by having common or compatible:

- Communication systems
- Equipment
- Command and control structure
- Co-ordination arrangements

Prepare, test and exercise emergency response plans

The development of emergency response plans with specialist advisers, other agencies and operational personnel should focus the content of the plans to:

- Identify key objectives
- Identify options
- Provide tactics
- Ensure multi-agency agreement

All plans should be tested and exercised in accordance with the enforcing authority's requirements, which should be proportionate to the identified risks. Plans should be reviewed and updated at appropriate intervals, and following any learning events or exercises.

Fire and rescue services should be involved in preparing, testing and exercising emergency response plans in relation to any legislative requirements, such as the Control of Major Accident Hazards (COMAH) regulations. There should also be a training and exercising strategy for significant hazardous materials sites, as it is particularly important that plans for high-hazard sites do not have conflicts between agencies.

Sharing information

Information is critical to emergency response and recovery, including mobilising and operational activity. Sharing information, intelligence and data effectively is key to collaboration, ensuring an effective and co-ordinated response to foreseeable risks and emergencies. However, maintaining the flow of information between agencies, with partners, and to the public, can be extremely challenging under emergency conditions.
Effective information management depends on the appropriate preparatory measures being in place to build situational awareness and on developing a Common Recognised Information Picture (CRIP) at the local, regional and national levels if appropriate. Such measures will need to support:

- Transmitting and collating potentially high volumes of information from multiple sources
- Assessing collated information to ensure its relevance, accuracy, timeliness, accessibility, interpretability and transparency
- Translating available information into appropriate information products; for example to:
  - Brief the Strategic Co-ordinating Group (SCG) or national groups
  - Release it to the media for public information

Some of the challenges that may need to be addressed in collating, assessing, validating and distributing information under emergency conditions include:

- Information management procedures varying between agencies
- Differing perspectives on the event or situation
- Mistakes or misunderstandings occurring under pressure
- Overloaded communications

Fire and rescue services should work with other agencies to establish efficient information management systems and embed their use in multi-agency emergency management arrangements. Information should be shared in a way that is responsive to the needs of emergency responders, including control room personnel, and is compliant with legislation relating to information security. Information should also be compliant with the Government Security Classifications.

The information needs and arrangements of each agency should be thoroughly understood and tested, through the use of pre-planning, and establishing protocols that can be implemented during an emergency.

**Using common terms and symbols**

A common standard for terms and symbols is critical to effective intraoperability and interoperability. The use of terminology unique to a single agency is likely to reduce the benefits of intraoperability or interoperability, and may reduce the level of co-operation and co-ordination locally, regionally or nationally. This may also apply to concepts of operation, memoranda of understanding or other agreements.

Terms and definitions should wherever possible be drawn from national standards and publications, rather than local initiative and invention. For further information refer to:

- Civil Contingencies Act
- Cabinet Office - Civil Protection Lexicon
Common Map Symbology

**Strategic actions**

Fire and rescue services should:

- Ensure that personnel are familiar with the roles and responsibilities of other agencies for emergency response

- Pre-plan and liaise with other agencies and partners to enhance effective joint working when delivering an emergency response

- Prepare, test and exercise emergency response plans; these should be reviewed and updated periodically and following learning events or exercises

- Ensure an effective and compliant system is in place for sharing information with partner agencies when delivering an emergency response

- Work with other agencies to develop common use and understanding of terms and symbols appropriate for emergency response

**Tactical actions**

There are no tactical actions associated with this control measure.

**Control measure - Operational audits**

**Control measure knowledge**

Operational audits should be used to ensure the organisation is in a state of readiness for operational response. This process is good practice and may also support a fire and rescue authority's duties. For example, under the Fire and Rescue National Framework for England, there is a requirement to produce an annual statement of assurance.
It should be noted that operational audits are not connected with the National Resilience assurance process.

Operational audits can help to improve the effectiveness and implementation of:

- Policies and procedures
- Hazard identification
- Risk assessments
- The operational response
- Operational assurance of incidents

The process will require the appointment of operational assurance officers, who are appropriately trained to assess and monitor the performance of other personnel.

Operational audits may also be a source of information for operational learning and risk management planning.

**Benefits**

Operational audits should be used to help a fire and rescue service to understand the responsibilities and risks faced by their personnel. An audit should determine if there are efficient, effective and reliable processes in place for the gathering of operational information and data. The audit process should predetermine the areas to be covered and the benchmarks against which the information will be measured, including:

- Preventing injury or illness of personnel and other emergency responders
- Managing and mitigating risks in the community
- Continual improvement in providing accurate, relevant and timely operational information
- Compliance with the legislative duties of fire and rescue authorities in relation to operational risk information
- Compliance with policies and procedures
- The service's ability to meet their operational and strategic objectives

Audits should be planned on a regular basis to carry out a full and critical appraisal of the service's operational risk management system. These should aim to:

- Support continual improvement and address weaknesses in policies or the organisation
- Identify the need for an independent audit as part of a robust review programme
- Assess the level of control exercised by management
- Identify opportunities for improvement
- Provide senior managers with an understanding of the degree to which management has achieved its responsibilities and has put in place systems that reduce operational risk, including:
Reliability and integrity of operational information
Effectiveness and efficiency of operations
Safeguarding of assets and data
Compliance with legislation, regulations and contracts

**Monitoring performance**

Measuring performance against predetermined standards provides information on how effectively fire and rescue services are controlling risks, and provides feedback that can influence organisational learning and the decision-making process.

Performance indicators can be used for qualitative and quantitative monitoring of organisational performance, as part of an ongoing review process for the operational risk management system.

Arrangements should also be made to review any circumstances where unacceptable performance is identified, whether during training or at incidents. The reasons for the unacceptable performance should be determined, rectified and communicated if appropriate.

It is important that any lessons learned gained through identifying and managing unacceptable performance are shared, so as to benefit the entire organisation and feed the process of continuous improvement.

**Debrief management systems**

Debrief management systems are essential to ensure a robust and consistent means of capturing the outcomes of monitoring, audit or review of operational tasks and activities.

Debriefs are a key component of continuous improvement in all organisations. Features of a good debrief management system are:

- The ability to record all information relating to an incident, including any associated and relevant documentation, such as:
  - Policies and procedures
  - Training manuals
  - Site-Specific Risk Information (SSRI)
  - Standard operating procedures (SOPs)
- Record who has been assigned any tasks resulting from the debrief
- The ability to produce reports based on the information collected from all debriefs
- Producing data that can be used for scrutiny, discussion and action purposes
- Capturing and monitoring any recommended actions to ensure:
  - Appropriate changes are implemented
  - Target dates are met
  - That final outcomes of individual issues are published and reviewed
Strategic actions

Fire and rescue services should:

- Use operational audits to maintain and improve their ability to manage risks and deliver an operational response
- Appoint suitably trained operational assurance officers
- Establish an operational audit process
- Measure and monitor performance against predetermined standards to provide information on how effectively they are controlling risks
- Consider using performance indicators for qualitative and quantitative monitoring of organisational performance
- Establish a debrief management system that supports the full debrief process from initial discussions through to implementing recommended actions
- Establish a process to ensure audit recommendations are assessed and implemented

Tactical actions

There are no tactical actions associated with this control measure.

Control measure - Competence and training

Control measure knowledge

Occupational competence is defined as the ability to consistently achieve the stated outcome of workplace performance.
Competence and training policies should be established for the roles of all employees, including:

- Operational personnel of all levels
- Policy writers
- Personnel who compile risk information or undertake risk assessments
- Training instructors and assessors
- Fire control personnel
- Non-operational personnel
- Investigating officers
- Specialist advisers
- Operational assurance officers

Competence and training policies should detail:

- Clear definitions of the knowledge and skills that are required to demonstrate competence
- How and to what level the required knowledge and skills will be assessed
- How to identify employees who have not used their skills during a set period, indicating the need for refresher training or retesting
- How to confirm that employees have received appropriate and sufficient training
- The ways in which employees who have failed to demonstrate occupational competence will be managed

The expected occupational competence for all roles should be established taking into account:

- The risk management plan
- The expected activities of an individual based on their role
- The incidents that operational personnel are likely to encounter

The established occupational competences should be based on role maps and relate to the relevant benchmark standards that define what competence is.

Services should set up and deliver an assessment, assurance and verification process that will give the competence process the impartiality, consistency, robustness and auditability it needs.

**Managing competence and training**

To effectively manage competence and training it is necessary to have in place a policy that is clear and well-structured. It should provide information on how competence and training is maintained and recorded.

A recording system of competence and training should:

- Be easy to maintain
• Provide all employees with the means to record and manage competence and training
• Help to identify failings in competence, and what support is available to help correct this
• Provide the means to interrogate records to identify up-to-date competence and training records of all employees

Training needs analysis

At a strategic level, fire and rescue services should have a clear understanding of the hazards faced by its employees. Risk assessments should be used to develop a training needs analysis (TNA), based on elements including:

• The clearly defined roles that are required to meet the service’s risk management plan
• The tactical plans needed to deliver the expected outcomes, based on the resources available
• Defined standards of competence for:
  ◦ Knowledge
  ◦ Skills
• An action plan for how competence will be achieved, including:
  ◦ Acquisition of knowledge
  ◦ Acquisition of skills
  ◦ Consolidation and enhancement of job-related expertise
  ◦ Maintenance of competence
  ◦ Responsibilities, methods and frequency
• Correlation of activities to the appropriate training specifications or standards and role maps

Based on the training needs analysis for all employees there should be:

• Successful training to an appropriate standard, relevant to each employee’s role
• Competent and proportionate assessment and appraisal of knowledge and skills

For operational personnel, the training needs analysis should also consider:

• How training activities will be demonstrated in an operational context
• How training will be synthesized in the absence of attending sufficient and appropriate incidents

To support the training needs analysis, effective training should be developed and delivered by suitably qualified personnel, or by an external training provider with appropriate credentials.

Competence standards for operational risk assessments

Standards should be established for personnel carrying out operational risk assessments, including competences for:
• Accurately identify the hazards for:
  ◦ Personnel
  ◦ Members of the public
  ◦ Property
  ◦ The environment
• Understanding the range of risk management options available within their fire and rescue service or from other agencies to remove or reduce risks
• Understanding their responsibility for the safety of others and the effect of their actions on the effectiveness of the safety system
• The ability to make professional judgements, taking account:
  ◦ The available information
  ◦ The severity and likelihood of the risk being assessed
  ◦ The critical nature of the risk management options
• Knowledge of the requirements and implications of legislation and regulations relevant to the fire and rescue service

Command competence

Due to its complexities, further detail relating to command competence is provided in Incident command: Knowledge, skills and competence.

Assess and monitor operational competence

Due to the hazards that may be encountered, it is important to be able to identify operational personnel in need of additional support and development at an early stage. While simulation can provide valuable evidence of potential performance and application in the workplace, fire and rescue services may choose to use workplace assessment at incidents to monitor for further evidence of application, as well as maintenance of individual competence.

When conducted at an operational incident, workplace assessment provides an important contribution to building a profile of an individual's development by comparing a practical demonstration of underpinning skills, knowledge and understanding of operational response against the role map.

The effectiveness of a workplace assessment will depend on the competence of the assessor. As with any potential learning experience, a workplace assessment should provide objective, constructive feedback immediately after the activity. A suitable record of the activities that were assessed should be made.

Workplace assessments can be very useful if there is evidence that the competence of personnel carrying out safety-critical activities is not up to standard. There should be procedures in place for instances when it is necessary to remove an individual from an activity or their operational role.
until a suitable demonstration of underpinning knowledge and skills has been obtained.

**Strategic actions**

Fire and rescue services should:

- Establish competence and training policies for the roles of all employees
- Have a policy defining how competence and training will be maintained and recorded
- Set up and deliver an assessment, assurance and verification process to support the competence process
- Maintain competence and training records for all employees
- Develop a training needs analysis (TNA) of the roles its employees perform
- Develop and deliver effective and relevant training for all employees
- Have defined standards of competence for operational risk assessment
- Have processes in place to assess and monitor operational competence
- Provide assistance to personnel if any gaps in competence are identified
- Establish clear guidelines about the restrictions placed on personnel who have failed to demonstrate competence, and provide them to personnel and their managers

**Tactical actions**

There are no tactical actions associated with this control measure.
Control measure knowledge

Following an incident, fire and rescue services should perform debriefs, investigations and use the assurance process for operational incidents to identify learning, which can:

- Improve public safety
- Improve the safety of fire and rescue service personnel, and others involved during or after fire and rescue service activities
- Share previously unidentified hazards and risks
- Share previously unidentified safe systems of work and control measures

Fire and rescue services should put in place processes and support arrangements for operational learning. This should include the arrangements that would be appropriate for any multi-agency operational learning.

Collecting information

The recording and sharing of significant findings from incidents and investigations helps to inform future practice. This process should start at the incident ground with thorough recording of relevant operational activity, and include a robust incident debrief procedure.

Debriefs should be led in a structured manner and take place at the most practical time following the closure of an incident. They should allow all responders the opportunity to contribute, to highlight good practice or areas of development and to be able to do so in an open and constructive environment. The aim of debriefs is to assist in identifying individual, team or organisational learning.

An incident debrief procedure plays a vital part in both personal and organisational learning. It fulfils a critical or key need for effective learning and development by connecting a root cause with an associated effect. Once identified, this process will enable clear plans or programmes to be agreed, which can be used to address or improve any shortfalls in the fire and rescue service’s policies, procedures or information.

Investigation can play an important part in supporting future learning by providing a structured and objective approach to identifying and capturing evidence. This approach should ensure that it withstands scrutiny in its future application and is fit for purpose. Operational learning from any incident type may provide information pertinent to public or responder safety.
Learning opportunities should be identified and shared locally and nationally as appropriate to improve intervention and safety, identify hazards and develop safe systems of work. Any learning should also be shared with National Operational Learning. For further information refer to the Good practice guide for fire and rescue services.

Once the opportunity for future learning has been identified, careful and early consideration should be given to the type and format of information required.

There should be careful consideration about the environment in which the information will be used, as any use of information is subject to legislation and regulations. Refer to Data and information strategy.

**Monitoring and highlighting trends**

A trend consists of several events that exhibit one or more features in common. This may be geographical, physical or related to other circumstances under which they occur.

Failing to identify trends at the earliest possible stage can risk the possibility of the number or severity of events increasing, so early identification is important. This is particularly true of fire-setting, where a series of small fires may reflect someone's growing confidence before attempting a more serious attack.

Trends in fires or other types of incidents may relate to new products, or changes in the way existing products are used. Investigation can assist when identifying a trend, by establishing its cause, confirming common features and collecting the evidence required to influence a solution.

Identifying and researching a trend should provide a means by which targeted interventions can be taken. Once action has been taken, the impact on the trend should be monitored both remotely and through attendance at scenes. Care will also be required to ensure the problem has been addressed and not just displaced. Effective use of analysis, and fire investigation where appropriate, should help to confirm this.

**External liaison and information**

Liaison with other fire and rescue services and organisations may help to establish whether the trend is localised or being seen in other areas. This liaison can take place through existing groups and communication networks, or established specifically for the trend depending on the nature of the issue. For example, with fire-setting, close liaison with the police and other agencies that maintain relevant data will be important; they may have additional knowledge about individuals or activities.
Strategic actions

Fire and rescue services should:

- Have processes and support arrangements for operational learning
- Have processes for sharing appropriate learning with National Operational Learning
- Appoint a single point of contact (SPOC) for receiving and sharing National Operational Learning
- Have processes and support arrangements for identifying, monitoring and addressing trends
- Liaise with other fire and rescue services and agencies when identifying, monitoring and addressing trends

Tactical actions

There are no tactical actions associated with this control measure.

Control measure - Legal proceedings

Control measure knowledge

For ease of publication the terms 'coroner', 'coroner's court' and 'inquest' have been used. However, it is recognised that other terminology is used outside of England and Wales; the equivalent of these terms should be applied where appropriate, for example, procurator fiscal.

For further information refer to:

- The [Ministry of Justice, Guide to Coroners Services](#) (for details on the inquest process in England and Wales)
- Information and booklets available on the [Crown Office & Procurator Fiscal Service](#) (for details on the inquest process in Scotland)
Fire and rescue service personnel may be called to give evidence at an inquest into the death of an individual. The aim of an inquest is to establish the means, cause and circumstances of a person's death. The coroner is also lawfully charged to identify measures to prevent future deaths in similar circumstances.

The aim of the inquest is not to apportion blame or to attack the behaviours or actions of key personnel such as the emergency services, but to understand the situation leading up to the event the actions of first responders and the conditions in which the deceased may have been found.

Fire and rescue service personnel are seen as professional witnesses. Their role is to assist the inquest in understanding the situation that the fire and rescue service faced on arrival at an incident and to explain their professional observations, actions and outcomes.

The fire and rescue service witness could be presenting evidence as:

- An officer in charge or personnel directly involved in the incident
- A fire investigation officer who has investigated the cause, spread and outcome of the incident
- A fire safety officer who had inspected a building before an incident
- An expert witness

The coroner will take the fire and rescue service witness through their statement and report made in relation to the incident. An inquest is a fact-finding process and it is not necessary to remember exactly what was said at a specific time during a dynamic incident. The coroner will give the fire and rescue service witness the opportunity to add, confirm or change their statement. This may be followed with more specific questions or requests for clarification on key points of a technical or professional nature from the coroner or others in court, including family members of the deceased.

Fire and rescue service witnesses should avoid using technical or working jargon and seek to present evidence in an unambiguous and simple manner. If a witness is asked a question that they cannot give a full or factual answer to, the coroner may direct them not to answer the question and instead seek to resolve the issue through open discussion with the family members in court.

The aim of the fire and rescue service witness should always be to impart their knowledge and observations from the incident in a clear and informative manner and to add clarity to the inquest's understanding of the incident. The inquest is not necessarily concerned with the specific and individual technical aspects of the activities of any one firefighter during a dynamic incident. Prior to attending, those called to appear should:

- Ensure they have copies of their statement and any report previously provided to the coroner
- Review their statement to ensure the contents are accurate
Check dates, times and key facts in the statement
Consider discussing the statement and report with an experienced fire investigation officer, to gain an understanding of the types of questions that may be asked by the coroner or family members of the deceased

Personnel providing witness to a coroner’s court are not on trial but are there to assist the court in understanding the circumstances of the incident and should:

- Be prepared to discuss their professional observations and immediate actions on arriving at the scene so that the coroner has a clear understanding of the physical condition of the incident
- Explain how, as a fire investigation officer, they arrived at their stated hypothesis for the cause of the fire and firespread
- Refrain from drifting from their relevant areas of professional knowledge
- Answer the questions in a factual manner; the coroner will oversee the inquest and manage the impact on the family members

**Strategic actions**

Fire and rescue services should:

- Have guidelines and support arrangements to enable personnel to provide evidence in legal proceedings
- Comply with relevant legislation during legal proceedings
- Carry out appropriate consultation with other emergency services and agencies in preparation for and during legal proceedings
- Ensure evidence and records are prepared to a standard appropriate for scrutiny in any potential legal proceedings

**Tactical actions**

There are no tactical actions associated with this control measure.
Operations guidance

Introduction

This guidance deals with the hazards that may be present at all types and sizes of emergency incidents or non-emergency events. For clarity this guidance has been developed based on the assumption that a fire and rescue service has received a call for help that results in an electronic record being created, even if it is then determined that resources do not need to be deployed.

The scope of this guidance includes hazards and control measures relating to:

- Corporate guidance for operational activity
- Fire control room operations
- Getting to an incident
- At an incident
- Closing an incident
- Investigations

There are two other sections of National Operational Guidance that should be considered at all incidents; Environmental protection and Incident command.

The Incident command guidance contains topics such as:

- Command of an incident, including situational awareness and decision-making
- Managing an incident, including cordon control and sectorisation
- Resourcing an incident, including additional and specialist resources
- Safety management, including risk assessment, safety officers, emergency evacuation and tactical withdrawal of responders and firefighter emergencies

Given the interdependencies in the topics, it is important that this Operations guidance is read in conjunction with the Incident command guidance.

Risk management plan

Each fire and rescue authority must develop their strategic direction through their risk management plan. To determine the extent of their services, strategic managers will consider their
statutory duties and the foreseeable risk within their area.

Work to identify risk and prepare operational plans should consider all stakeholders, including local emergency planning groups and the fire and rescue service risk management plan.

Responsibility of fire and rescue services

Fire and rescue services are responsible, under legislation and regulations, for developing policies and procedures and to provide information, instruction, training and supervision to their personnel about foreseeable hazards and the control measures used to reduce the risks arising from those hazards.

This guidance sets out to provide fire and rescue services with sufficient knowledge about the potential hazards their personnel could encounter when attending incidents. Fire and rescue services should ensure their policies, procedures and training cover all of the hazards and control measures contained within this guidance.

Hazard - Failing to effectively exchange information with other agencies

Hazard Knowledge

Misinformation or a breakdown in communication can lead to unsafe systems of work, and uncoordinated or ineffectual activities being implemented, resulting in failing to achieve priorities and objectives. It can also lead to inefficient use of resources in the operational plan.

There is a risk of misunderstanding when an incident requires a multi-agency response, which may lead to a delayed or inappropriate response. This may be due to issues such as technical challenges or the use of varying terminology between agencies. Issues include:

- Words, terms, phrases, symbols or graphics with different meanings or context
- Words, phrases, symbols or graphics with no meaning in other organisations
Control measure knowledge

The importance of a common approach includes the need to ensure operational risk information can be shared and understood by all agencies involved. There should be an integrated operational response, supported by intraoperability and interoperability arrangements. For further information see the JESIP publication, Joint Doctrine: the interoperability framework.

Information should be presented to ensure that the detail, level and content supports incident commanders, personnel and other emergency responders without overwhelming or overloading them. The information should be clear, concise and readily understood by all. The exchange of information is key in ensuring a full appreciation of the situation and the circumstances of the incident or emergency.

A successful exchange of information will lead to a clear understanding of hazards and risks, operational tactics, control measures and procedures being employed.

A common standard for terms and symbols is critical to effective intraoperability and interoperability.

Strategic actions

Fire and rescue services should:

- Establish compatible terminology, abbreviations, communication systems and risk information for joint working with neighbouring fire and rescue services

- Make arrangements with other agencies, Category 1 and Category 2 responders to develop a common understanding of terms and symbols

- Ensure that incident commanders are familiar with the responsibilities of other agencies, Category 1 and Category 2 responders and the roles of their representatives that may attend operational incidents – refer to the JESIP publication, Joint Doctrine: the interoperability framework
Tactical actions

Incident commanders should:

- Use compatible terminology, abbreviations, communication systems and risk information, as agreed by their service, when working with other fire and rescue services

- Use common terms and symbols, as agreed by their service, with other agencies, Category 1 and Category 2 responders

- If there is a lack of common understanding, use plain language to communicate information

Hazard - Fire control room equipment failure

Hazard Knowledge

Fire control room equipment failure could impact on one or more of three main types of equipment:

- Call handling equipment
- Mobilising equipment
- Communications equipment

Failure could be due to hardware or software malfunctions, and will impact on the fire control room, operational resources and the fire and rescue service's ability to efficiently deal with incidents.

Control measure - Use incident typing

Control measure knowledge

Requests for fire and rescue service assistance fall broadly into two categories:
Incidents, which require urgent attendance
Non-emergency events, which require less urgent attendance

Incident typing is a process for selecting a class or category for the different incidents or events a fire and rescue service may attend. Incident types can be inputted to the mobilising system, assisting with an effective and efficient emergency call handling process.

The incident type is usually based on a hierarchical structure with multiple levels or subsets. The system may offer a list of mobilising incident reference types, and guidance on specific descriptors.

When an incident type is recorded, it allows fire control personnel to run a search for the type during a call. This can provide a structure to begin gathering the relevant information.

The information will assist in building an accurate picture of the incident, to offer fire control personnel proactive operational responses, such as predetermined attendance and action plans. Using incident typing enables consistent and sound decision-making when deploying resources to incidents.

**Predetermined attendance**

Predetermined attendance can be matched to an incident type. Resources held within the mobilising system are defined and allocated attributes that reflect roles, skills and equipment that may be required to meet the needs of an incident.

A response is calculated by assessing the type of incident and the resources required to safely intervene. This information provides the initial predetermined response which is set up within the mobilising system.

**Strategic actions**

Fire and rescue services should:

- Develop or adopt a process for classifying and recording the types of incidents and events they respond to -OPS

**Tactical actions**

Incident commanders should:

- Apply their fire and rescue service process to determine the correct type of incident or event
Control measure - Provide resilient fire control room equipment

Control measure knowledge

To prevent failure of fire control room activities, fire and rescue services need to provide resilient and appropriate fire control room equipment. The equipment needs to efficiently support the activities of the fire control room and operational personnel.

Equipment for fire control rooms falls into three main categories:

- Call handling equipment
- Mobilising equipment
- Communications equipment

Call handling equipment

All fire and rescue services are responsible for providing the means of receiving emergency calls. They also need to notify the person who is responsible for liaising with the call handling agency on the 999/112 service, referred to as the ‘999/112 liaison point’ about the equipment and the public telecommunication services used in fire control rooms.

To support all situations, fire and rescue services need to provide equipment that is capable of functioning at all times. The system should be capable of operating through unplanned events such as telephone exchange failure, power failure or hardware failure.

The number of calls being received should not prevent emergency calls from being connected to fire control personnel. Three routes should be provided for the call handling agency to contact the fire and rescue service. The secondary and tertiary routes would normally only be used if there is an unusually high level of calls, or a fault on the primary line.

Fire and rescue services should reserve primary lines exclusively for receiving 999/112 calls. The Code of Practice for the Public Emergency Call Service (PECS) exists between the emergency services and the call handling agencies to ensure good practice for a quick response to emergency calls. This code of practice is constantly under review by the 999 liaison committee, which is
Mobilising systems

The main functions of a mobilising system are to record call information and dispatch the selected resources. Secondary functions include displaying alarm conditions for the system and generating statistical information.

When an incident type and address is entered, the system will interrogate its database to match the address information. To provide fire control personnel with as much information as possible it may also search for details including:

- Risks
- Duplicate incidents
- Telephone kiosks
- Map references
- Historical data

When an address match is made fire control personnel are presented with a predetermined attendance from the address-based gazetteer. The system makes recommendations, which can be overridden.

Other functions that the system may provide include:

- The batching of calls in spate conditions
- Maintaining a log of malicious calls
- Operating and system alarms
- A training mode
- Call handling times
- The logging of incident data

The use of common coding and interface protocols can allow for systems to be integrated with databases and hardware. This can help to minimise handling of information and ensure a resilient communication system.

The mobilising system will also include an interface with remote equipment so that turnout messages can be transmitted. These messages can be sent to resources in a number of ways; for example, data messages may be sent to a computer located in a fire station or other location where resources are based, even if temporarily. Data links between the mobilising system and the station-end equipment can be provided in a number of ways, such as the wide area network and the public telecommunication services. Multiple bearers are usually employed for resilience.

In the same way that multiple bearers provide resilience against failure in communication routes,
data storage and transfer should have built-in resilience and disaster recovery.

In most instances the communications network will comprise a primary, secondary and tertiary backup bearer.

**Communications equipment**

Fire and rescue services must provide the means for receiving emergency calls. The communication systems adopted may integrate telephone and radio voice services into a common platform that may be able to:

- Provide clear audio and visual distinction between emergency and non-emergency telephone calls and radio traffic
- Queue telephony traffic and present priority calls at the top of the queue
- Indicate how long calls have been in a queue to fire control personnel
- Manage radio traffic
- Direct certain telephone call types or call priorities to certain workstations
- Redirect these calls if there are no personnel available to answer them or they are not answered within a certain time using automatic call distribution (ACD)
- Allow supervisors to audio monitor calls
- Allow supervisors to eavesdrop calls and messages
- Record and provide instant playback of calls
- Manage radio assets
- Serve more than one fire control room, for example a collaboration

If this system fails, it would cause disruption to the day to day working of the fire control room. Fire and rescue services should have in place support mechanisms to alleviate this.

**Contingency arrangements**

Fire control rooms should have contingency arrangements for capturing data, using methods such as:

- Tablets
- Standalone computers
- Paper forms

These arrangements may be required during spate conditions, or in the event of systems failure.

The contingency arrangements should enable recording of incident details, and provide information on the correct type of resource to be mobilised, along with risk information for incidents.
Direct electronic incident transfer

Highways agencies and some police forces use direct electronic incident transfer (DEIT) to electronically send key incident details to each other's mobilising systems. DEIT uses protocols to allow interoperability between mobilising systems from different manufacturers.

The main driver for using DEIT in the fire and rescue service is its potential to deliver quick, reliable information exchange between all fire control rooms as well as those of other agencies. This saves time and provides a clear understanding of the assistance required to resolve an incident. DEIT may be useful in spate conditions, assisting fire control rooms in recording incident details on their mobilising system and passing them directly into a queue on the mobilising system of the affected control, for their attention.

This approach supports the intraoperability, as described on the GOV.UK website about multi agency incident transfer (MAIT).

Fire and rescue services should liaise with other emergency responders in their area to establish a communication strategy. This should consider the use of DEIT and alternative methods, such as the use of telephones.

**Strategic actions**

Fire and rescue services should:

- Provide resilient and appropriate equipment to support fire control room activities
- Ensure there are reliable communications lines between call handling agencies and the fire control room
- Ensure there are reliable communications lines between the fire control room and relevant personnel
- Have contingency arrangements to temporarily record emergency calls and operational information
- Ensure that data captured using contingency arrangements is transferred into the normal systems once they are functioning
- Consider the use of direct electronic incident transfer (DEIT) as part of their resilient fire
control room arrangements

- Establish a communication strategy with other emergency responders in their area

**Tactical actions**

Incident commanders should:

- Have an understanding of the equipment used by the fire control room, including its functions and limitations

**Control measure - Provide multiple communications bearers**

**Control measure knowledge**

It is foreseeable that single communication lines, such as the public telecommunication services, could fail temporarily. If this happens it is vital that the call handling agency can still quickly connect an emergency call to the fire control room. It is less likely, although possible, that any alternative line of communications could also fail.

A number of possible routes of communication are available to connect a call handling agency to a fire control room. These include:

- Fixed private wire systems
- Public telephone systems
- Voice over internet provider systems
- Mobile communication systems

Some fire and rescue services have arrangements in place for calls to be handled by other emergency control rooms if the call handling agency is not able to quickly connect to fire control personnel.

In the same way as lines between call handling agencies and fire control rooms should be duplicated, it is also possible to provide multiple bearers for the mobilising system and communications system.
The mobilisation message to a fire station can be via the fire and rescue service’s wide area network, public telecommunication services, private wire or mobile network. When considering backup bearers it is good practice to spread the risk across more than one of these bearer types.

With communications to resources, which are not at a fire station, a nationally procured solution is currently used for the main communications bearer. However, data and voice traffic can also be passed by mobile or satellite networks. This again spreads the risk of failure and ensures fire and rescue services can meet their duties.

**Strategic actions**

Fire and rescue services should:

- Provide resilience by ensuring they have three communication routes into the fire control room and that at least one of these uses a separate network from the others

- Consider providing multiple bearers for mobilising systems and communications

**Tactical actions**

Incident commanders should:

- Have an understanding of the business continuity arrangements that are required for communications

**Control measure - Provide support for fire control room systems**

**Control measure knowledge**

Fire control room systems, including the supporting hardware and software, are complex and may fail. These failures may affect the ability of the fire control room to mobilise the most appropriate resource quickly.
Systems, including hardware and software, should be maintained and kept up-to-date to ensure they are consistently available for emergency call handling and resource mobilising.

Maintaining the efficiency of systems should be an ongoing process, to ensure they are performing to the highest standard and that all mobilising data displayed is current. Further support for resilience planning and control room equipment security may be considered good practice.

Training on the use of fire control room equipment may be delivered by system suppliers. This may include customised courses for essential users, and first line maintenance courses for fire control room managers so they can work alongside system engineers if a problem occurs.

As part of any contractual agreement with suppliers, fire and rescue services may consider various maintenance agreements suited to their own organisational requirements.

**Strategic actions**

Fire and rescue services should:

- Ensure they consider maintenance and upgrades as part of the initial design stages when tendering for new fire control room software and hardware
- Have arrangements in place for resolving failures of both software and hardware quickly, 24 hours a day
- Maintain and keep fire control room equipment up-to-date

**Tactical actions**

Fire control operators should:

- Identify signs and symptoms of software or hardware failure and implement procedures to inform relevant people to prevent a failure at a later point in time (fallback position)

**Control measure - Provide a critical contact number**
Control measure knowledge

For problems to be resolved quickly it is important for the call handling agency manager and the fire control room manager to be able to communicate and agree on corrective actions that can be taken. This may be necessary in the event of:

- High call volumes
- Call surges
- Extended call answering times
- Above average call handling times
- Call handling agency staffing issues
- Fire control room staffing issues

An additional contingency measure is to establish arrangements with other fire and rescue services, or other emergency services, for them to accept calls from call handling agency managers, in the event that there is no response from the critical contact number for the fire control room manager.

Strategic actions

Fire and rescue services should:

- Provide a specific number for call handling agency managers to contact fire control room managers to be used if there are emergency call handling problems
- Consider establishing contingency arrangements with other fire and rescue services for them to accept calls from call handling agency managers

Tactical actions

Incident commanders should:

- Have an understanding of the critical contact number arrangements that are required for communications
Control measure - Establish an alternative fire control facility

Control measure knowledge

In the event of needing to evacuate the main fire control room, fire and rescue services should have in place the means to continue receiving emergency calls and mobilising resources. This can be achieved by:

- Having secondary control facilities from where the fire control room function can be quickly re-established
- By entering into a contractual agreement with another organisation to temporarily take over this activity

Secondary control facilities

Mobilising systems offer different secondary control provisions, ranging from a portable laptop computer to a mobilising system and communications interface within a duplicate control on the same site as the main fire control room, or at a remote location.

Secondary control facilities should be capable of:

- Receiving emergency and other incoming and outgoing calls
- Mobilising resources
- Operating the main scheme radio

The secondary control facilities should be at a location that would not be affected by any disruption to the services provided at the main fire control room. This may require establishing the secondary control facilities with emergency telephone lines from a different exchange to those of the main fire control room.

Contractual agreements

If the functions of the fire control room are to be delivered by another organisation, entering into a formal contract should help to ensure any standards can be met. The contract might benefit from including agreed service level arrangements (SLAs) and key performance indicators (KPIs).
Strategic actions

Fire and rescue services should:

- Establish appropriate arrangements for the handling of calls, mobilising and communications in the event of needing to evacuate the fire control room

Tactical actions

Fire control operators should:

- Have an understanding of the alternative fire control room business continuity arrangements that are required for communications

Hazard - Inability to store and retrieve call and incident data

Hazard Knowledge

Completing incident data logs is 'core business' for fire and rescue service control rooms. The incident log is the means for recording or capturing all information specific to an emergency. It must accurately reflect all activities related to that incident. The information collected will consist of:

- The initial call or calls
- Emergency call handling process
- Mobilising resources and assets
- The information flow to and from the incident ground

The information contained in the log is a chronological record of an incident and will be accessed or referenced long after an incident has been closed. The information may be used for a number of reasons:

- Learning and development from a strategic, tactical or operational viewpoint
- Post-incident investigations, including for fires, accidents or potential criminality
- Sharing with other emergency responders or agencies
The communication and mobilising systems set up by fire control rooms can be used for incident data and logging. The log endorsements are the responsibility of fire control personnel and there should be regular reviews to ensure accuracy, quality and consistency in accordance with relevant legislation, guidance and protocols.

Control measure - Capture call and incident data

Control measure knowledge

Call details
All call handling details should be recorded by fire control personnel so that an accurate account is logged that will support any queries or reviews.

Instant playback recording
Communication or mobilising systems can record information when fire control personnel either transmits over a radio channel or answers a telephone call. This function should automatically deselect once the action has ceased.

Archive recording
Multi-channel continuous recording archive systems are usually standalone. They should have sufficient storage for all voice traffic to and from all fire control personnel, on the radios and telephones that are clearly identified and assigned to the fire control room.

It should be possible to interrogate the archive system by searching on:

- The date and time of a call or incident
- Fire control personnel position
- Length of call
- Incident number

This system should provide the facility to extract a specific recording and transfer it to a removable media device or in electronic format. It also should also allow the analysis of call data for report templates, call assessment and verification, and be accessible from multiple locations.
Mobilising and communication systems

A mobilising and communication system should be capable of maintaining a log for each incident, recording all times and actions associated with it. This may include:

- Automatic recording of key communications
- Recording information relevant to the incident
- Time and date stamping of critical information
- Interrogation and reporting of mobilising information
- Mobilising and communicating with operational resources

Strategic actions

Fire and rescue services should:

- Provide equipment and systems that enable fire control personnel to record and store information
- Provide equipment and systems that support the retrieval of recorded and stored information on a timely basis
- Consider providing instant recording facilities that enable instant playback to fire control personnel
- Ensure compliance with current legislation for the recording of calls and when storing other data or information relating to an incident

Tactical actions

Fire control operators should:

- Effectively use the systems provided to store and retrieve call, data and other information relating to an incident

Control measure - Follow the standard message
Control measure knowledge

Fire and rescue services should consider the use of standard message templates to ensure communications between the fire control room and the incident ground are brief. Employing a suite of standard messages will also lead to consistent reporting of incident specific details, which are understood by all and which will assist fire control room operators in recording such data accurately.

This approach should be used for all methods of transmitting information, including radios and telephones. Mobile data terminals linked to mobilising systems can send status messages in text format, but they should also use standard templates to reduce any confusion as to the type and nature of a message.

The call sign or incident commander's name should precede any message; this will assist fire control personnel to accurately identify the log to be annotated with information.

Additional messages that are passed between incident ground and the fire control room should follow predetermined content and structure.

Messages or information exchanged with other agencies should follow the guidance provided in the JESIP publication, Joint Doctrine: the interoperability framework.

Fire control personnel should be mindful that mobilisation messages may influence the behaviour of responding personnel. In particular the messages may affect a driver's perception of urgency and therefore their driving behaviour. Using standard messages may avoid or minimise this happening.

It may be necessary to provide responding personnel while driving to the incident with:

- Further relevant information
- Changes to the incident that may influence the urgency of attendance
- Changes to access routes

Strategic actions

Fire and rescue services should:
• Develop standardised message formats for use by fire control personnel and operational personnel, that support intraoperability and interoperability

• Predetermine appropriate content and structure for additional messages that are passed between the incident ground and the fire control room

• Provide a call sign or name as a prefix to any message sent to the fire control room

**Tactical actions**

Fire control operators should:

• Use the message formats provided when recording information

• Capture call signs or names as provided by the incident ground

• Consider providing additional or updated information in an appropriate manner to responding personnel, including those driving to the incident

Incident commanders should:

• Consider how mobilisation messages might influence the behaviour of responding personnel, including those driving to the incident

• Use the message formats provided to ensure information sent to the fire control room is clear and concise

⚠️ **Hazard - Delayed or inaccurate mobilising of resources**
Hazard Knowledge

The process of receiving emergency calls, identifying the correct incident location and type, and mobilising the most appropriate resources to the correct location can be delayed or inaccurate due to a number of reasons, including:

- Misrouting of calls by call handling agencies
- Failing to communicate effectively with the caller

Spike conditions and spate conditions may also present challenges for the prompt mobilising of resources to the correct location.

Misrouting of calls by call handling agencies

Calls received from call handling agencies may have been misdirected or misrouted, either to the wrong emergency service or the wrong fire and rescue service.

Once connected to a caller it can become apparent that the call has been misrouted by the call handling agency. The caller may actually require one of the other emergency services or a different fire and rescue service.

Misrouted calls occur where mobile handsets or exchange telephone coverage areas straddle two or more fire and rescue service boundaries. The call handling agency will nominate a fire and rescue service to receive the call. Mobile handsets automatically search for the strongest signal and connect to a base station; this may not necessarily be the nearest to the location of an incident being reported, especially near waterways.

Some mobile handsets provide enhanced location information when dialling 999 or 112, automatically using its built-in location capability using GPS or Wi-Fi information. This additional functionality does not affect the voice emergency call, which will be processed by fire control personnel as normal. It allows the call handling agency to compare the cell coverage from the network and, if geographically consistent, will replace the network location for any enhanced information service for emergency calls (EISEC) queries.

Emergency calls can be received direct from safety equipment, such as that fitted to vehicles (sometimes referred to as telematics), rather than being a voice call from a person requesting assistance.

Failing to communicate effectively with the caller

Emergency calls are received in various ways and sometimes under difficult situations. Apart from receiving calls from known agencies, calls from the public can be challenging if not handled effectively, which in turn can delay resources getting to an incident.
Initially, when dialling 999 or 112, callers will automatically be passed through to the call handling agency, who will then pass the call to the correct emergency service.

On connecting a call to a fire and rescue service, the call handling agency can give a verbal handover to fire control personnel, stating the origin details. Sometimes calls will be passed straight through with no verbal handover. The introduction of call line identification (CLI) or enhanced information service for emergency calls (EISEC), will give fire and rescue services information on the number and address of landline telephones or the nearest cell location for mobile phones. This information is very useful, but cannot be relied on as the exact location of an incident.

There may be communication barriers between the caller and fire control personnel, such as:

- Poor call quality, including poor reception, cutting out or background noise
- The caller not being able to hear, understand or communicate with fire control personnel
- Fire control personnel not being able to hear or understand the caller

The call could have been made by a vehicle safety system, so there is no actual caller to communicate with.

Any of these factors can make it difficult for fire control personnel to manage and extract the correct details for resources to be mobilised, and will increase call handling times.

Failing to obtain and record relevant information could impact on the ability of personnel to carry out a dynamic risk assessment prior to arrival at an incident.

**Spike conditions**

Spike conditions occur with little or no prior warning. This is when a large number of calls to the same incident are received over a short time period, such as a car fire on the motorway or a large fire with plumes of smoke that can be seen over a wide area. These calls usually stop when emergency resources are in attendance.

**Spate conditions**

Spate conditions occur where a large number of calls are being received simultaneously for incidents not at the same address. Spate conditions can go on for periods of hours or even days.

Spate conditions can sometimes be planned for; an example of this would be severe weather forecasts, which may result in incidents such as flooding.

However, this may not always be the case, for example major incidents, such as terrorist attacks.

During spate conditions, calls can be batched together and handed over to locally established
control points for prioritisation and action. If this occurs it is important that any actions are recorded in the same way as for the hard copy recording.

Control measure - Effective handling of emergency calls

Control measure knowledge

Call management processes should be followed in each emergency call. The interaction between fire control personnel and the caller can change depending on the nature of the incident, the caller's location and the predetermined response. Some mobilising systems display prepopulated questions and prompts to fire control personnel during a call. The system can link to a specific incident type list, so the correct advice is given and calls are quality assured.

Fire Service Circular 54/04 - Emergency Call Management provides national emergency call handling guidance to fire control personnel.

Fire control personnel are the first point of contact for the entire emergency side of the organisation. It is common to deal with people who are excitable, upset, distressed or confused. To obtain the required information fire control personnel should always be professional, supportive and calm.

Emergency calls are received in various ways and sometimes under extremely difficult situations. Apart from receiving calls from known agencies, calls from the public can be challenging if not handled properly, which in turn can delay the mobilisation of resources to an incident. When receiving call information, fire control personnel should record and input all details accurately into a mobilising system to allow the correct location to be displayed so that the correct resources are mobilised as quickly as possible.

Salutations

The first verbal contact with the caller plays a vital part in focusing them to provide the correct incident details as quickly as possible. Salutations support fire control personnel in instantly engaging with the caller, so that they can efficiently manage the call.

Structured approach

As calls are received in various ways it is helpful to have a structured approach to answering calls...
and taking the most important information quickly and efficiently, whilst reassuring the caller.

**Call challenging**

During any emergency call, fire control personnel should use their judgement to identify where to call challenge. Call challenge is the targeted questioning of a caller, enabling fire control personnel to determine whether the attendance requires amendment. This process may also help to assess that the call is genuine.

**Duplicate calls**

When additional calls are received regarding an incident to which an attendance has already been mobilised, fire control personnel should gather any secondary information that may help to locate the incident, or determine what further action is required. This information can be relayed to other oncoming resources.

This information should be attached to the initial call sheet to enable accurate statistical data on the number of emergency calls received for that incident.

A call may indicate that there could be a second incident in the vicinity. For example, the caller may not agree that it is the same incident, and this cannot be guaranteed from looking at the map or asking ongoing personnel via the radio. In this case a second incident should be recorded and further personnel mobilised. It is essential that personnel going to both incidents are made aware of this to avoid any confusion and ensure dynamic risk assessments are carried out.

**Filtering**

When collating call information, fire control personnel will filter out calls that may not require an attendance, in accordance with their risk management plan. These calls could include automatic fire alarm signals, people locked out of premises, incidents involving animals or flooding. Fire control personnel make an assessment and give relevant advice to the caller on the appropriate agencies or organisations to contact.

**Relay UK**

The Relay UK service allows deaf, hard of hearing, or speech-impaired people in the UK alert police, ambulance, fire, or coastguard services by either calling via a relay assistant or texting a message to 999 using the emergency SMS service. The [Relay UK website](https://www.relayservice.com) provides an explanation of how the service operates.

The call handling agency will announce to fire control personnel that the call is from a text user. Name and address details will be provided if they are available; however, details may not be available for users of some network providers.
If for any reason the relay assistant service is extremely busy, a call may arrive from the call handling agency without the relay assistant in conference.

**Call interpreting services**

In order to be able to quickly gather information, it may be necessary to use an interpreting service if fire control personnel are unable to clearly communicate with a non-English speaking caller.

The quickest solution may be to encourage the caller to pass their phone to somebody else to provide the details required. Otherwise, there are a number of agencies who provide interpreting services for a wide range of languages.

**Silent Solution calls**

*Silent Solution* allows for a mobile phone caller to dial ‘55’ to indicate that they are unable to speak. Silent calls are routed by the call handling agency to the police system, but fire control personnel should be aware of the process in case such a call is misrouted. On receipt of what could be a Silent Solution call, fire control personnel should hand the call over to the police force control room.

The Silent Solution system only applies to mobile phone calls, as it is normally possible to trace an address from a landline phone.

**Strategic actions**

Fire and rescue services should:

- Develop standard procedures for obtaining the most relevant information from callers. This will allow the nearest appropriate resource to be mobilised quickly.

- Have the facility for receiving requests for assistance via the Relay UK service

- Have arrangements in place with agencies who can provide call interpreting services

- Have processes in place for handing Silent Solution calls over to the police

**Tactical actions**

Incident commanders should:

- Obtain information from callers to support prompt and accurate mobilising of resources
Control measure knowledge

Emergency call management (ECM) is based on a set of generic emergency call prompts. These prompts enable fire control personnel to assess incidents and elicit information appropriate to the call; this informs and assists with mobilising resources.

Efficient ECM may also improve the safety of personnel and the public, as it is possible for the fire and rescue service to start to assess and manage risk while managing an emergency call.

The ECM protocol provides a generic system for the successful management of emergency calls based on the principle that an emergency call can be dealt with in three distinct stages:

- **Stage One**: primary questions, which aid the mobilising decision
- **Stage Two**: assessment questions that help build a picture of the incident, aid mobilising decisions, and assist the safety of responders and the caller
- **Stage Three**: pre-arrival advice designed to assist the safety of the caller and the public at the scene

ECM provides a framework for managing an immediate and developing risk against a set of generic incident types, by evaluating the nature of the call and determining the appropriate resources required.

Fire control room personnel will normally use call prompts when dealing with calls from members of the public, though it is recognised that on occasions more than one generic emergency call prompt may be needed.

The perception of risk may vary between individuals and groups; it is influenced by attitudes, personal experiences and knowledge. When risk based decisions are made, it is important to take account of known or acquired information and professional judgement within the framework of fire and rescue service policy and standards.

It is important that fire control personnel have the right training and information to support their role in the ECM process. When fire and rescue services are in the process of identifying learning from operational incidents, it is essential that they consider the part played by fire control personnel.
Strategic actions

Fire and rescue services should:

- Consider providing fire control personnel with emergency call prompts for gathering information
- Include the role of fire control personnel in debriefing, operational assurance and when identifying learning from operational incidents

Tactical actions

Fire control operators should:

- Obtain information from callers using emergency call prompts, or other methods

Incident commanders should:

- Use known or acquired information and professional judgement when making risk-based decisions

Control measure - Use technology to locate the caller and the incident

Control measure knowledge

Locating the caller and the incident can be assisted by using technological solutions, in addition to the caller's description of the location, enabling fire control personnel to mobilise resources more effectively.

Enhanced information service for emergency calls

Enhanced information service for emergency calls (EISEC) enables fire control personnel to confirm the caller's location. This is a critical first step in the call handling process, as if the call cuts off the
location will be unknown.

E1SEC technology, provided by call handling agencies, displays the billing address of the landline being used to make the call to the fire control room. This technology can also be used to locate a mobile phone caller, identifying the cell network from which they are calling. This is particularly useful when callers are reporting incidents on the transport network and do not know their exact location.

**Calling line identification (CLI)**

Calling line identification (CLI) allows the person receiving the call to see the caller’s number. This helps to reduce the dialogue required between fire control personnel and the caller, providing greater speed and accuracy.

**Live video streaming**

Live streaming, such as the initiative called ‘999eye’, allows video footage or images to be sent directly from a caller’s smartphone to the fire control room. GPS co-ordinates are also delivered, helping to pinpoint the exact location of the incident.

**Locating applications**

There are many applications that can help callers to provide information about their location when they require assistance. One example is the what3words application, which enables callers to provide a three word address that can be interpreted into a precise 3m2 location.

**Strategic actions**

Fire and rescue services should:

- Consider providing fire control rooms with technological solutions to locate the caller and the incident

**Tactical actions**

Incident commanders should:

- Use available technological solutions to help locate the caller and the incident
Control measure knowledge

Fire control personnel should have the knowledge to identify the capabilities and location of fire and rescue service resources and specialist equipment; this will aid them when making decisions. When fire control rooms are busy and information is being gathered from numerous sources, or multiple calls on different incident types are being handled, fire control personnel may have to redeploy resources from one incident to another after carrying out a dynamic risk assessment of each call.

Mobilising systems can display predetermined attendances from their address-based gazetteer and incident type list, to display the nearest resource using an automatic vehicle location system (AVLS). However, fire control personnel should monitor, review and update the resource availability and movement. They can also manually override the mobilising system if a certain resource has become available nearer to an incident, thereby reducing vehicle movements.

Technological solutions can be used to provide mapping information, or to mobilise fire and rescue service resources. These will assist fire control rooms in retrieving and mobilising the nearest relevant resources, after collating call handling information and the correct predetermined attendance.

Geographical information systems

Fire control rooms benefit from being able to clearly visualise caller, incident, resource, and in some cases, risk data. The map-based visualisation of information provided by geographical information systems (GIS) helps them to make more informed decisions.

The GIS functionality in mobilising systems may enable fire control personnel to attach or create risk information for specific locations. They may, for example, denote temporary road closures, planned major events, Site-Specific Risk Information (SSRI), hydrant data, tactical and COMAH plans. These can aide mobilising decisions and may also be used to provide information to personnel.

These systems may contain information regarding appropriate rendezvous points (RVPs), deployment points or strategic holding areas (SHAs), or may be used to identify appropriate places to be used where no pre-planned arrangements exist.

Automatic vehicle location systems
Many resources deployed by fire and rescue services now carry communication equipment that makes use of the global positioning system (GPS) to provide details of location. These are usually referred to as automatic resource location systems (ARLS) or automatic vehicle location systems (AVLS). This information can be displayed on the GIS in control rooms, enabling fire control personnel to confirm the locations of resources.

AVLS provides the exact location of individual fire and rescue service vehicles. This enables the mobilising system to propose the nearest available resource that is appropriate to dispatch to an incident. AVLS improves efficiency, as the mobilising system knows the exact location of resources without human intervention. It also strengthens the speed and accuracy dimension of resilience by enabling the fastest appropriate resources to be identified. The system uses a road network layer to calculate the resource times, taking into account:

- Resource capabilities or restrictions
- Current road conditions
- Whether traffic congestion is being caused by the incident

**Benefits of mobilising technology**

Benefits of using GIS and AVLS technology include the ability to:

- Confirm the location of an incident: when the location details for an incident are entered into the incident capture form on the mobilising system (either from EISEC or manually), the incident location can be displayed on the GIS. If there is any doubt or ambiguity about the information the caller is providing, fire control personnel can refer to the map on GIS to obtain information on adjacent properties, streets and landmarks. This can be used to confirm any location on any incident.
- Select deployment points: the GIS supplied with some mobilising systems enables fire control personnel to 'click' on the GIS to designate the location of an incident, rendezvous point or deployment point rather than selecting from the gazetteer. This provides useful information on larger incidents, for example general hospitals, motorways and trunk roads and gives a more precise location of incidents and information to responding personnel.
- Display the location of resources: use GIS linked to AVL software to show the location of available fire and rescue resources
- Display the availability of resources: the operational status of a resource can be displayed on the GIS. This enables fire control personnel to view the availability of resources
- Validate resource proposals: fire control personnel can use the GIS information for resource status information, which validates resources proposed by mobilising systems. This ensures that the nearest appropriate resources are dispatched to an incident. It will also provide a sense check for search engines embedded in the mobilising systems.
- Inform closing-in moves: using the operational status and location information provided by the GIS, fire control personnel make informed decisions on fire cover moves. If an area is
depleted of fire cover but resources are available on mobile duties nearby, fire control personnel may choose to send a standby vehicle to an empty station or area.

- Add risk information: the GIS functionality in mobilising systems may enable fire control personnel to attach or create risk information for specific locations. They may, for example, denote temporary road closures, planned major events, Site-Specific Risk Information (SSRI), hydrant data, tactical and COMAH plans. These can aid mobilising decisions and may also be used to provide information to personnel.

**Dynamic risk assessments**

A dynamic risk assessment should be carried out for each call received, taking into account:

- Any requirement to redeploy resources from one incident to another
- Validation of resource proposals
- Any available risk information or pre-planning arrangements
- Passing of any relevant information to personnel attending the incident
- Considering the need for any fire cover moves
- Re-evaluating initial risk assessment and updating other emergency responders as necessary

**Strategic actions**

Fire and rescue services should:

- Consider providing fire control rooms with technological solutions to mobilise fire and rescue service resources

**Tactical actions**

Incident commanders should:

- Retrieve and mobilise the relevant resources using service systems and procedures
- Designate the location of an incident and, where appropriate, rendezvous or deployment point

**Control measure - Use a premises based gazetteer**
Control measure knowledge

A premises-based gazetteer is a database containing up-to-date address details for the majority of premises, along with other information such as data relating to motorways, streets, towns, villages, and other points of interest.

If fire and rescue services decide to use a premises-based gazetteer, they should ensure it is maintained and kept up to date. This may be achieved by adopting a gazetteer that is maintained by a third party.

Access to a premises-based gazetteer may be provided to fire control rooms, and to operational personnel via mobile data terminals.

A premises-based gazetteer can:

- Allow a wide range of valuable information to be held alongside address details and points of interest that can be included in system-generated mobilising messages, such as:
  - Site-Specific Risk Information (SSRI)
  - Plans for sites or buildings
  - Action plans or special procedures for sites such as COMAH
  - Key holder or responsible person details
  - Road closures or restrictions
- Improve operational efficiency, increase mobilising accuracy and significantly contribute to strengthening the 'speed and accuracy' dimension of resilience
- Improve the accuracy of an emergency response by enabling exact address information to be relayed to personnel at the time of mobilising
- Help reduce communication errors between fire control personnel, operational personnel and other agencies
- Provide personnel with information on the risks they are likely to encounter at specific locations
- Improve intraoperability and interoperability by providing a common set of address information

Strategic actions

Fire and rescue services should:

- Consider providing a premises-based gazetteer
- Consider using the premises-based gazetteer to hold risk information for relevant locations
• Provide access to the information contained in the premises-based gazetteer to fire control personnel and relevant operational personnel

**Tactical actions**

Fire control operators should:

• Use the premises-based gazetteer to provide relevant information to personnel or other agencies

Incident commanders should:

• Receive or access relevant information provided by the premises-based gazetteer, and use the information when developing tactical plans

**Control measure - Hold contact information for specialist resources and specialist advice**

**Control measure knowledge**

**Specialist resources**

A variety of specialist resources may be required at an incident, either from within the fire and rescue service, external specialist resources or partner agencies. For further information refer to Incident command: Specialist resources.

**Specialist advice**

As it is not possible for an incident commander to have an in-depth knowledge of all types of incidents, they may need to request specialist advice from a competent person, subject matter expert (SME) or a tactical adviser (TacAd) to deal with an incident safely and effectively. For further information refer to Incident command: Specialist advice.

**Maintaining contact information**

Fire control rooms should hold and maintain the contact details for people or organisations that
are able to provide specialist resources or specialist advice, including Category 1 and Category 2 responders. Maintaining the accuracy of this information is essential to ensuring a prompt request can be made.

**Strategic actions**

Fire and rescue services should:

- Hold and maintain contact details for people or organisations who can provide specialist resources or specialist advice
- Provide fire control personnel with access to the contact details for providers of specialist resources or specialist advice

**Tactical actions**

Incident commanders should:

- Request assistance from Category 1 and 2 responders and other relevant partner agencies when required

**Hazard - Calls from or about persons at risk**

**Hazard Knowledge**

The fire control room will receive calls from or about persons at risk. There may be a threat to life due to incidents including:

- Fires in buildings, including tall buildings
- Flooding
- Building or structure collapse
- Hazardous materials
- Terrorist activity

A person at risk may either be unable to leave the hazard area because of the incident, injuries sustained, or their physical limitations. Additionally a person at risk may be able but unwilling to leave the hazard area, because they do not want to leave another person, animal or possession.
Control measure knowledge

Fire and rescue services may find it beneficial to develop a suite of survival guidance that can be provided to persons at risk. Survival guidance should be developed for the most common incident types, and hazards that are prevalent in the service’s area, as identified in risk management planning.

It is essential that a joint strategy for survival guidance is developed by the fire control room and the on-scene incident commander. Based on how the incident is developing, or on information gathered by the fire control room, the survival guidance may need to be revised. It is therefore essential that all parties exchange current information and use this to determine any changes in the survival guidance that should be provided to persons at risk.

The location of people and the information they are providing can be used by the on-scene incident commander to build a joint understanding of risk and help when developing a tactical plan. Relevant information should be passed to the incident ground; it may be appropriate to appoint a single point of contact to co-ordinate survival guidance. For more information refer to Performing rescues – Search.

It may be necessary to co-ordinate with other services or agencies that are receiving calls, based on arrangements that are in place to deal with high volumes of calls during periods of spate or spike conditions. Although advice offered to callers should be tailored to their circumstances, it should be based on a consistent approach. Fire control rooms should co-ordinate with any other control rooms that may be providing survival guidance, to ensure the information provided is suitable and up to date.

Survival guidance should be based on the incident type:

**Fires in buildings (including tall buildings)**

For example, provide appropriate guidance on current evacuation strategy including evacuate versus stay put, and the use of refuge areas.


**Flooding**
For example, isolate utilities, move valuables to upper floor, retrieve essential medication, get out of a vehicle in flood water.

https://www.rospa.com/resources/hubs/flood/

**Building or structure collapse**

For example, try to stay still, try to leave, try to make a noise to attract attention, shelter under furniture

**Hazardous materials**

For example, move uphill/upstream/upwind, stay inside building or vehicle, close windows and doors and turn off ventilation, stay away from casualties, do not drink mains water

**Terrorist activity**

For example, ‘Stay Safe’ (Run, hide, tell)

https://www.npcc.police.uk/NPCCBusinessAreas/WeaponAttacksStaySafe.aspx

**Strategic actions**

Fire and rescue services should:

- Develop a suite of survival guidance, based on common incident types and hazards that are prevalent in the service’s area, as identified in risk management planning

- Have in place arrangements to share survival guidance between agencies that may receive calls during spate or spike conditions

- Have arrangements in place to co-ordinate and update survival guidance

**Tactical actions**

Fire control operators should:

- Develop a joint strategy with the on-scene incident commander about the survival guidance to be provided to persons at risk
- Provide survival guidance to persons at risk in line with the joint strategy

- Gather information from callers that may influence the survival guidance strategy, and provide updates to the on-scene incident commander

Incident commanders should:

- Develop a joint strategy with the fire control room about the survival guidance to be provided to persons at risk

- Be aware of the survival guidance currently being provided by the fire control room to persons at risk

- Revise the survival guidance strategy throughout the incident in consultation with the fire control room

- Consider appointing a single point of contact to co-ordinate survival guidance

Hazard - Physical and mental effects on personnel alerted to respond to an incident

Hazard Knowledge

When operational personnel are alerted to respond to an incident, they may experience a range of physical and mental reactions. These reactions may:

- Impair their appraisal of the situation
- Result in errors of judgement
- Increase the likelihood of accidents

As detailed in the Health and Safety Executive (HSE) publication, Reducing error and influencing behaviour (HSG48), factors that may contribute to human error include:

- Working shift systems, working at night, or working very extended hours
- Being ‘on call’, making it difficult to plan when to sleep or having disrupted sleep
• Not having had sufficient rest before the start of a shift
• Drinking alcohol or taking some types of drugs

Fire and rescue services may wish to consider which of their employees could be affected by these factors; they could apply to fire control personnel and operational personnel.

If personnel become severely fatigued, which could be the result of spate conditions, it may lead to impaired performance on tasks that require attention, decision-making or high levels of skill. For safety-critical work the effects of fatigue can result in increased risks.

When personnel are alerted to respond to an incident, the choice of words and phrases used in mobilisation messages may cause them to make a judgement about the urgency of the incident. This may cause a stress reaction that affects their physical and mental ability to respond safely.

Personnel should also be aware of hazards that can be caused if the alert to respond distracts them from their current activity. This could be a fire and rescue service task, but could also affect other employment, leisure or domestic activities.

Control measure - Monitor the well being of personnel

Control measure knowledge

There are many regulations in the UK that exist to protect the well-being of employees, including:

• The Working Time Regulations and the Working Time Regulations (Northern Ireland) – these include topics such as shift working, rest periods and leave
• The Management of Health and Safety at Work Regulations and the Management of Health and Safety at Work Regulations (Northern Ireland) – of note, section 6 states that employers shall ensure that employees are provided with health surveillance which is appropriate to the risks to their health and safety

There are also regulations relating to driver hours, which should be considered for retained duty system (on-call) personnel. Further information on the regulations can be found at:

• GOV.UK: Drivers' hours
• nidirect: Tachograph and drivers' hours
Strategic actions

Fire and rescue services should:

- Consider and monitor the well being of personnel
- Ensure that fatigue and any regulations associated with primary employment are considered for retained duty system (on-call) personnel
- Ensure rest and recuperation periods follow protracted and arduous incidents
- Consider drug and alcohol testing

Tactical actions

Incident commanders should:

- Adhere to service policy and procedures in relation to health, fatigue, shift working, rest periods and leave

Control measure - Safe system of work: Being alerted to respond to an incident

Control measure knowledge

Individual situational awareness

Personnel should be made aware of team safety protocol, which includes maintaining individual situational awareness. The following points particularly apply if working without supervision:

- Being vigilant for personal safety and the safety of team members
- Being observant and able to identify and react safely to new or unexpected hazards

Personnel should be provided with appropriate information when they are alerted to respond to an incident, enabling them to make appropriate decisions about how they respond. For further information refer to Follow the standard message process.
Personnel should also understand how their physical and mental ability can be impaired by the transition from rest to response, so that they can take conscious actions to respond safely.

**Fire stations**

As with all working premises, fire stations must provide a safe working environment. This should take into account the effect on personnel, and others who may be on the premises, of being alerted to respond to incidents.

The installation of fire station alert systems that provide a phased increase in sound volumes and levels of illumination may be beneficial, especially for personnel who are asleep while on call.

**Dress code**

Fire and rescue services should consider having dress codes in place, based on local risk assessments. This should include arrangements for personnel who may need to respond to incidents while performing other work; the aim should be to improve their safety when in transition between roles.

When alerted to respond to an incident, it is the responsibility of personnel to wear clothing and footwear that is appropriate to the weather and environment.

**Strategic actions**

Fire and rescue services should:

- Have reliable arrangements in place to ensure that responding personnel receive the alert to respond

- Provide personnel with appropriate information when they are alerted to respond to an incident

- Consider a phased increase in sound volumes and levels of illumination in station alert systems

- Make personnel aware of the possible impact of impaired appraisal of the situation

- Provide fire stations that are a safe working environment, and which undergo regular safety inspections
• Have dress codes in place for personnel who may respond to incidents

Tactical actions

All personnel should:

• Be aware of the need to maintain individual situational awareness

• Follow dress codes

Incident commanders should:

• Wear appropriate clothing and footwear having been alerted to respond to an incident

Hazard - Driving to incidents

Hazard Knowledge

When driving to incidents, personnel may encounter hazards including:

• Other road users taking inappropriate or unhelpful actions, inactions or reactions
• Traffic conditions that hinder progress
• Pedestrians or animals in the road
• Road conditions, such as:
  ◦ Heavy rain or flooding
  ◦ Snow
  ◦ Ice
  ◦ Width or height restrictions
  ◦ Security barriers, bollards or ramps
  ◦ Obstructions, such as parked vehicles
  ◦ Steep gradients
  ◦ Driving off-road
• Hazards relating to the incident, such as:
  ◦ Debris
  ◦ Collapsed structures
Hazardous materials
Presence of other emergency response vehicles
Presence of emergency response equipment

If these hazards are not avoided or negotiated by using appropriate driving techniques, they may result in:

- Road traffic collisions
- Injuries to personnel, other emergency responders or members of the public
- Damage to vehicles or property

A number of factors may increase the likelihood of a fire and rescue service driver being involved in a road traffic collision, including:

- Perception of urgency
- Peer pressure
- Impairment due to:
  - Fatigue
  - Stress
  - Alcohol
  - Drugs

The classification of the incident or event, in addition to the choice of words and phrases used in mobilisation messages, may influence a driver's perception of urgency and therefore their driving behaviour; this could apply to personnel mobilising to a fire station, from a fire station or from elsewhere.

**Delayed or aborted travel to an incident**

If mobilised resources are delayed or unable to get to the incident, it may result in not having sufficient and appropriate personnel and equipment at the incident. It is critical in all cases of failed or delayed attendance for the fire control room to be promptly notified so that appropriate action can be taken.

Causes for delayed or aborted travel include:

- Vehicle breakdown
- Road traffic collision en route
- Being unable to locate the incident
- Weather conditions
- Road conditions

**Traffic congestion at an incident**
Any congestion at the scene of the incident may result in the delayed arrival of required fire and rescue service resources, which may impact on the development of the incident. Congestion may obstruct the arrival of resources from other agencies, such as the ambulance service vehicles, which could impact on the condition of casualties.

Control measure - Comply with road safety regulations

Control measure knowledge

The Road Traffic Act (for England, Scotland and Wales) and the Road Traffic (Northern Ireland) Order, prohibit dangerous and careless driving. This applies to fire and rescue service personnel as well as to the public.

However, statutory services and other organisations are afforded specific exemptions law to undertake their duties. The Road Traffic Regulation Act (for England, Scotland and Wales), the Road Traffic Regulation (Northern Ireland) Order, the Traffic Signs Regulations and General Directions (for England, Scotland and Wales), and the Traffic Signs Regulations (Northern Ireland), exempt emergency vehicles from:

- Observing speed limits
- Observing keep left or keep right signs
- Complying with traffic lights, including pedestrian controlled crossings

Emergency vehicle drivers may find themselves considering the contravention of signs and regulations where no exemption exists. In each case, decisions on such matters rely on the professional judgement of the personnel involved. Their decisions and actions must be justified, based on operational necessity and the practical options available.

Even where exemption exists, personnel must always give due regard to the way they drive, which should not put other road users or members of the public at a risk that cannot be justified.

When exercising the exemption to pass a red traffic light, drivers of emergency vehicles should avoid causing a member of the public to contravene the red light. The public do not have an exemption in law to contravene red traffic lights.

Only drivers who are trained to the appropriate standard are entitled to make use of exemptions. It is essential that the exemptions used are appropriate and their use in specific circumstances can
be justified.

The exemptions for emergency vehicles do not apply to personnel driving to a fire station in order to mobilise from there. This particularly applies to retained.

**Strategic actions**

Fire and rescue services must:

- Ensure on call personnel are made aware of, and conform to legal requirements when responding to fire stations on receiving an emergency call
- Regularly monitor their drivers’ entitlement to drive (Section 87(2) Road Traffic Act 1988)
- Ensure compliance with the Road Traffic Regulation Act 1984
- Ensure that an appropriate driver training and maintenance of skills programme is in place, and that drivers satisfy medical requirements

Fire and rescue services should:

- Consider the impact of the working/driving time regulations particularly with retained duty system personnel who may drive commercial vehicles in their main employment contract
- Ensure appropriate arrangements and control measures are in place to identify and control the hazards associated with lone working en route to incidents. This may apply to officers responding in cars in particular (See Working alone - Health and safety guidance on the risks of lone working)
- Ensure that all personnel are aware of the dangers of multi-tasking and its contribution to road accidents (Highway Code General Advice Para 148-150 - Driver Distraction)
- Consider working with partner agencies to provide information to members of the public on the correct actions to take when encountering responding emergency vehicles

**Tactical actions**

Fire control operators should:

- Consider how words and phrases used in mobilisation messages might influence the behaviour of responding personnel
- Ensure that relevant information and any changes at the incident that may influence the urgency of their attendance or choice of access route is communicated to attending personnel whilst en route

Incident commanders should:

- Take account of the impact of fatigue and stress when assigning operational personnel to incidents particularly during spate conditions.
All personnel should:

- Ensure that vehicles are driven in accordance with service policy and procedure
- Immediately report all road traffic collisions in accordance with service policy

Control measure - Work-related road safety

Control measure knowledge

The Health and Safety Executive (HSE) publication, *Driving at work - Managing work-related road safety*, contains information to help manage the risks to drivers as part of an organisation’s health and safety arrangements.

Effective management of work-related road safety may result in:

- Fewer injuries to drivers
- A reduced risk of work-related ill health
- Reduced stress and improved morale

Fire and rescue services should consider using standard messages for mobilisation; this approach may avoid implied urgency, which could adversely impact on the safety of personnel driving to a fire station or to an incident. For more information refer to *Follow the standard message process*.

The impact of fatigue and stress should be considered when mobilising drivers to incidents, particularly during spate conditions. Working time and driving time regulations should also be considered; this particularly relates to retained duty system (on-call) personnel who may drive commercial vehicles in their main employment.

All personnel should understand the dangers of multi-tasking while driving, and its contribution to road accidents; this may particularly apply to the lone working situation of officers driving in their vehicle to an incident.

All personnel must wear seatbelts while travelling and should avoid getting dressed or other activities which could compromise their safety.

Road safety for the public

Fire and rescue services may find it useful to provide education to members of the public on the correct actions they should take when encountering emergency vehicles on their way to an
incident. It may be appropriate to work with partner agencies to deliver this information.

**Strategic actions**

Fire and rescue services should:

- Consider HSE - [Driving at work - Managing work-related road safety](#)
- Ensure personally owned vehicles used in connection with service conform to legal requirements. See the [Road Vehicles (Construction and Use) Regulations 1986](#) and the [Highway Code - Vehicle Maintenance, Safety and Security](#)
- Ensure service vehicles conform to legal requirements including crew-cab/vehicle stowage safety (BSEN 1846)
- Ensure any retrofitting of equipment is subject to risk assessment consistent with the analysis contained in BSEN 1846 part 2
- Consider the likely effect of driver distraction from 'in vehicle' technology such as mobile phones, crew cab lighting systems, radios, computers and satellite navigation systems.

**Tactical actions**

Incident commanders should:

- Ensure personally owned vehicles used in connection with service conform to legal requirements
- Comply with service procedures regarding vehicle checks and use

**Control measure - Provide and maintain appropriate vehicles**

**Control measure knowledge**

Fire and rescue authorities need to plan for, provide and maintain appropriate vehicles and their associated equipment, for attending the anticipated range of operational incidents.

The Health and Safety Executive's publication, [Providing and using work equipment safely - a brief](#)
guide, provides an outline of the Provision and Use of Work Equipment Regulations (PUWER) and describes what an employer may need to do to protect employees in the workplace.

Further information may be found at:

- The Provision and Use of Work Equipment Regulations
- Provision and Use of Work Equipment Regulations (Northern Ireland)
- The Road Vehicles (Construction and Use) Regulations
- Motor Vehicles (Construction and Use) Regulations (Northern Ireland)
- ROSPA - Road Safety Resources for Employers
- ROSPA – Fleet Safety
- NFCC Fleet setting standards
- Heavy goods vehicle (HGV) inspection manual
- Heavy Vehicle Inspection Manual (Northern Ireland)

There are also British Standards publications that relate to fire and rescue service vehicles:

- BS EN 1846-1:2011 Firefighting and rescue service vehicles. Nomenclature and designation
- BS EN 1846-3:2013 Firefighting and rescue service vehicles. Permanently installed equipment. Safety and performance

Drivers should be aware of the potential distraction of the technology on-board vehicles, either fitted as standard or retrofitted to provide access to fire and rescue service information. This may include:

- Mobile phones
- Cab lighting systems
- Radios
- Computers, such as mobile data terminals (MDTs)
- Satellite navigation systems (satnavs)

**Strategic actions**

**Tactical actions**
There are no tactical actions associated with this control measure.

Control measure - Use local knowledge

Control measure knowledge

Technology aside, comprehensive knowledge of a station’s local area can significantly contribute to successful and efficient incident outcomes. Fire and rescue service personnel should endeavour to learn as much as possible about major hazards in the area so they are aware of the risks they may face if they are called to attend an incident and any precautions they should take.

The ability to read maps/street atlases may be key to locating an incident. Appliance drivers should have a good understanding of local road networks and be able to anticipate the effect that the incident may have on approach routes. Other local factors may affect attendance times, for example:

- local events
- activities affecting the roads
- large numbers of members of the public may be congregated
- knowledge of road traffic pinch-points
- smoke from the incident obscuring driver’s vision
- flooding making road impassable

In rural areas, firefighters should have an awareness of accessible farm tracks and the extent to which they can be used to reach isolated incidents. They should know the make-up of open land and susceptible areas, including sites of special scientific interest and they should keep themselves posted, as far as possible, about changes in road conditions due to the weather.

Strategic actions

Fire and rescue services should:

- Provide effective means to enable personnel to gain the required skills, knowledge and understanding of their potential work area, for example, topography and map reading
- Provide effective means to update personnel of any activities or changes in their area, which negatively affect attendance times.
- Provide effective systems and processes to update personnel who are en route to an incident of any additional information which could affect their attendance
Tactical actions

Incident commanders should:

- Use local knowledge, topography and map reading skills to aid navigation to an incident
- Consider delegating responsibility for navigation to suitably qualified members of the team
- Confirm details of the incident with fire control rooms to assist in locating the incident
- Identify and communicate alternative routes to the incident where appropriate

Control measure - Use effective navigation

Control measure knowledge

Benefits of using maps

A map can enable accurate planning of a journey, giving a good idea of landmarks and features passed along the route, as well as the distance to be travelled. Maps can also be extremely useful tools that can be used at a range of fire and rescue incidents. For example, maps can provide important information to aid navigation, planning, decision-making and risk management on the incident ground.

Navigation aids

Navigation aids may include:

- Satellite navigation systems
- GPS devices
- Other online mapping systems, such as Google Maps

Interoperability and major or civil emergencies

The Civil Contingencies Secretariat in the Cabinet Office, working in partnership with Ministry of Defence and Ordnance Survey, has created a set of common map symbols to promote interoperability between emergency responders.

Mapping for Emergencies is a free service provided to the emergency services whenever there is a
threat to or loss of life. Paper mapping or geographic information can be supplied to assist in responding to a major or civil emergency.

**Ordnance Survey information**

The [Ordnance Survey website](https://www.ordnancesurvey.co.uk) provides information, in written and video formats, on how to read maps and use a compass.

Their guide, [Map reading from the beginner to the advanced map reader](https://www.ordnancesurvey.co.uk/content/map-reading-from-the-beginner-to-the-advanced-reader), contains topics including:

- Map symbols and scales
- Grid references and National Grid lines
- Reading contours and relief
- Using a compass
- Navigating at night or in bad weather

**Grid references**

The Ordnance Survey provides information about using four-figure references (a single kilometre square on an Ordnance Survey map) and six-figure references (a 100 metre square in a single kilometre square on an Ordnance Survey map).

However, fire and rescue services may also use:

- 10-figure references: A one-metre square, commonly used in GPS devices
- 12-figure references: A one-metre square, commonly used in mobile data terminals (MDTs). The two letter prefix for the 100 kilometre square, as shown on the National Grid, is converted into numeric format.

**Strategic actions**

Fire and rescue services should:

- Ensure that if they use multiple grid reference formats, their personnel know how to convert between the different types of grid reference
- Ensure that personnel do not totally rely on satellite navigation systems; knowledge of the topography of the area cannot be underestimated as an important tool in achieving a speedy and timely arrival at an incident
- Record and be able to provide up-to-date information to operational personnel about local features that may cause delays when navigating to an incident. For example:
  - Level crossings
  - Toll or swing bridges
Tunnels
- Ferries and their sailing times
  - Maintain contact details for railway officials, bridge authorities, ferry companies, etc.

**Tactical actions**

Incident commanders should:

- Use local knowledge, topography and map reading skills to aid navigation to an incident
- Use all available navigation aids when locating and responding to rural or remote incidents
- Contact rail, bridge, ferry or other operators if their services and activities will affect response times

**Control measure - Consider using closed-circuit television (CCTV)**

**Control measure knowledge**

Closed-circuit television (CCTV) systems are found in many different forms with various degrees of capability. Although the type of system and its overall purpose will vary, they are mainly used to ensure the safety and security of premises, people and property.

Many city centres, motorway and road networks, individual buildings (commercial and domestic), public vehicles and even emergency fire vehicles are equipped with cameras linked to networks or recording facilities. All of them may provide valuable information for the fire and rescue service from both an operational and investigative perspective.

Systems are often monitored by a dedicated CCTV control room, which can be a useful source of information to help an incident commander build a picture of what has occurred and what is currently going on in areas that may be remote from where fire and rescue service personnel are operating.

These dedicated CCTV control rooms may be located in individual premises or sometimes remotely at other locations. They often have the capability to broadcast live or recorded imagery to multiple networked receivers who may be on a fire ground or at a remote location.
Dedicated CCTV control rooms are often able to adjust the views of individual cameras. For larger incidents or in areas with difficult or dangerous terrain such as wildfire incidents, it may be appropriate to use CCTV equipment attached to aerial vehicles such as helicopters, fixed-wing aircraft or remotely piloted aircraft.

Some CCTV may be able to provide imagery in radiation spectrums, including infrared, which could provide helpful data during incidents with poor lighting or obscured visibility.

Note: CCTV systems fitted to fire and rescue service vehicles can be useful in protecting fire and rescue service employees who may sometimes be subjected to verbal abuse, physical attacks or road traffic collisions.

**Strategic actions**

Fire and rescue services should:

- Make appropriate arrangements with CCTV system operators where necessary and, according to identified risks, to assist with operations, incident command structures and interoperability
- Develop tactical guidance and support arrangements for the hazards and actions to be taken into consideration when using CCTV systems at operational incidents
- Following the assessment of risk in the fire and rescue service area, consider using vehicle and personnel mounted cameras

**Tactical actions**

Incident commanders should:

- Access and secure CCTV footage for subsequent investigations and debriefs

---

![Control measure - Make a safe and controlled approach to the incident](image)

**Control measure knowledge**

To make safe decisions about the speed, the route and the location to attend, drivers should be
provided with accurate and timely information about the incident. Any safety concerns experienced (traffic conditions/blocked roads etc.) by attending appliances and crews should be communicated to fire control so that further attending resources are able to make a safe approach.

Incident commanders should consider the safe route for attending appliances and the availability of holding areas. This information should be communicated to fire control so that attending resources are able to make a safe approach. The potential for incident spread or a change of wind direction should be taken into account when identifying suitable holding areas and approach routes.

**Strategic actions**

Fire and rescue services should:

- Ensure appropriate mobilising. Consider dynamic mobilising to make sure that no resources are mobilised unnecessarily. See: Failure to handle emergency calls and mobilise resources in a timely manner

- Ensure appropriate arrangements are in place to ensure that personnel are provided with relevant and accurate information about the type of incident they are attending so they can make an accurate appraisal of the hazards en route to and on attendance at the incident

- Have effective arrangements in place to allow all appliances and vehicles to be positioned on the incident ground in a way that optimises their safe use and minimises risk. These measures include protection and visibility on roadways

**Tactical actions**

Incident commanders should:

- Approach the vicinity of the incident cautiously and at slow speed

- Consider using weather information from Met Office systems to establish the least hazardous routes to an incident

- Identify best access route, rendezvous point (RVP) and marshalling area and communicate to all responders

- Inform fire control of any issues relating to access, rendezvous points and marshalling areas

- Consider the impact of the transport infrastructure on safe access and egress routes
• Identify width, condition, gradient and suitability of roads, tracks and bridges for vehicles

• Consider the potential effects of incident development when positioning appliances

• Make a dynamic risk assessment of the incident development when positioning appliances

Control measure - Position fire and rescue service vehicles safely

Control measure knowledge

On arrival at the incident, fire and rescue service vehicles should be appropriately positioned to optimise their safe use and minimise risk, and to avoid congestion at the incident ground.

To minimise the risk of collisions when fire and rescue service vehicles are being moved, consider:

• Invoking speed restrictions
• Wearing high visibility clothing
• Appointing a traffic marshal (known as a ‘banksman’)
• Establishing a marshalling sector
• Communicating with other emergency responders

Fire and rescue service vehicles should be parked facing in the direction of the identified escape route, considering:

• The development of the incident
• Potential changes in weather conditions
• The use of barriers that may provide protection

Avoid parking vehicles:

• Where they may block an access, egress or escape route
• In areas of flammable vegetation or fuel
• Upslope and downwind of the fire
• Under power lines or tree canopies

It may be necessary to reposition fire and rescue service vehicles if they are at risk from the incident, for example due to firespread, flooding or collapsed structures.
**Strategic actions**

Fire and rescue services should:

- Provide suitable equipment and PPE for personnel marshalling vehicles

**Tactical actions**

Incident commanders should:

- Consider taking steps to minimise the risk of collisions
- Park fire and rescue service vehicles in an appropriate position
- Be prepared to reposition fire and rescue service vehicles if they are at risk from the incident

**Control measure knowledge**

It is important to maintain safe access, egress and escape routes for fire and rescue service vehicles at all times. The egress and escape routes in particular should be continually assessed throughout the incident to ensure that vehicles and personnel do not become trapped. It may be necessary to develop contingency plans in the event of a vehicle becoming trapped.

Personnel need to be able to access fire and rescue service vehicles throughout the incident, to obtain equipment or seek refuge.

Fire and rescue service vehicles may be compromised by operational activities or the development of the incident. For example:

- Surrounded by smoke
• Damaged by fire
• Being stranded if they are moved or positioned away from roadways, designated routes or hardstanding
• If large quantities of firefighting run-off water or foam cause the surrounding area to become unsafe for vehicles
• Collapsed structures or debris preventing their movement

If it is necessary to drive fire and rescue service vehicles off-road, personnel could be sent ahead on foot to assess ground conditions and identify an appropriate route.

Access, egress and escape routes for vehicles should take into account:

• The likely development of the incident
• The impact of operational activity
• Width, condition and gradient of roads and tracks – being aware that vehicles may 'bottom out' on undulating ground
• Width and weight limits of any bridges, taking into account that there is no requirement to mark the weight limit on bridges on private land (such as bridges not on a public highway)
• Risk of overturning when crossing steep slopes
• Saddles, re-entrants or other landscape features that may impact fire behaviour or are prone to flooding
• The type of vehicles in attendance
• Wind direction, weather conditions and visibility
• The presence of:
  ◦ People
  ◦ Personnel and equipment
  ◦ Fenced and unfenced roads and tracks
  ◦ Animals, including livestock
  ◦ One way systems
  ◦ One way systems
  ◦ Suitable turning and passing areas
  ◦ Unmetalled rural roads
  ◦ Locked gates, parked vehicles, machinery or other obstacles
  ◦ Security barriers, bollards or ramps
  ◦ Hidden obstructions, such as tree stumps or pot holes

**Strategic actions**

Fire and rescue services should:

• Provide suitable fire and rescue service vehicles
Ensure personnel are aware of the capabilities, limitations, dimensions and weight of fire and rescue service vehicles

Have arrangements in place to recover vehicles that become trapped or have broken down

**Tactical actions**

Incident commanders should:

- Identify, review and communicate suitable access, egress and escape routes for vehicles
- Mark or delineate access, egress and escape routes for vehicles where possible
- Consider the impact of the incident and operational activity on access, egress and escape routes
- Ensure fire and rescue service vehicles use appropriate lights and lighting when required
- Implement contingency plans if a vehicle becomes trapped
- Consider using personnel on foot to assess ground conditions and identify appropriate routes when driving vehicles off-road

**Hazard - Unable to gain access or entry**

**Hazard Knowledge**

There are many reasons why personnel may not be able to gain access or entry, in order to reach the incident or event. These include building features, such as:

- Doors
- Windows
- Gates
- Security features
Gaining access or entry can also apply to contexts other than buildings, including:

- Vehicles
- Private land

Being unable to gain access or entry may be time-critical, especially if there is a threat to life. The nature of the incident or event will determine the necessity and justification for gaining access or entry without the consent of the owner or occupier.

Legal limitations for gaining access or entry

The powers for fire and rescue service personnel gaining access or entry are subject to legal limitations covered by:

- Fire and Rescue Services Act
- Fire (Scotland) Act
- Fire and Rescue Services (Northern Ireland) Order

In broad terms, the powers allow for personnel to:

- Enter premises or a place, by force if necessary, without the consent of the owner or occupier of the premises or place
- Move or break into a vehicle without the consent of its owner

Exceptions to these powers apply to:

- Crown property, including Ministry of Defence sites – ‘crown immunity’ provides a set of exemptions from UK laws, including those relating to the fire and rescue service
- Diplomatic or consular premises – these are considered to be the sovereign territory of the country they represent, exempt from UK laws, including those relating to the fire and rescue service
- Merchant vessels – these are considered to be the sovereign territory of the country they are registered in, with UK laws applying only as far as the gangway of the vessel

For any incident involving one of the above exceptions, the fire and rescue service would need to be invited to assist by the authorised person.

Control measure - Gain access or entry
Control measure knowledge

Some emergency incidents may warrant gaining access or entry by force (sometimes referred to as forced entry or forcible entry) without the consent of the owner, occupier or responsible person of the premises, or the owner or keeper of the vehicle. This includes:

- Extinguishing or preventing the fire or protecting life or property, if it is reasonably believed a fire has broken out or is about to break out
- Rescuing people or protecting them from serious harm, if it is reasonably believed a road traffic collision has occurred
- Carrying out any function conferred on the fire and rescue authority, if it is reasonably believed that an emergency of another kind has occurred
- Preventing or limiting damage to property resulting from the fire and rescue service actions taken

Pre-incident planning

Knowledge and understanding of unique sites and specific components may be obtained while developing Site-Specific Risk Information (SSRI) or carrying out site inspection visits.

Familiarity with common styles of windows, doors, locks and security devices may be beneficial, and in particular those found in secure premises in the fire and rescue service area. This could include places of lawful detention or medical facilities.

Consideration should also be given to providing personnel with a form of personal identification for when they need to gain access to property or premises.

Assessing appropriate action

If rapid access or entry is needed to save a life, or prevent more serious damage or firespread, immediate action may be required. However, if the situation is assessed to be less urgent, alternative methods of access or entry, or less invasive techniques should be used to minimise or prevent damage.

Consideration should be given to the type of construction, possible entry points and the type of any security features to determine the most appropriate equipment and techniques for gaining access or entry.

If there is no alternative to gaining access or entry by force, the most effective and appropriate tools should be used to minimise damage. Equipment includes:

- Cutting, prying and striking tools
• Mechanical equipment, including lock pulling systems
• Hydraulic equipment

Before using force to gain access or entry, an appropriate risk assessment should be carried out to:

• Confirm attendance at the correct address, vehicle or location
• Determine the need, urgency and legality for the action
• Check doors, windows and any other points of access, to confirm the action is required
• Determine:
  ○ The best point of initial entry
  ○ The safest and simplest method
  ○ The most appropriate equipment
• Determine the impact on this action of any security features – refer to Gain and maintain access and egress for sites with security features for further information
• Note, and photograph if possible, any indication of criminal activity
• Consider the impact of this action on a fire-related incident – refer to Gain access or entry: Fire-related incidents for further information

The initial entry point may only need to provide temporary access to the premises; it may then be possible to create an alternative access and egress point.

Having gained access or entry using force, if the initial entry point is damaged, unsafe or restricted in any way, action should be taken to make it safe to use, or to secure alternative access and egress to and from the hazard area.

This action should be prioritised and may include simple actions such as:

• Covering or removing glass and debris resulting from using force
• Unlocking or opening a door from the inside after gaining access via a window

The location of alternative access and egress points that are established after initial entry has been made should be communicated to relevant personnel.

Post-incident considerations

If gaining access or entry has been carried out using force, consideration needs to be given to securing the premises after fire and rescue service operations have ended.

Although the security of premises or vehicles is not the legal responsibility of the fire and rescue service, reasonable steps should be taken to ensure the property or vehicle is left in a safe condition. If not present at the incident, the owner, occupier or responsible person for the property, or the owner or keeper of the vehicle, should be advised that access or entry by force has occurred.
Strategic actions

Fire and rescue services should:

- Provide appropriate equipment to enable gaining access or entry by force with minimal damage
- Consider maintaining a list of companies who can secure premises after access or entry has been gained by force

Tactical actions

Incident commanders should:

- Have a method of personal identification when responding to emergency incidents
- Select the safest and simplest method of gaining entry
- Gain access to premises causing minimal damage considering the urgency of the situation
- Consider a range of means of accessing incident including the use of specialist vehicles
- Consider carefully removing metal security screens considering weight and fixing methods

Incident commanders must:

- Ensure compliance with the powers of entry granted by the Fire and Rescue Services Act and devolved equivalent

Incident commanders may:

- Enter premises or a place, by force if necessary, without the consent of the owner or occupier of the premises:
  - if they reasonably believe an emergency to have occurred
  - if they reasonably believe a fire to have broken out or to be about to break out
  - for the purpose of extinguishing or preventing the fire or protecting life or property
- NB Does not apply to Crown property (including ministry of defence) and diplomatic or consular premises
- NB The Master of the ship (or delegated officer) of a merchant vessel must give permission to board
- Move or break into a vehicle without the consent of its owner
Hazard - Failing to manage health, safety and welfare

Hazard Knowledge

All employers have a duty to look after the health, safety and welfare of their employees at work and to ensure their operations do not adversely affect the health and safety of other people. This duty is qualified by the test of what is reasonably practicable and therefore not all risks need to be eliminated. Even when all reasonably practicable precautions have been taken to deal with foreseeable risks, harm could still occur.

Employees also have a duty to take reasonable care of their own health and safety, and that of any other person, and to co-operate with their employer in protecting people from harm. Individuals should operate as an effective team member within safe systems of work and be competent and knowledgeable about hazard and risk; this will give personnel sufficient knowledge to carry out risk assessments.

For further information refer to Corporate guidance for operational activity.

The majority of National Operational Guidance provides hazard and control measure information regarding specific activities or contexts. However, any working environment may present hazards including:

- Uneven or slippery surfaces
- Steep gradients or undulating ground
- Unstable ground
- Unguarded edges
- Working at height - refer to guidance for Subsurface, height, structure and confined spaces
- Working near water or other liquids
- Irrespirable atmospheres
- Adverse weather conditions
- Electricity
- Sharp objects including:
  - Glass
  - Metal
  - Hypodermic needles
  - Blades
  - Plant thorns or needles
- Falling objects
• Obstructions
• Allergens including:
  ‒ Plants
  ‒ Food
• Ultraviolet (UV) exposure
• Hot objects or surfaces
• Munitions

Hazards that are encountered in the working environment may increase the risk of physical injuries to personnel, or adverse reactions, including:

• Musculoskeletal injuries
• Cuts, bruises or abrasions
• Fractures or amputations
• Crush injuries
• Head injuries
• Puncture wounds
• Drowning
• Asphyxia
• Burns or scalds
• Anaphylaxis

Personnel may encounter higher levels of risk from physical hazards than could be anticipated. Without carrying out an appropriate risk assessment it is not be possible to establish the correct control measures to mitigate the risks.

Hazards may outweigh or potentially outweigh the benefits of action; it may be appropriate to adopt a 'defensive mode' until appropriate and sufficient control measures have been implemented.

Further information is provided in the Health and Safety Executive (HSE) publication Striking the balance between operational and health and safety duties in the Fire and Rescue Service, HSE 2010

Health, safety and welfare should be considered throughout the incident, even at its closing stages. The identification of hazards, assessment of risk and implementation of control measures should continue until fire and rescue service resources have left the incident ground.

**Exposure of personnel to infectious diseases**

Exposure of personnel to infectious diseases may occur in conjunction with some physical injuries. For further information refer to Infectious diseases and Monitor personnel exposed to infectious diseases.
Control measure knowledge

Fire and rescue authorities must have in place adequate plans, policies, risk assessments and procedures to protect their employees and others from harm. Risk assessments of operational activity based on risk management planning must be carried out to identify significant hazards that may be present at incidents, identify appropriate control measures, set out safe systems of work, equipment, competences and training.

Strategic risk assessments should consider human factors; people can make mistakes, which may lead to an accident or an escalation of the incident. Fire and rescue services should develop systems that reduce the likelihood or impact of individual failure impacting safety.

Pre-planning for the safety of personnel should consider topics such as:

- Awareness, risk factors and how injuries can occur
- Carrying out safer working, for example manual handling techniques, or hearing protection for noise
- Appropriate systems of work for the individual's tasks and environment
- Using mechanical aids, additional equipment, or protective equipment
- Practical work to allow a trainer to identify and put right anything not practised safely, for example:
  - Initial training application
  - Maintenance of skills
  - Competence or training exercises
- Core, fitness or preventative techniques, such as prevention of injury awareness

For further information refer to:

- Management of Health and Safety at Work Regulations
- Management of Health and Safety at Work Regulations (Northern Ireland)

Strategic actions

Fire and rescue services should:
• Carry out risk assessments to identify foreseeable hazards within their area and identify control measures that eliminate or reduce risk

• Pre-plan for the safety of operational personnel

Tactical actions

Incident commanders should:

• Implement appropriate control measures based on service risk assessment, procedures and training

• Identify personnel who may require additional training on safety measures

Control measure - Engineering controls

Control measure knowledge

Risk assessments should consider whether engineering controls are suitable and appropriate to reduce risk at operational incidents. Where risk assessments identify that engineering controls are appropriate, fire and rescue services should put in place arrangements to ensure such vehicles and equipment can be made available to personnel. Examples of engineering controls include:

• Lifting straps or slings for casualties or animal rescue
• Aerial appliances, to avoid working from ladders for prolonged periods

Other organisations may have equipment that could prove beneficial at incidents. This equipment would need to be identified and competent personnel required to operate it. The presence of unfamiliar vehicles or equipment can create additional hazards, as other organisations may not be used to working with fire and rescue service personnel. Therefore, close monitoring of their operation, and detailed briefings on what is required, will be necessary from the incident commander or sector commander.

Establishing arrangements and carrying out joint training with other fire and rescue services or agencies, who may provide specialist vehicles or equipment, should help to improve the response at an incident.
Fire and rescue authorities need to ensure that work equipment is constructed or adapted to be suitable for the purpose for which it is used or provided. Vehicles and equipment should be maintained in a safe condition and only operated by people who have received adequate information, instruction and training.

Legislation on this topic is included in:

- **Provision and Use of Work Equipment Regulations** (commonly referred to as PUWER)
- **Provision and Use of Work Equipment Regulations (Northern Ireland)**

### Strategic actions

Fire and rescue services should:

- Consider the provision of or access to engineering controls that can assist with manual handling tasks
- Have arrangements for the request and mobilisation of specialist vehicles and equipment
- Ensure personnel are aware of resources that they can request from their own and neighbouring fire and rescue services and partner agencies
- Consider joint training with other fire and rescue services and agencies for the use of specialist vehicles and equipment

### Tactical actions

Incident commanders should:

- Consider using appropriate vehicles, equipment or other engineering controls to reduce risk
- Consider requesting appropriate resources from other fire and rescue services and agencies

Control measure - Consider training and
Control measure knowledge

Where local risk assessments identify the need to provide employees with information, instruction and training, fire and rescue services should have systems to ensure acquisition, application and maintenance of this knowledge, skills and understanding. Information should include an awareness of common hazards, potential consequences and control measures to be implemented to minimise the risk of harm to emergency responders and others at operational incidents.

Fire and rescue services should consider the required competence of personnel, supervisors, managers and commanders as part of the risk management process for reasonably foreseeable operational incidents.

Fire and rescue services should consider the training and competence of:

- Personnel
- Supervisors, managers and commanders
- Specialist roles and teams
- Tactical advisers
- Other agencies operating under the safety management of the fire and rescue services

Fire and rescue services should determine if it is necessary to limit exposure of personnel to hazards if training has not been delivered or if competence cannot be demonstrated. This may be by design, for example limiting activities based on risk management planning and providing specialist resources where necessary, or as a result of failing to achieve competence.

Information regarding limits of exposure based on lack of training or competence should be made clear to all personnel and available alternatives, their capabilities, equipment and how to request them communicated. This may include personnel from other agencies; for further information refer to Specialist resources.

Indicating the degree of competence using markings or specialist personal protective equipment (PPE) can make it easier for incident commanders to identify appropriate personnel for certain roles, for example identifying personnel who have recently completed training.

Strategic actions

Fire and rescue services should:
• Develop service policy and procedures for the acquisition, application and maintenance of operational competence

• Establish clear guidelines on the limits of competence of personnel and alternative arrangements

• Develop procedures that ensure effective workplace assessment takes place and that it provides objective, constructive feedback immediately after the activity and that a suitable record is maintained

• Establish clear guidelines about the restrictions placed on personnel who have failed to demonstrate competence, and provide them to personnel and their managers

• Provide personnel with information about the markings used by their own and neighbouring fire and rescue services to indicate competence

**Tactical actions**

Incident commanders should:

• Consider the competence of individuals and teams when allocating tasks
• Monitor the performance of personnel and where necessary modify plans to available competencies
• Consider the competence of other agencies operating under the safety management of the incident commander
• Be aware of the markings used to indicate competences within their own and neighbouring fire and rescue services

**Control measure - Assess risk from lone working**

**Control measure knowledge**

Legislation requires employers to consider carefully and then deal with any health and safety risks
for people working alone. Decisions to allow lone working at an operational incident should be based on the known levels of the individual's competence and the anticipated risks of the incident ground.

The Health and Safety Executive (HSE) publication *Working alone: Health and safety guidance on the risks of lone working*, states that employers have a duty to assess risks to lone workers and take steps to avoid or control risks where necessary. This must include:

- Involving personnel when considering potential risks and their control measures
- Taking steps to ensure risks are removed where possible, or putting in place control measures

Risk assessment should help to determine the right level of supervision. There are some high-risk activities where at least one other person would need to be present, including:

- Working in a confined space, where a supervisor may need to be present, along with someone dedicated to the rescue role
- Working at or near to exposed live electricity conductors

**Strategic actions**

Fire and rescue services should:

- Ensure that policies relating to lone working include the operational environment

**Tactical actions**

Incident commanders should:

- Carry out a risk assessment before allowing lone working
- Be aware that some tasks may be too difficult or dangerous to be carried out by unaccompanied personnel
- In situations when a risk assessment shows it is not possible for the task to be conducted safely by lone working, address that risk by making arrangements to provide help or back-up

Control measure - Establish safe systems of work
Control measure knowledge

This control measure should be read in conjunction with Situational awareness and Safety management.

To establish appropriate safe systems of work, all personnel should have an awareness of the environment they are working in. If they encounter unexpected or unforeseen situations they should be equipped to identify hazards, make an individual assessment of risk and take appropriate action.

It is the responsibility of the incident commander to gain a detailed awareness of the incident and the hazards that are present. Dynamic risk assessment is the process by which an incident commander in a fast-moving situation will identify the hazards and risks to safety.

The incident commander should provide information about the hazards and risk to the safety of everyone involved in or responding to the incident, and the control measures and safe systems of work that have been put in place. This information should be communicated in an appropriate and timely manner to relevant personnel and other emergency responders.

Safety-critical information should always include:

- Location of the hazard area
- Details of the hazards and their location
- Details of access, egress and escape routes

Other information will be dependent on the type, size and development of an incident. Further details are provided within the guidance for specific incident types or for specific hazards.

**Strategic actions**

Fire and rescue services should:

- Provide information, instruction and training to all personnel on common hazards in the operational environment

**Tactical actions**

Incident commanders should:

- Gather information from a variety of sources to gain accurate situational awareness and understanding
Ensure that everyone on the incident ground is fully briefed on the current hazards, specific risks and control measures including other agencies and organisations

Control measure - Hierarchy of control

Control measure knowledge

This control measure is based on information provided by the Health and Safety Executive about the hierarchy of control.

Risks should be reduced to the lowest reasonably practicable level by taking preventative measures, in order of priority - the hierarchy of control. These measures are in the order that should be followed when planning to reduce the risks that have been identified at the incident. They should be considered in this order, rather than implementing the easiest measure.

1. Elimination
2. Substitution
3. Engineering controls
4. Administrative controls
5. Personal protective clothes and equipment

Elimination

The task or activity should be redesigned so that the hazard is removed or eliminated. This is the most effective measure that can be implemented to control risk, and should always be considered once a hazard has been identified. In an operational environment it may not be possible to completely remove or eliminate a hazard, perhaps due to the environment or the need to take immediate life-saving actions.

Substitution

Replace the procedure with a less hazardous one.

Engineering controls

Use equipment or other measures to provide protection, for example physical barriers or machine guards.
Administrative controls

Identify and implement the procedures that will provide a safe working environment. This could include reducing the time or frequency that personnel are exposed to hazards, putting appropriate cordon controls in place or implementing hygiene arrangements.

Personal protective clothes and equipment

Only after all the previous measures have been tried and found ineffective in controlling risks to a reasonably practicable level, should personal protective equipment (PPE) be used. Personnel should be trained in the function and limitation of each item of PPE. PPE may also include using items such as fall arrest equipment.

Refer to Personal protective equipment for more information.

Strategic actions

Fire and rescue services should:

- Consider appropriate means to record relevant information

Tactical actions

Incident commanders should:

- Reduce risk by implementing appropriate control measures
- Manage risk in the physical environment using a hierarchy of control approach
- Establish a safe working environment for fire crews and other responders

Control measure - Personal protective equipment

Control measure knowledge

Personal protective equipment (PPE) is used to protect personnel against health or safety risks. It includes items such as:
- Helmets
- Gloves
- Eye protection
- High-visibility clothing
- Safety footwear

Equipment such as chemical protective clothing (CPC), respiratory protective equipment (RPE) and safety harnesses are also types of PPE and are covered in more detail elsewhere in guidance. PPE should be regarded as a last resort if risks to health and safety cannot be adequately controlled in other ways. To avoid unsuitable selection, fire and rescue service risk assessments should define the specific PPE required for an activity.

If more than one item of PPE is to be worn, they must be compatible with each other and adequately control the risks when used together. PPE must be maintained in good working order and properly stored when not in use. Personnel should use PPE in accordance with the training they have received and report any loss, damage or faults.

During protracted incidents, or when making up equipment, personnel may be inclined to relax PPE; incident commanders should be vigilant and base any decision to downgrade the need for PPE on an assessment of residual risk.

If PPE has become dirty, contaminated or damaged it may not perform to the standard required by the appropriate specification. PPE should only be worn if it has been subject to appropriate cleaning, decontamination and testing processes.

For legislative requirements, refer to:

- Personal Protective Equipment at Work Regulations
- Personal Protective Equipment at Work Regulations (Northern Ireland)

For further information on respiratory protective equipment refer to Respiratory Protective Equipment

**Strategic actions**

Fire and rescue services must:

- Provide employees with suitable personal protective equipment that fits the wearer correctly and adequately controls identified risks
- Ensure that personal protective equipment and respiratory protective equipment worn simultaneously is compatible and does not negatively impact other safety measures
• Provide appropriate accommodation for personal protective equipment when not in use

Fire and rescue services should:

• Specify the level of PPE for hazards identified through risk assessment and communicate to personnel

• Have suitable arrangements for the cleaning and maintenance of PPE in accordance with the manufacturer’s instructions

• Ensure that there are suitable arrangements to support the replenishment of PPE

Tactical actions

Incident commanders should:

• Ensure that all personnel wear the level of PPE identified by service risk assessments, procedures and training

• Ensure the appropriate PPE is maintained throughout the incident based on an assessment of risk

• Check the condition and serviceability of PPE when assessing operational readiness for redeployment

• Recognise the potential contamination of equipment and PPE and follow service procedures

Control measure - Respiratory protective equipment
Control measure knowledge

Respiratory protective equipment (RPE) is a type of personal protective equipment designed to protect the wearer from breathing in harmful substances, or from oxygen-deficient atmospheres, when other controls are either not possible or are insufficient on their own.

The use of RPE allows efficient, effective and safe working practices to be adopted at incidents of all sizes and type where an irreparable atmosphere presents a hazard to personnel. There are two main types of RPE; respirators and breathing apparatus (BA).

Further information about the use of RPE can be found in the British Standards Institution (BSI) publication, **ISO/TS 16975-1:2016 Respiratory protective devices – Selection, use and maintenance: Establishing and implementing a respiratory protective device programme**.

**Respirators**

Respirators are filtering devices that remove contaminants from the air being breathed in; non-powered respirators rely on the wearer breathing to draw air through the filter. Respirators are not suitable for use in oxygen-deficient atmospheres.

**Breathing apparatus**

Breathing apparatus (BA) requires a supply of breathing-quality air from an independent source such as an air cylinder. Breathing apparatus (BA) enables firefighters to breathe safely in otherwise irreparable atmospheres. The use of BA as a control measures is likely to be applied as part of the incident plan for any incident involving:

- Smoke and fire gases
- Working in confined spaces
- Hazardous materials including:
  - Asphyxiants
  - Dusts
  - Toxic, flammable or explosive substances

**Airlines**

Airline equipment supplies air to the wearer from a cylinder that is located remotely from them. The technical procedures for the specific airline equipment in use should be followed. Airline equipment should only be used by trained and competent personnel. It be appropriately used and maintained, to avoid the air supply to BA wearers being compromised.

Following an appropriate risk assessment, it may be decided to use airline equipment to provide...
breathing apparatus capability. Its use may be appropriate:

- If an extended air supply to self-contained BA wearers is required
- If use of self-contained BA is unsuitable
- At incidents in the open, where airlines are used to provide a breathable atmosphere without the weight of a self-contained BA set
- For specialist operations that involve restricted access

Although the use of airline equipment reduces the overall weight carried by a BA wearer and can provide a limitless supply of air, the physiological limitations of the BA wearer should be considered when airline equipment is used.

**Face mask fit testing**

If RPE is used, it must be able to provide adequate protection for individual wearers; RPE cannot protect the wearer if it leaks.

Face mask fit testing is a method of checking that a tight-fitting face piece matches the wearer’s facial features and seals adequately to their face. A face mask fit test should be carried out as part of the initial selection of the RPE and it is good practice to ensure testing is repeated on a regular basis. Further detail on face mask fit testing is provided in the Breathing apparatus foundation material.

Further information is contained in the Health and Safety Executive's publications:

- [Respiratory protective equipment at work: A practical guide (HSG53)](#)
- [Guidance on respiratory protective equipment (RPE) fit testing (INDG479)](#)

**Maintenance**

Maintenance is a requirement for all RPE, except for disposable (single use) RPE, and should be carried out by properly trained personnel. Thorough maintenance, examination and tests should be carried out at regular intervals in accordance with the manufacturer's instructions.

**Breathing apparatus foundation material**

The breathing apparatus foundation material provides the procedures underpinning the planning, use, and command and control of BA. It should also assist fire and rescue services with:

- Developing safe systems of work when deploying BA
- Managing BA operations
- Testing and maintenance of BA equipment
- Defining roles and responsibilities for BA
- Developing BA training
Readiness of BA wearers
Pre-planning for intraoperability and interoperability

**Strategic actions**

Fire and rescue services must:

- Provide employees with suitable RPE that fits the wearer correctly and adequately controls identified risks
- Ensure that personal RPE worn simultaneously is compatible and does not negatively impact other safety measures

Fire and rescue services should:

- Specify the type of RPE required for hazards identified through risk assessment and communicate to personnel
- Have policies, procedures and guidance for all personnel on the safe use and management of respiratory protective equipment at incidents
- Provide suitable information, instruction and training to all personnel who may be required to wear respiratory protective equipment
- Have suitable arrangements for the provision, testing and maintenance of respiratory protective equipment

**Tactical actions**

Incident commanders should:

- Ensure that all personnel wear the type of RPE identified by service risk assessments, procedures and training
- Implement BA entry control procedures appropriate to the level of risk identified
Control measure knowledge

Adopting appropriate welfare arrangements at operational incidents will assist with the safe and effective management of personnel and provide them with welfare support, whether physical or psychological. By having effective arrangements for the management of welfare and physical wellbeing at incidents, fire and rescue services will support several key elements of the safe person principles.

Consideration should be given to work rotation, rest, recovery and reliefs taking account of activities undertaken and weather conditions. At protracted incidents provision should be made for suitable sanitary conveniences and hygiene facilities; an adequate supply of drinking water should be provided for all personnel.

See: Workplace (Health, Safety and Welfare) Regulations 1992

Strategic actions

Fire and rescue services should:

- Make suitable arrangements to provide welfare for personnel at protracted operational incidents including shelter, drinking water, hygiene and sanitary conveniences.

Tactical actions

Incident commanders should:

- Consider the effects of geography on equipment logistics, casualties and crew welfare
- Provide first aid equipment to crews deployed to areas with no immediate medical assistance
- Consider requesting facilities for the welfare of crews deployed at protracted incidents

Control measure - Post incident health
Control measure knowledge

Health surveillance allows for early identification of ill health and helps identify any corrective action needed. Regulations exist for workplace exposure to:

- Noise
- Vibration
- Solvents
- Fumes
- Dusts
- Biological agents
- Other substances hazardous to health
- Compressed air

Regulations include:

- Control of Noise at Work Regulations
- Control of Noise at Work Regulations (Northern Ireland)
- Control of Substances Hazardous to Health Regulations
- Control of Substances Hazardous to Health Regulations (Northern Ireland)
- Control of Asbestos Regulations
- Control of Asbestos Regulations (Northern Ireland)
- Control of Lead at Work Regulations
- Control of Lead at Work Regulations (Northern Ireland)
- Ionising Radiations Regulations
- Ionising Radiations Regulations (Northern Ireland)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (Northern Ireland)

Appropriately trained and competent health professionals should carry out appropriate health surveillance, especially where there is a regulatory requirement to monitor the health of employees.

Employers should also provide for the effective monitoring of mental health and well-being of all employees to ensure that any exposure to psychological hazards can be monitored. Critical incident stress management procedures should be considered as part of an intervention to minimise the impact of traumatic incidents on individuals, and to reduce work-related stress.
All employees, should follow service protocols to report any symptoms of mental or physical health illness they experience.

Employees with supervisory or managerial responsibilities should follow service protocols for raising concerns about the mental or physical well-being of individuals.

**Strategic actions**

Fire and rescue services must:

- Have procedures for health surveillance following exposure of personnel to substances where there is a legal requirement to do so

Fire and rescue services should:

- Establish arrangements with appropriately trained and competent healthcare professionals to carry out health surveillance
- Have procedures for identifying employees who require mental or physical health surveillance

**Tactical actions**

Incident commanders should:

- Follow service protocols for post incident health surveillance and monitoring

---

**Hazard - Working near water or other liquids**
Hazard Knowledge

For the purposes of this guidance ‘working near water or other liquids’ is considered to be working within three metres. This distance may be adjusted following a risk assessment.

Working near water, or other liquids, presents a hazard; personnel could accidentally enter the water or liquid, with the risk of:

- Submersion
- Entanglement
- Cold water shock
- Hypothermia
- Contamination
- Drowning

The risk of accidental entry into the water or liquid may depend upon the nature of operational activity being performed, and the necessity to work in the area.

The environment surrounding the water or liquid may increase the risk of accidental entry. The factors that may affect this include:

- Underfoot conditions
- Stability of the surrounding area
- Gradient
- Lack of guarding or barriers
- Weather conditions
- Visibility

For more information on personnel working on or in water, see National Operational Guidance: Water rescue and flooding – Working environment: Water rescue and flooding.

For more information on operational activity in the context of docks, harbours, marinas, canals and rivers, see National Operational Guidance: Transport

Control measure - Asses the risk of working near water or other liquids
Control measure knowledge

A risk assessment when personnel are working near water or other liquids should take into account:

- The necessity of working near water or other liquids
- The required proximity to the water or other liquids
- The number of personnel required
- The operational activity that will take place
- The likelihood of accidental entry due to:
  - Underfoot conditions
  - Stability of the surrounding area
  - Gradient
  - Lack of guarding or barriers
  - Weather conditions
  - Visibility
- The level of danger presented by the water or other liquids, such as:
  - Depth
  - Temperature
  - Type of liquid, including potential contaminants
  - Speed of flow

Strategic actions

Fire and rescue services should:

- Make risk information regarding the presence of water, or other liquids, available to operational personnel

Tactical actions

Incident commanders should:

- Avoid working near water or other liquids where possible
- Commit the minimum number of personnel to the hazard area when working near water or other liquids
• Assess the risk of accidental entry into water or other liquids

Control measure - Manage the risk of working near water or other liquids

Control measure knowledge

Where possible the risk of accidentally entering water or other liquids should be mitigated by using:

• Cordons

• Suitable existing or improvised guarding or barriers

• Work restraint systems

Personnel working near water or other liquids should wear personal floatation devices that are compatible with existing personal protective equipment (PPE). The wearing of fire helmets when working near water or other liquids should take into account the operational activity being performed and the risk of accidental entry into water.

For control measures for working on or in water see National Operational Guidance: Water rescue and flooding.

For information regarding work restraints see National Operational Guidance: Subsurface, height, structures and confined spaces- Unguarded edges.

Strategic actions

Fire and rescue services should:

• Provide suitable PPE and equipment for working near water or other liquids
Tactical actions

Incident commanders should:

- Identify and communicate the presence of water or other liquids to all responders

- Ensure that personnel operate on the safe side of suitable existing or improvised guarding or barriers near water or other liquids

- Assess hydrology and status of water or other liquids - depth, temperature, type of liquid, speed of flow

- Investigate the possibility of rising waters and increased flow from tides, flooding, sluice gates

- Use work restraint or fall arrest systems for personnel working near water or other liquids

- Appoint a safety officer to monitor the hazard presented by water or other liquids

- Ensure that personnel wear suitable PPE and personal flotation devices when working near water or other liquids

Hazard - Physiological stress

Hazard Knowledge

Physiological stress is the body’s response to a stressor, such as an environmental condition or a stimulus. Examples of physiological stress are fatigue, dehydration, heat illness and hypothermia.

Fatigue is a subjective feeling of tiredness which has a gradual onset; it can have physical or mental causes and may significantly affect a person’s ability to perform tasks.

Dehydration occurs when the body loses more fluid than it takes in; minerals in the body become unbalanced, which affects the way that it functions.
The ability of personnel to operate effectively may be affected by physiological stress. This could be caused by:

- The environment and weather conditions
- The task they are undertaking
- Their personal protective equipment
- Their condition prior to being mobilised, including illness and physical condition

### Control measure - Reduce exposure

### Control measure knowledge

If it is not possible to fully eliminate the hazard, then exposure should be reduced to limit the risk as far as reasonably practicable. Examples of ways in which this can be achieved include:

- Reducing the amount of time spent in the risk area and avoid repeated exposure
- Increasing the distance from the hazard

### Strategic actions

Fire and rescue services should:

- Identify from pre-planning any risks that can be reduced by reduced exposure and communicate to personnel

### Tactical actions

Incident commanders should:

- Consider implementing control measures that reduce the exposure of responders to a hazard
- Keep the number of people exposed to the hazard at a minimum and reduce time of exposure through crew rotation
Control measure knowledge

Personnel attending an incident will often need to be deployed as teams and not as crews. These teams should be of an appropriate size of to carry out the task and sufficient to allow task rotation. Where possible personnel should share tasks, roles and functions and where appropriate should manage team and task rotation.

Strategic actions

Fire and rescue services should:

- Develop tactical guidance and support arrangements for the hazards and actions to be taken when managing the appropriate deployment of resources

Tactical actions

Incident commanders should:

- Keep the number of people exposed to the hazard at a minimum and reduce time of exposure through personnel rotation

Hazard - Heat illness in personnel

Hazard Knowledge

Heat illness covers a spectrum of conditions including heat exhaustion and heat stroke. In practice, it is difficult to distinguish between these conditions and they may coexist. For the purposes of this guidance the term heat illness refers to those individuals who become incapacitated as a result of a rise in core body temperature.
Heat illness in personnel can be caused or exacerbated by:

- Overexertion
- Exposure to high temperatures
- Humidity
- Inappropriate clothing or personal protective equipment (PPE)
- Dehydration
- Medical conditions or medication

In addition to the hazards presented by heat illnesses, the conditions may adversely affect personnel in terms of decision making, or impairing the manual dexterity and physical ability of personnel. Because of this, personnel should self-monitor and be monitored for these conditions.

**Heat stress**

Heat stress is a mild form of heat illness that can progress to more serious conditions such as heat exhaustion and heat stroke. Symptoms can include:

- Fatigue
- Heat syncope (fainting)
- Swelling of feet and ankles
- Heat cramps

**Heat exhaustion**

Heat exhaustion symptoms are mainly caused by the loss of fluids and body salts. Symptoms can include:

- Headache, dizziness, nausea, vomiting and irregular pulse
- Hypotension, sweating, muscle pain, weakness and cramps

**Heat stroke**

Heat stroke is the body's response to an elevated core body temperature. If left untreated heat stroke can be life-threatening. The condition can have a sudden onset with no warning, or may be preceded by the symptoms of heat exhaustion. Symptoms can include:

- Headaches, extreme fatigue, fainting, facial flushing
- Vomiting and diarrhoea
- Hot, dry skin with sweating being present in 50% of cases
- Irregular pulse, hypotension, irregular breathing
- Seizures
- Rhabdomyolysis – the breakdown of muscle cells causing the release of toxins into the blood
For further information on heat illness see:

- Health and Safety Executive: Temperature in the workplace
- Heat illness and cold injury: prevention and management (JSP 539)

Control measure - Prevent and manage heat illness in personnel

**Control measure knowledge**

If heat illness is suspected, medical advice should be sought.

The effects of heat stress can be prevented or managed by:

- Moving the person to a cool environment
- Removing personal protective equipment (PPE)
- Providing external cooling
- Rehydration by drinking cool, still water

Faints (syncope) may be prevented if the person lies down with their legs raised above the level of their head.

See National Operational Guidance: Performing rescues – Failure to assess, identify and treat life-threatening problems of the casualty

**Strategic actions**

Fire and rescue services should:

- Ensure that personnel have access to the means for preventing or managing heat illness

**Tactical actions**

Incident commanders should:
• Request medical advice if heat illness is suspected

• Provide personnel with the means to prevent and manage heat illness

---

Hazard - Hypothermia in personnel

Hazard Knowledge

Allowing the core body temperature to fall below 37°C, even by as little as 2°C, may lead to hypothermia. It may be moderate or severe depending on the degree of cooling. Hypothermia can be a life-threatening condition.

Hypothermia in personnel can be caused or exacerbated by:

• Exposure to cold temperatures
• Immersion in water
• Physical exhaustion
• Adverse weather conditions
• Inappropriate clothing or personal protective equipment (PPE)
• Dehydration
• Medical conditions or blood loss

The symptoms of moderate hypothermia include:

• The person saying they feel very cold
• Uncontrolled shivering
• The person feeling cold to the touch, with cold and pale hands and feet
• Loss of manual dexterity
• Mild confusion, disorientation or irritability
• The person possibly denying having any problem and rejecting assistance

The symptoms of severe hypothermia include:

• Slurred speech and an apathetic, confused and irrational state
• Lips turning blue
• Reduced consciousness, with a slow, faint or irregular pulse
• Shivering stopping
Control measure knowledge

If hypothermia is suspected, medical advice should be sought.

If the person is conscious and able to, they should be encouraged to keep moving. They should be given warm drinks or high energy food.

The effects of hypothermia can be prevented or managed by:

- Moving the person to a warmer environment
- If they cannot be moved indoors, providing some insulation for them to lie on
- Replacing wet clothing with dry clothes, making sure their head is covered
- Covering the person with blankets

For further information see Performing rescues – Failure to assess, identify and treat life-threatening problems of the casualty

Strategic actions

Fire and rescue services should:

- Ensure that personnel have access to means to prevent or manage hypothermia

Tactical actions

Incident commanders should:

- Request medical assistance if hypothermia is suspected
- Provide personnel with the means to prevent and manage hypothermia
Hazard Knowledge

Adverse weather conditions or microclimates can affect operations and the health and safety of personnel. This may:

- Affect decision-making
- Impact upon morale
- Reduce manual dexterity
- Impair incident ground communications
- Impair visibility (link to Hazard Reduced visibility)
- Impair or prevent the use of equipment, such as:
  - Aerial appliances
  - Radios
  - Working at height equipment

Wind may cause smoke, dust or other hazardous materials to travel into the incident ground. It may also dislodge loose objects, causing them to fall from height

Control measure - Assess current and forecast weather conditions

Control measure knowledge

Forecast weather conditions should be obtained and monitored as they can have a negative effect on operations and the health and safety of personnel.

This information should be assessed, along with any microclimate that could be produced by the specific location and its topography. Current and forecast weather conditions should be used to inform the tactical planning and risk assessment of an incident.
Strategic actions

Fire and rescue services should:

- Provide personnel with access to meteorological information, such as for example, the Met Office's FireMet in 'hazard manager' for predicting weather conditions

- Ensure that strategies are in place to enable timely communication of forecast weather conditions to operational personnel

Tactical actions

Incident commanders should:

- Access past, present and future weather information from sources such as the Met Office

- Request and review up-to-date weather forecasts

Hazard - Lightning

Hazard Knowledge

Lightning may strike structures or objects and cause a collapse or start a fire. Personnel working in exposed or unsheltered locations may be at risk of lightning strike during thunderstorms. Working at height or on, in or near water may increase this risk.

- Direct strike
- Through the ground
- Side flash - the lightning hits another object and arcs
- Ground strike – the lightning strikes the ground then travels through it

Tall metal structures, such as transmission towers, can conduct lightning to ground or lead to arcing from the object to equipment or personnel. Carrying conductive equipment may increase the risk of lightning strike.
Control measure - Safe system of work: Lightning

Control measure knowledge

Weather warnings for lightning may provide fire and rescue services with advance information about when lightning may occur.

If lightning is a hazard the safety of personnel should be based on an incident ground risk assessment. Working where lightning strike is a risk should be avoided if possible, and the following activities may need to be restricted or stopped:

- Working at height
- Working on, in or near water
- Working in the open
- Working near or on tall structures
- Carrying or pitching ladders

Even when undertaking lifesaving activities, a cordon of 10m around tall structures, such as transmission towers, is recommended.

Strategic actions

Fire and rescue services should:

- Provide personnel with access to weather warnings for lightning

Tactical actions

Incident commanders should:

- Consider stopping activities where there is a risk of lightning strike
- Consider seeking appropriate shelter where there is a risk of lightning strike
- Avoid working in open areas, at height, near tall structures or on, in or near water where there is a risk of lightning strike
Control and restrict the use of conductive equipment such as ladders

Hazard - Noise

Hazard Knowledge

Fire and rescue service personnel may need to work in noisy environments; noise could be produced by:

- On-site machinery
- Vehicles
- Activated alarms or warning systems
- Fire and rescue service activities, including the use of equipment
- Munitions
- Explosions
- Crowds of people
- Music

The hazards may include:

- Hearing loss
- Impaired communication
- Impaired operational awareness

Hearing loss

Noise-induced hearing loss is caused by prolonged exposure to excessive levels of noise – for example, in noisy workplaces, or while listening to loud music. It can also be caused by extremely loud bursts of sound such as gunshots and explosions that can lead to some damage within the ear structures. The effects of noise-induced hearing loss may not be noticed until years after exposure to loud noise. Some people experience tinnitus as the first sign that their hearing has been damaged by noise.

Further information about hearing health can be found on the Action on Hearing Loss website.

Impaired communication

When working in a noisy environment, normal communication methods may not be sufficient. The noise level may impact on emergency evacuation signals and affect the ability to hear an activated
automatic distress signal unit (ADSU).

**Impaired operational awareness**

The noise level may make it difficult to hear distress calls from casualties when performing rescues. It may also impair the ability of personnel to hear moving vehicles or machinery, or even sounds from a moving or collapsing structure.

---

### Control measure - Reduce exposure to noise

---

### Control measure knowledge

Under The Control of Noise at Work Regulations and The Control of Noise at Work Regulations (Northern Ireland), noise in the working environment should be eliminated or reduced. If this is not feasible, personnel should be removed from the source of the noise, or be provided with personal hearing protectors that are appropriate to the environment or activity.

Pre-planning may identify likely sources of noise and appropriate control measures that reduce exposure to noise.

### Strategic actions

Fire and rescue services must:

- Assess and identify measures to eliminate or reduce risk from exposure to noise in the workplace

Fire and rescue services should:

- Provide personnel with appropriate hearing protectors

- Ensure information about noise hazards is recorded in Site-Specific Risk Information

### Tactical actions

Incident commanders should:
• Reduce prolonged exposure to the source of noise

• Increase the distance of personnel from the source of the noise

• Ensure personnel wear appropriate hearing protectors

---

**Control measure - Isolate the source of noise**

---

**Control measure knowledge**

It may be possible to isolate the source of noise, if it is being produced by on-site machinery, vehicles or fire and rescue service equipment. Decisions to isolate these sources of noise may require liaison with the responsible person, occupants or site engineers.

Alarms or warning systems will need to be managed appropriately; silencing them may be detrimental to activities such as evacuation. Decisions to isolate these sources of noise may require liaison with on-site staff, with reference to Site-Specific Risk Information (SSRI) if appropriate.

**Strategic actions**

Fire and rescue services should:

• Record information about alarms or warning systems in the Site-Specific Risk Information (SSRI)

**Tactical actions**

Incident commanders should:

• Consider isolating sources of noise

• Consider requesting that alarms or warning systems are silenced
Control measure - Safe system of work: Noisy environments

Control measure knowledge

If it is not possible to reduce or isolate the source of noise, safe systems of work should be implemented to ensure:

- Communication between personnel is maintained
- Personnel do not rely on audible cues or information, especially for emergency evacuation or tactical withdrawal

Strategic actions

Fire and rescue services should:

- Consider providing equipment to assist with alternative methods of communication

Tactical actions

Incident commanders should:

- Consider using alternative methods of communication

- Consider implementing appropriate methods to activate the emergency evacuation or tactical withdrawal of personnel

Hazard - Vibration

Hazard Knowledge

Hand-arm vibration comes from the use of handheld power tools and can result in significant ill
Whole-body vibration is transmitted through the seat or feet of employees who drive mobile machines, or other work vehicles, over rough and uneven surfaces as a main part of their job. Large shocks and jolts may cause health risks including back pain.

For further information refer to:

- Control of Vibration at Work Regulations
- Control of Vibration at Work Regulations (Northern Ireland)

Control measure - Reduce risk from exposure to vibration

Control measure knowledge

The assessment of the risk to health created by vibration at the workplace is a legal requirement and the regulations establish exposure limit values and action values. Preplanning should consider the magnitude, type and duration of exposure, manufacturer's information and working conditions such as low temperatures. In a dynamic operational environment incident commanders should apply a hierarchy of control approach to minimising risk from hand arm and whole body vibration.

Strategic actions

Fire and rescue services should:

- Assess and identify measures to eliminate or reduce risk from exposure to hand-arm vibration
- Carry out risk assessments to identify foreseeable hazards within their area and identify control measures that eliminate or reduce risk
- Consider the provision of or access to engineering controls that can assist with manual handling tasks
- Develop service policy and procedures for the acquisition, application and maintenance of operational competence
Tactical actions

Incident commanders should:

- Ensure that all personnel follow service procedures when operating equipment
- Consider rotating crews using equipment for long periods of time

Hazard - Vibration from vehicles or machinery

Hazard Knowledge

The movement or use of vehicles or machinery near to an incident may cause vibration, which can:

- Worsen the condition of casualties
- Cause structures, above or below ground level, to become unstable
- Cause excavations or natural features to become unstable
- Worsen instability in structures, excavations or natural features
- Distress animals
- Impact on fire and rescue service activities

Vehicles that may be near to an incident include:

- On-site vehicles
- Emergency services vehicles
- Rail vehicles
- Road vehicles

Machinery that may be near to an incident includes:

- On-site machinery
- Emergency services machinery and equipment

Control measure - Minimise the impact of vibration from vehicles or machinery
Control measure knowledge

The movement or use of vehicles or machinery should be controlled, if vibration from them may worsen the incident. Control may be applied by moving the vehicles or machinery away from the hazard area, or by limiting their use. This will need to take into account the necessity or benefits of using the vehicles or machinery.

If it is not possible to eliminate the movement or use of vehicles or machinery, the impact of vibration from them should be monitored throughout the incident. This should include:

- Monitoring the impact on casualties
- Monitoring structures, excavations or natural features for signs of collapse
- Monitoring the distress of animals
- Monitoring the impact on fire and rescue service activities

Strategic actions

Tactical actions

There are no tactical actions associated with this control measure.

Hazard - Manual handling

Hazard Knowledge

Manual handling relates to moving items by lifting, lowering, carrying, pushing or pulling.

For personnel, manual handling may include moving:

- Firefighting and rescue equipment such as:
  - Ladders
  - Hoses
  - Tools
  - Machinery
- Casualties, in particular bariatric casualties – see Manual handling: Casualties and Bariatric
The weight of the item is an important factor, but many other factors can create a risk of injury, for example:

- The frequency of picking up or carrying an item
- The distance the item is being carried
- The location of the item when it is picked up or put down
- Twisting, bending or stretching while carrying out a task
- The posture adopted while carrying out a task

Manual handling injuries are part of a wider group of musculoskeletal disorders (MSDs). MSDs include any injury, damage or disorder of the joints or other tissues in the upper or lower limbs, or the back. Recent or existing injuries are additional factors in the development of MSDs.

In controlled environments these risks can be reduced by making loads smaller or lighter, and organising the environment to make tasks less stressful on joints and muscles.

**Control measure - Adopt correct manual handling techniques**

---

**Control measure knowledge**

All employers must comply with the risk assessment requirements set out in:

- [The Management of Health and Safety at Work Regulations](#)
- [The Management of Health and Safety at Work Regulations (Northern Ireland)](#)

The requirement to carry out a risk assessment for manual handling tasks is contained in:

- [The Manual Handling Operations Regulations](#)
- [The Manual Handling Operations Regulations (Northern Ireland)](#)

All employees must make full use of any safe system of manual handling their employer puts in place.
Strategic actions

Fire and rescue services must:

- Make a suitable and sufficient assessment of manual handling operations that involve a risk of injury
- Ensure all personnel are aware of the duty to carry out a risk assessment on manual handling tasks
- Ensure all personnel are aware of their responsibility to use the safe system of manual handling provided

Fire and rescue services should:

- Carry out risk assessments to identify foreseeable hazards within their area and identify control measures that eliminate or reduce risk
- Consider the provision of or access to engineering controls that can assist with manual handling tasks

Tactical actions

All personnel should:

- Consider the task, individual capabilities, load and environment (TILE) when carrying out risk assessments for manual handling
- Consider using machinery or other equipment to assist with manual handling risk

Incident commanders should:

- Consider task rotation when personnel are carrying out manual handling tasks
- Request additional or specialist resources to assist with manual handling tasks
- Ensure personnel adopt the provided safe system of manual handling
Hazard - Physical injuries from animals

Hazard Knowledge

Animals may be encountered at any incident; their presence and behaviour may have an impact on the incident, or on the emergency responders in attendance. Animals may present hazards such as:

- Obstructing emergency responders
- Physical injuries, including:
  - Crush injuries
  - Puncture wounds
  - Cuts, bruises and abrasions
  - Stings or bites, which could be venomous or cause anaphylaxis

For information regarding diseases and infections caused by animals, such as zoonoses, see Diseases and infections.

For information regarding rescuing or evacuating animals see National Operational Guidance: Incidents involving animals.

Control measure - Avoid, contain or control animals

Control measure knowledge

Unless attending an incidents involving animals, personnel should try to avoid any animals present.

If animals cannot be avoided, they may need to be contained or controlled in order to keep them away from members of the public, the incident and emergency responders. It may be necessary to seek specialist advice or assistance for dealing with animals.

The activities of emergency responders, such using lights and generating noise, may increase the stress response of animals. Movements of emergency responders, equipment and vehicles should
be kept to a minimum in the vicinity of animals.

Guidance for dealing with animals is contained in the National Operational Guidance: Incidents involving animals, in particular under the following control measures:

- **Minimise the stress response of the animal**

- **Specialist resources: Animal incidents**

- **Physical control or restraint of the animal**

- **Chemical restraint of the animal**

- **Contain the animal**

**Strategic actions**

Fire and rescue services should:

- Ensure that information about animals, where held in a permanent location, is included in Site-Specific Risk Information (SSRI)

**Tactical actions**

Incident commanders should:

- Identify and communicate the presence of animals, and any associated hazards, to emergency responders and the public

- Minimise the stress response of animals

- Seek specialist advice or assistance for dealing with animals

- Avoid, contain or control animals if necessary
• Ensure personnel do not touch or handle animals unless unavoidable

• Consider contingency arrangements if personnel may become isolated in areas where animals present a risk

• Avoid unnecessary contact with animals

• Seek specialist advice about antidotes, antivenom or specialist treatment

Hazard - Infectious diseases

Hazard Knowledge

Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another. Zoonotic diseases are infectious diseases of animals that can cause disease when transmitted to humans.

If biological hazards (biohazards) are or may be present, the incident should be reclassified as a hazardous materials incident; the guidance for Hazardous materials should be applied.

Operational activity may bring personnel into contact with disease and infection, including:

• Infection or irritation to skin, eyes or respiratory system
• Bacterial infection including:
  ○ Gastrointestinal diseases
  ○ Tetanus
• Viral infection including:
  ○ Blood borne viruses such as HIV and hepatitis
  ○ Rabies
• Zoonoses including:
  ○ Leptospirosis (Weil’s disease)
  ○ Lyme disease

Diseases and infections may be carried by:

• Body fluids
• Animals, including their faeces and urine
• Insect bites and stings
• Contaminated water including:
  ◦ Stagnant water
  ◦ Sewage
  ◦ Flood water

Transmission of infectious diseases while working can occur via:

• Inhalation, for example by:
  ◦ Breathing in infectious aerosols or droplets, including respiratory discharges or contaminated dust or spray
• Absorption, for example by:
  ◦ Blood or other body fluids entering the body via the eye or other mucous membranes
  ◦ Microorganisms directly or indirectly entering the body via broken skin
• Ingestion, for example by:
  ◦ Putting contaminated hands, fingers, or objects such as pens or cigarettes into the mouth
• Injection, for example by:
  ◦ A skin-penetrating injury from a contaminated needle or other sharp object
  ◦ A bite or sting from an infected animal or insect

For more information see:

• [GOV.UK: Health protection - Infectious diseases](#)
• [World Health Organization (WHO) – Infectious diseases](#)

![Control measure - Monitor personnel exposed to diseases and infections](#)

**Control measure knowledge**

Post-incident health monitoring may help to identify personnel exposed to diseases and infections. Some diseases and infections can have extended incubation periods; this should be considered when determining appropriate monitoring durations.

Monitoring allows for appropriate medical intervention and may assist with identifying appropriate control measures to reduce the impact of future events.
An appropriate healthcare professional should be notified if personnel have potentially been exposed to diseases or infections. They will be able to advise on the appropriate treatment or monitoring, based on the type of incident and level of exposure.

**Strategic actions**

Fire and rescue services should:

- Carry out post-incident health monitoring
- Establish access to an appropriate healthcare professional for advice on treatment or monitoring of personnel

**Tactical actions**

Incident commanders should:

- Record details of personnel who have potentially been exposed to diseases or infections, and notify the appropriate healthcare professional
- Ensure personnel understand the need to report any exposure to potential diseases or infections

### Control measure - Manage the risk from infectious diseases

### Control measure knowledge

If the incident has been classified as hazardous materials, due to the confirmed or suspected presence of biological hazards (biohazards), the relevant Hazardous materials control measures should be applied.

It may be appropriate to record the presence of biological hazards (biohazards) in Site-Specific Risk Information (SSRI).
Reports detailing local and national trends of notifiable infectious diseases (NOIDs) are published. Further information is available at [GOV.UK: Notifiable diseases and causative organisms](https://www.gov.uk).

When dealing with the confirmed or suspected presence of infectious diseases, fire and rescue services should manage the risks to personnel using:

- Vaccinations
- Personal protection
- Hygiene arrangements

Some personnel could have existing health conditions that could be impacted by exposure to infectious diseases. For example, allergic reactions that could result in anaphylactic shock. Personnel should report any known conditions to the health department of their fire and rescue service, and to the incident commander.

For more information refer to the Health and Safety Executive (HSE) publication, [Infection at work: controlling the risk](https://www.gov.uk).

**Vaccinations**

Vaccinations can immunise personnel against some diseases that they may be exposed to during operational activity. The activity of personnel, working environments and the prevalence of diseases, if known, in their area will determine which vaccinations are appropriate.

**Personal protection**

The type of personal protection used should be determined by the anticipated transmission method of infectious diseases:

- **Inhalation:**
  - Good ventilation
  - Respiratory protective equipment (RPE) appropriate to the hazard
- **Absorption:**
  - Avoid skin contact with the hazard
  - Personal protective equipment (PPE) that prevents contact including protective or disposable gloves and eye protection
  - Strict hygiene procedures
- **Ingestion:**
  - Avoid eating, drinking, smoking and vaping
- **Injection:**
  - Avoidance or isolation of the cause of injection
  - Personal protective equipment (PPE) that provides protection from the cause of injection
Consider the use of a sharps container for the disposal of clinical waste

**Hygiene arrangements**

Good hygiene practices can reduce the transmission of infectious diseases and infection. This may include:

- Welfare facilities
- Antibacterial wash or wipes

Personnel should avoid eating, drinking, smoking or vaping before effective hygiene or decontamination procedures have been completed.

**Strategic actions**

Fire and rescue services should:

- Record specific information on biological hazards on SSRIs where appropriate
- Seek specialist advice to determine an appropriate vaccination plan
- Vaccinate personnel against infection and disease where appropriate
- Ensure that suitable hygiene and decontamination arrangements are available to personnel
- Have suitable clinical waste disposal procedures, including use of sharps containers

**Tactical actions**

Incident commanders should:

- Identify potential sources of infectious diseases
- Request sufficient resources to enable hygiene or decontamination procedures to be implemented
- Ensure that personnel refrain from eating, drinking, smoking or vaping prior to completing hygiene or decontamination procedures
All personnel should:

- Ensure open wounds, cuts and grazes are covered by a waterproof dressing

Hazard - Psychological hazards

Hazard Knowledge

Fire and rescue service personnel need to be able to function, while being aware of stress and fatigue. They need to communicate, make critical decisions and process information. They should be able to understand how both stress and fatigue affect these processes.

Fire and rescue services should develop a culture, awareness and common understanding of psychological hazards and have appropriate post-incident processes in place. These should be supported by occupational health arrangements, such as identifying, reporting, monitoring and self-reporting measures and arrangements.

The possible impact of critical incidents on employees can be minimised through raising awareness of the causes and potential effects of the pressure and stressors that may occur at operational incidents. Incident commanders should be aware of the effect that traumatic incidents can have on themselves and others in the short-term and long-term.

At the incident ground, it may be possible to reduce the impact of traumatic incidents on personnel by:

- Minimising the number of personnel exposed to the scene
- Erecting screens to restrict the view of the scene – for further information refer to Performing rescues: Maintain the privacy and dignity of the casualty
- Seeking assistance from other appropriate agencies

Consideration should be given to the provision of critical incident debrief procedures following incidents that involve exposure to traumatic scenes.

Fire control personnel can also be impacted by operational incidents; this could be due to taking traumatic or distressing calls. They could also be directly exposed to information about injuries or deaths of members of the public or emergency responders.

Therefore, appropriate support mechanisms should be put in place for any employee who has been affected by an incident, not only those who attended the incident.
Control measure knowledge

The possible impact of critical incidents on employees can be minimised through raising awareness of the causes and potential effects of the pressure and stressors that may occur at operational incidents. These should be reflected in occupational health policies and operational policy development. Incident commanders should be aware of the effect that traumatic incidents can have on themselves and others in both the short and long term.

Consideration should be given to the provision of critical incident debrief procedures following incidents that involve exposure to traumatic scenes.

Strategic actions

Fire and rescue services should:

- Carry out risk assessments to identify foreseeable hazards within their area and identify control measures that eliminate or reduce risk

- Consider the provision of or access to engineering controls that can assist with manual handling tasks

- Develop service policy and procedures for the acquisition, application and maintenance of operational competence

Tactical actions

Incident commanders should:

- Handover responsibility for traumatic incidents to an appropriate agency where the fire
service does not have primacy

- Minimise number of personnel exposed to traumatic scenes where possible
- Erect screens to restrict the view of traumatic scenes
- Instigate service procedures for the support of firefighters exposed to traumatic scenes

Hazard - People

Hazard Knowledge

One of the main reasons fire and rescue services attend incidents is to reduce or prevent harm to people. As well as the risk of direct harm from the hazards of the incident, there is a potential risk to the dignity and wellbeing of people affected by the incident. Overcrowding, weather conditions, lack of appropriate clothing or shelter may present hazards to people who have been rescued, evacuated or are gathered at the scene.

The physical or psychological impacts of an incident may not be immediately obvious; people who leave the scene may need to be contacted at a later date for assessment or treatment.

However, the behaviour and volume of people may also have an impact on the incident, or on the emergency responders in attendance. The hazards people may present at operational incidents include:

- Obstruction of emergency responders
- Uncontrolled evacuation
- Unpredictable, aggressive, violent or illegal behaviour
- The uncontrolled spread of information, which could lead to unwanted behaviour
- Putting themselves at risk, or encouraging others to put themselves at risk
- Physical injury to themselves or others

People may become indirectly involved, which could be due to:

- Concern about those involved in the incident
- Political or societal motivation
- A desire to assist with the incident
- A wish to observe the incident or the activity of emergency responders

The behaviour of those directly involved in the incident may be influenced by their:
Familiarity with the location
Awareness about the need to evacuate
Willingness or ability to evacuate
Ability to hear or understand evacuation instructions
Understanding of evacuation procedures
Impairment by alcohol or drugs
Perception of the incident and emergency response

Transport incidents

Fire and rescue services should consider the disruption to transport networks, and to the people using them, when dealing with incidents. Closing highways, runways, railways, ports or docks can have far-reaching effects.

If people are held within the transport network, including stations or hubs, there can be an impact on public welfare. Unless they are kept informed, people may decide to self-evacuate, potentially along roadways or train tracks.

Prolonged closures may lead to a build-up of passengers or traffic at the scene. This overcrowding can have an impact on the emergency response and place members of the public at risk.

The impact of the incident on people not involved in the incident should be considered. Closing transport hubs, isolating power, stopping trains or closing airspace may have implications at other locations. Border control and repatriation may need to be considered if disruption is caused to international transport networks.

Hazardous materials

Failure to remove or isolate people from the scene of contamination and point of release of hazardous materials will significantly increase the impact upon their health, and the likelihood of further contamination occurring. Contamination of people may occur via their unprotected respiratory system.

Control measure - Evacuation and shelter

Control measure knowledge

‘Evacuation’ is the immediate and urgent movement of people away from a threatened or existing
hazard. The response of people to emergencies can vary from inaction to panic; a key factor in maintaining control and order when conducting evacuation is communication.

The need to evacuate or shelter people could be due to:

- An act of terrorism
- The actual or threatened release of hazardous substances
- Fire
- An unstable or collapsed structure
- The risk of explosion
- Severe weather, including widespread flooding
- Environmental contamination
- Transport incidents

When producing Site-Specific Risk Information (SSRI) and developing incident plans, the evacuation or shelter of large numbers of people should be considered. Planning should be carried out with statutory resilience forums who may be able to mobilise resources to assist during the emergency phase of an incident.

Personnel at the incident and in the fire control room should develop a joint understanding of risk when determining if there is a need for evacuation, shelter in place or ‘stay put’. To achieve this effectively, robust communications should be established and maintained throughout the incident. For further information see: Have a communications strategy.

The decision to evacuate, and the size of the area to be evacuated, should be based on a joint understanding of risk which is agreed by the Strategic Co-ordinating Group (SCG). As a decision to evacuate is likely to affect multiple agencies, they should all be consulted if possible. If this is not possible, all agencies involved should be informed as quickly as possible.

The police are normally the lead agency for evacuation, and are likely to make a decision to evacuate in consultation with the local authorities. However, the police can only recommend evacuation and have no power to force responsible adults to leave their homes, with the exception of evacuation of the inner cordon for a terrorist incident.

In any decision about whether or not to evacuate, the overriding priority should be the safety of the public and emergency responders. It is possible that evacuating people to the open may put them at greater risk; buildings may provide protection against some types of risks and the public may be safer seeking shelter in a suitable building.

Unless they are provided with specific instructions, people are likely to follow the most obvious or familiar egress route; this could result in a stampede, evacuating towards the hazard, or result in people being trampled.
Evacuation time comprises the time taken for individuals to move towards an exit, plus the time taken before movement is initiated – the time taken to recognise there is a danger and to decide on the most appropriate course of action. Communication and sharing of information should aim to enhance the effectiveness of evacuation. For further information see Warn, inform and advise people.

For further information, see the Cabinet Office publication, *Understanding Crowd Behaviours: Supporting Evidence*.

Once implemented the evacuation plan should be regularly reviewed, to take into account:

- The development of the incident
- Changes in weather conditions
- Information gathered from emergency responders and the public
- The effectiveness or impact of the evacuation

**Fires in buildings**

Taller or larger buildings are likely to have scalable evacuation plans, with some occupants remaining in relatively safe areas of the building during firefighting operations.

To prevent access, egress and escape routes becoming compromised, compartmentation and suitable routes for firefighting teams should be identified and secured at the earliest opportunity. Building signage should not be relied on for suitable access and egress routes.

Access and egress routes should be suitably and sufficiently protected by:

- Using personnel with appropriate firefighting media
- Making use of the building's fixed installations
- Maintaining the structure and integrity of fire-protected areas

The primary objective of an evacuation strategy is to ensure that in the event of a fire, the occupants of a building can reach a place of ultimate safety outside the building. The evacuation procedures are an essential part of the overall fire strategy. There are two basic categories of evacuation procedure:

**Total evacuation**

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

- Simultaneous evacuation
  - The default approach, where it is unreasonable to expect the occupants to remain in the building for a prolonged time when there is a fire
Phased evacuation

- A common approach adopted in high-rise premises where the storeys are separated by fire-resisting construction, or in certain atrium buildings
- The first people to be evacuated are all those on the storey most immediately affected by the fire, and those on other storeys with impaired ability to evacuate, unless their personal emergency evacuation plan (PEEP) has determined otherwise
- The remaining storeys are then evacuated, usually two storeys at a time, at phased intervals

Progressive evacuation

Progressive evacuation of the occupants, initially to a place of relative safety within the building where they can remain or, if necessary, complete the evacuation to ultimate safety as part of a managed system. There are two categories of progressive evacuation:

- Progressive horizontal evacuation
  - The process of evacuating people into an adjoining fire compartment on the same level, from which they can later evacuate to a place of ultimate safety
- Zoned evacuation
  - A common approach adopted in large retail developments, where an operational loss could be created by evacuating a large building for a relatively small fire
  - A zoned evacuation is achieved by moving the occupants away from the affected zone to an adjacent zone; for example, in a shopping centre where the occupants would be moved to the adjacent smoke control zone while the fire-affected zone was brought under control

Occupant evacuation or escape strategies

Occupant evacuation or escape strategies will vary; the responsible person should be able to provide information about them. Some buildings have a policy to simultaneously evacuate when hearing an alarm, others maintain a ‘stay put’ or ‘defend in place’ policy and some adopt a vertical phased approach.

The ‘stay put’ policy, as detailed in the Local Government Association’s Fire safety in purpose-built blocks of flats may be considered appropriate, based on the levels of fire resistance for compartment walls and floors. The use of occupant evacuation or escape strategies that are based on ‘stay put’ or ‘defend in place’ policies should be kept under review throughout the incident.

When determining the evacuation strategy the following factors should be considered and reviewed to maintain the safety of occupants:

- That there is a clear passageway to all evacuation routes
- The risks to the occupants exiting along firefighting access routes
• Exposure to potential hazards
• Whether any occupants require assistance to evacuate
• If the evacuation routes are clearly marked, and are as short and direct as possible
• Whether there are enough exits and routes available for all people to evacuate
• If emergency doors open easily in the direction of evacuation
• Whether there is emergency lighting provided where needed
• If training has taken place about using the evacuation routes
• Whether a safe assembly point has been designated and communicated

Evacuation of medical facilities

Medical facilities are likely to contain patients, visitors and staff. These people will have varying levels of familiarity with their surroundings and the evacuation procedures. It is also likely that some people will be impaired by physical or mental disabilities.

Fire and rescue service personnel may be able to provide assistance to evacuate non-ambulant patients.

Medical facilities may have more than one evacuation strategy. This may include simultaneous evacuation, where people immediately go to a designated assembly point, ‘horizontal phased’ or ‘vertical phased’ evacuation.

Methods of horizontal phased evacuation are particularly useful when dealing with seriously ill or infirm people, who may require life support equipment, medical gases or strict environmental conditions for their wellbeing.

Hazardous materials

The aim should be to reduce the impact of a hazardous material on members of the public not originally involved in the incident, but who could potentially become involved as the material moves from the incident. This may be achieved by implementing an evacuation or shelter in place plan.

An assessment about which course of action is correct for protecting the public should be made by a hazardous materials adviser (HMA), and provided to the incident commander. For further information about the information that will influence this assessment see:

• Hazardous materials - Assess impact of release or spill
• Hazardous materials – Safe and controlled approach: Hazardous materials

For information regarding contaminated casualties, see Hazardous materials - Controlled
Strategic actions

Fire and rescue services should:

- Liaise and consult with developers, owners, occupiers and responsible persons of buildings, to provide expert safety advice and to develop tactical guidance and support arrangements for the associated hazards and actions to take to confirm the occupier's evacuation policy or strategy.

- Ensure that personnel have access to pre-determined evacuation plans for buildings or locations that have them.

- Develop and test emergency plans and support arrangements for evacuating large numbers of affected people, in conjunction with statutory resilience forums and partner agencies.

- Participate in pre-planning and exercises for evacuating medical facilities.

- Provide on-scene mapping facilities to enable risk areas to be identified and actions to be planned and documented.

- Consider liaising with partner agencies who have air monitoring capabilities, public communication responsibilities and specialist knowledge on issues relating to public health.

Tactical actions

Incident commanders should:

- Determine whether people should be advised to evacuate, shelter in place or 'stay put'.

- Establish communication arrangements to allow information to be gathered from and passed to fire control rooms.

- Identify the most appropriate evacuation plan and record rationale for decision.

- Ascertaining the availability of pre-arranged evacuation strategies and policies.
When evacuation is necessary, identify the number of people affected and develop a plan

- Consider occupants that need assistance to evacuate (e.g. disabilities, medical needs, refuge areas)
- Establish a safe evacuation point and consider safe egress routes and refuge points
- Assess the suitability of the location for people to shelter in place
- Review the use and effectiveness of evacuation, shelter in place or 'stay put' plans throughout the incident, to ensure they remain valid
- Consider the impact of the incident on the local community and consider a shelter in place strategy
- Ascertain the likely impact of people on emergency responders
- Make contact with the relevant authorities for advice on evacuation arrangements and progress

Control measure - Seek assistance for dealing with people

Control measure knowledge

Fire and rescue services may require assistance for dealing with people at incidents. This assistance could include:

- Providing welfare or shelter
- Controlling members of the public, including crowds
- Dealing with unpredictable, aggressive, violent or illegal behaviour

Welfare or shelter arrangements may be required for people affected by the incident, either
directly or indirectly.

Food and water may need to be provided to people who are not able to leave the surrounding area, for example, where transport networks have been affected. Or, depending on the scale and nature of the incident, it may be necessary to identify and arrange suitable locations and logistics to provide shelter for large numbers of people.

The following publications provide detail about such arrangements:

- HM Government's Evacuation and shelter guidance
- HM Government's Emergency Response and Recovery
- HM Government's website for Emergency preparedness

Members of the public may put themselves at risk, or encourage others to put themselves at risk – for example, to attempt to rescue a person, animal or property. Communicating with people about the risks they are taking or are contemplating taking may prevent them from entering the hazard area.

However, it may be necessary to request that the police control members of the public. The safety of fire and rescue service personnel should be maintained, even if they are faced with the moral pressure to act.

**Strategic actions**

Fire and rescue services should:

- Liaise with local authorities and partner agencies to pre-plan for public shelters, as part of the community risk assessment
- Assist with pre-planning local support service arrangements for people affected by emergencies
- Have processes and arrangements in place for requesting local emergency support services

**Tactical actions**

Incident commanders should:
• Consider the welfare or shelter arrangements for people directly or indirectly affected by the incident

• Request police assistance to control members of the public, including crowds

• Consider adopting defensive tactics if people are displaying unpredictable, aggressive, violent or illegal behaviour

• Request police assistance for dealing with unpredictable, aggressive, violent or illegal behaviour

• Request support for people affected by the incident, from the local authority, partner agencies or police family liaison officers

• Provide timely advice to members of the public

**Control measure - Warn, inform and advise people**

**Control measure knowledge**

Under the Civil Contingencies Act, Category 1 responders are required to put arrangements in place to make information available to the public about civil protection matters and to maintain arrangements to warn, inform and advise the public in the event of an emergency.

In some situations, information provided to the public may have to be restricted, especially if its release could cause panic and potentially result in further harm to people.

Information communicated to, or withheld from, people can influence their behaviour. Communicating with people, particularly those in groups or crowds, is essential to maintain order and manage behaviour.

In emergencies, the key communications objective will be to deliver accurate, clear and timely warnings, information and advice to people, so they feel confident, safe and well-informed.
Warnings, information and advice should:

- Be specific and clear
- Be timely and accurate
- Come from a credible source and be verifiable
- Convey the nature and extent of the danger

Warnings, information and advice can be delivered in many ways including:

- Face-to-face
- Visiting premises – residential and commercial
- Media and social media announcements
- Public announcements in areas such as public buildings, shopping centres, sports venues and transport networks

**Strategic actions**

Fire and rescue services should:

- Develop guidance and support arrangements to effectively communicate with people during emergency incidents
- Develop arrangements with partner agencies for the delivery of warnings, information and advice during emergency
• Develop guidance and support arrangements for the effective use of media services

Tactical actions

Incident commanders should:

• Use the most effective methods for communicating with people who are either directly or indirectly involved in the incident

• Consider the use of media, social media and other methods to communicate with people

• Establish a media liaison point and brief a nominated media liaison officer

Hazard - Public disorder

Hazard Knowledge

Public order may go through phases, perhaps starting with tension in a community, group or crowd. This could turn into disorder, with actions including disruption, damage or violence. It may then deteriorate to serious disorder or rioting, with violent protest, criminal damage, looting and the use of weapons or fire.

Disorder may be contained at a single location, but may spread to a wide geographic area, sometimes at a fast-moving pace. It can range from being loosely organised or opportunistic, through to being well-organised, sometimes using social media.

The hazards presented to personnel in situations of disorder or serious disorder include:

• Thrown or dropped objects such as:
  ◦ Bricks
  ◦ Stones
  ◦ Concrete blocks
  ◦ Petrol bombs
  ◦ Fireworks

• The use of knives, firearms or improvised weapons such as:
  ◦ Hand tools
  ◦ Vehicles
Aggressive dogs

- Incendiary devices
- Fire setting, with the fire setters sometimes remaining in the area to observe firefighting or set more fires
- Booby traps
- Ambushes
- Damage to, or theft of, fire and rescue service equipment and vehicles
- Improvised obstructions or barricades to delay or trap emergency responders and their vehicles
- Biohazards, especially if there have been physical attacks on people

Although those participating in public disorder may not target the fire and rescue service, personnel should be aware that their role may put them at risk during disturbances.

Police resources may be limited during public disorder and may be unable to attend when requested. This should be considered during the risk assessment of fire and rescue service activities.

Control measure - Secure equipment and vehicles

Control measure knowledge

To reduce the risk of damage to, or theft of equipment, the minimum amount of equipment should be used to safely resolve an incident. It may not be advisable to set up equipment stations, and fire and rescue service equipment and vehicles should be secured. Security may be provided by personnel, or by using police assistance.

It may be necessary to deviate from normal procedures, for example removing and restowing hydrant keys and bars to prevent their theft or misuse.

Strategic actions

Fire and rescue services should:

- Ensure their vehicles can be secured to prevent theft of the vehicles or the equipment contained in them
Tactical actions

Incident commanders should:

- Consider deploying the minimum amount of equipment during public disorder
- Maintain the security of fire and rescue service vehicles and equipment during public disorder

Control measure knowledge

Regularly updated intelligence and information from the police should be used to inform the risk assessment, as well as providing advice on the safety of personnel. Incidents should be approached with caution, and appropriate tactics used.

However, if personnel are at threat of, or subjected to, violence or aggression it may be necessary to withdraw fire and rescue service personnel, vehicles and equipment to a safe location.

Operational activities may have to be adjusted to allow for the rapid withdrawal of personnel, or for alternative means of transport from the scene provided. For example, the use of an appliance pump, hose reels or other equipment attached to an appliance may prevent rapid withdrawal; therefore, alternative procedures to deliver water may need to be considered.

Vehicles should be positioned to allow for rapid withdrawal. It may be not be possible to retrieve all equipment when withdrawing, but the potential for its illegal use should be taken into account when prioritising its recovery.

Strategic actions

Fire and rescue services should:

- Participate in multi-agency planning and training for public disorder
Tactical actions

Incident commanders should:

- Establish and communicate the signal and plan for rapid withdrawal during public disorder
- Gather regularly updated information and intelligence from the police
- Ensure operational activities allow for rapid withdrawal of personnel, vehicles and equipment during public disorder

Control measure - Avoid confrontation

Control measure knowledge

When attending, incidents where there may be violence or aggression, personnel should consider how their behaviour may be perceived by the people present.

Confrontation may be avoided by:

- Not making prolonged eye contact
- Using open body language
- Not taking up postures that may be perceived to be aggressive or threatening
- Maintaining an appropriate distance from the people involved
- Remaining calm

Strategic actions

Fire and rescue services should:

- Have a process in place for informing fire control rooms that personnel may become affected by confrontation or public disorder
- Ensure personnel are aware of procedures if involved in confrontation or public disorder
Tactical actions

Incident commanders should:

- Ensure personnel avoid confrontation if there is a risk of violence or aggression
- Inform the fire control room that personnel may be affected in confrontation or public disorder

Hazard - Failing to make resources ready for redeployment or otherwise before leaving the incident ground

Hazard Knowledge

The responsibilities of the incident commanders in relation to managing operational resources, including personnel, does not end when the incident is in its 'closing stage'. All equipment used at the incident will need to be accounted for, made up and, on return to the station, either need to be replenished or be subjected to the necessary testing requirements before being made fully operational again.

Resources need to be made ready for redeployment; failing to correctly do this could result in mobilisation to another incident in an inappropriate state. Before being deemed fully-operational, equipment will need to be appropriately:

- Accounted for
- Made-up
- Replenished
- Decontaminated
- Tested

Communication between the commander of appliances, personnel and fire control room is essential throughout this phase to ensure all parties have knowledge of the operational status of appliances and personnel before leaving the incident ground. Failing to communicate this information could result in the fire control room incorrectly deploying vehicles and personnel to another incident.
Control measure knowledge

Incident commanders should consider whether appliances can remain at the incident ground, whilst being available for deployment to other incidents. This decision should be made following a risk assessment and service control informed of any availability status change. The crew of available appliances at incidents should be informed and deployed only in accordance with current status.

Fire control will generally have a more accurate interpretation of the availability of resources across the service than personnel attending operational incidents. Information on the availability or commitment of resources will support fire control in determining covering moves or the reallocation of resources from one incident to another.

The decision to release resources should consider operational priorities and consider the length of time crews have been deployed at the incident and their roles.

Strategic actions

Fire and rescue services should:

- Ensure that operational procedures identify safe systems of work for the status, availability and redeployment of appliances and resources.

Tactical actions

Incident commanders should:

- Regularly update fire control on the availability status of appliances and other resources
- Consider whether appliances, personnel, equipment and other resources can be released from the incident

Fire control operators should:
• Identify the availability of appliances, personnel, equipment and other resources when considering redeployments

Control measure - Manage, inspect and test equipment

Control measure knowledge

At the conclusion of an incident appliances and equipment should be returned to operational readiness with appropriate speed. Operational equipment should be inspected and tested according to service policy and any test results must be recorded. Cleaning of equipment should be completed and the appliance should be fully restowed. Where appropriate, any defective equipment should be clearly marked and, where necessary, removed from use.

Any equipment defects or deficiencies should be recorded, before leaving the incident ground and, where appropriate, fire control should be informed. The appliance commander is responsible for all crew members and equipment stowed on their appliance.

See Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment Section 5, Formulating Health and Safety Policy for the Operational Environment, sub section 5.1, paragraph 3, Arrangement for procuring and maintaining operational equipment / plant Page 12-13.)

(Fire Service Manual, Volume 1, Fire Service Technology, Equipment and Media, Inspection and Testing of Equipment, Chapter 3: Inspection, Testing and Maintenance, sub section 3.4 - 3.17.2)

Strategic actions

Fire and rescue services should:

• Have procedures for the post incident inspection and maintenance of operational appliances, equipment and other resources

Tactical actions

Incident commanders should:

• Ensure equipment receives appropriate after use inspection and testing before changing
Hazard Knowledge

It is important to consider the need to preserve the scene of the incident for investigation. Actions taken at all stages of an incident may affect the preservation of evidence.

Failing to properly secure and manage a scene may allow contamination of the scene, with a resultant loss of evidence. If scenes are not properly managed, this can distort initial findings and prolong subsequent efforts to identify the cause of the incident, and potential offenders.

Investigation of an incident is a complex and specialist task; it is important that the scene is preserved as completely as possible and accurate records kept following the conclusion of the incident. They may be required as evidence in legal proceedings.

The need to investigate should not affect bringing an incident to a safe and satisfactory conclusion, nor interfere with incident objectives and priorities. During an incident, there may be an opportunity to scale down incidents and allow investigators into safe areas, but this should not affect ongoing operations and scene safety should remain a priority. Nominating safe paths to and from the scene will assist in protecting evidence and the safety of investigators.

Allowing evidence to be lost or contaminated, or keeping incorrect or incomplete records of actions, may affect an investigation with serious consequences. Understanding the reasons for investigation helps to establish why failing to preserve a scene can be hazardous. Investigations are required to:
• Help prevent similar events from occurring, by identifying trends
• Enable better targeting of enforcement and advice
• Assist in the prosecution of offenders
• Assist with legal proceedings
• Contribute to national statistics through accurate reporting on the incident recording system (IRS)
• Assist with advising and educating young people
• Assess the effect of fire and rescue service intervention
• Understand the cause of the incident
• Understand the functioning of safety features

Any fire and rescue service action that impedes or prevents investigation affects this process. Therefore, it is the responsibility of all responders to support the investigative process which, if successful, may reduce the frequency or severity of incidents, and improve intervention.

Investigating a scene is inherently hazardous. Every person involved in the activity should aim to minimise the risk involved, while performing as full an investigation as possible. Even post-incident, incident commanders should consider the following factors to minimise risk:

• Identify the hazards, assess and record the risks at the scene and establish the appropriate control measures, including:
  ◦ Personal protective equipment (PPE)
  ◦ Respiratory protective equipment (RPE)
• Identify the type, location, extent and circumstances of the incident
• Identify and evaluate available information
• Identify which specialists and other agencies need to be involved

To aid this process, a risk assessment must be carried out by the investigating officer during investigations.

**Contamination of the scene**

Contamination transfer can occur if ‘foreign objects’ are brought inside cordon areas. These objects can include:

• Personal protective equipment (PPE)
• Gloves
• Drink or food packaging
• Cigarettes
• First aid supplies

Any contaminated transfer creates false evidence that could waste significant time and resources to identify, recover and process forensically during the key phase of an investigation.
DNA evidence is robust and can withstand heat, soot contamination and water. However, in many cases, it may not be immediately apparent where the DNA evidence has come from. Any blood injuries to an emergency responder that occur within the inner cordon should be noted and brought to the attention of the relevant agency, particularly in a police-led investigation.

Loss of evidence

Evidence at the scene may be lost or compromised by events, including:

- Damage being caused by exposure to the elements
- Disturbance by material being moved from its original position, including by:
  - People involved in the incident
  - Emergency responders
- Disturbance by items being taken into it
- Disturbance by material being removed from it
- Cross-contamination by transference between scenes
- Vehicle disturbance
- Animal disturbance
- Microbiological activity causing decay to material

Control measure - Scene security

Control measure knowledge

Securing the scene and preserving evidence should commence immediately if doing so does not affect safety or the successful conclusion of an incident.

Incident commanders should achieve scene security and evidence preservation by establishing and maintaining cordon controls.

Incident commanders should use cordons to keep the public out and maintain control within the inner cordon. A cordon should start as large as practicable until such a time as resources can be released from a scene and the size of the cordon reduced. The police crime scene investigators may search the inner cordon to ensure that any potential evidence is recovered. Other agencies may wish the cordon to be of a specific configuration; incident commanders should liaise with them and balance safety concerns with the needs of investigating agencies.

Only authorised personnel should enter the scene and a clear common approach path must be
used for all authorised personnel to protect physical evidence and prevent cross-contamination.

If there are any doubts about the cause, requests (after the operational phase of the incident has been concluded) to allow occupiers or others to enter a property or access a vehicle should be considered carefully. If allowed, the person must be accompanied and supervised and the actions/people/locations recorded.

Where necessary windows and apertures that give a vantage point to see into the scene should be covered to prevent direct observation.

The decision to leave identified physical evidence at the scene should be carefully considered. If it is essential to move anything, a record should be kept with reasons/implications explained. Care is needed where insurance claims will be made as the property may transfer ownership to the insurance company.

Personnel need to be aware that scene preservation will be necessary to enable other organisations to investigate an incident fully. Fire and rescue services should ensure that only personnel required to deal with the incident access the site and that any necessary movement of casualties, objects and wreckage is minimised.

Once rescue and firefighting operations are complete, the responsibility for the security of an incident, property, contents and personal effects will be that of the police or the statutory investigation team. All personnel should consider how their actions may affect any subsequent investigation and identify and prioritise evidence that may deteriorate.

Early liaison to establish the requirements of the statutory investigation team is required. However, the control of the scene should not interfere with any lifesaving activities or fire and rescue service statutory duties.

It is important to control the number of people allowed on the incident site so that evidence such as personal effects are not disturbed, or are disturbed as little as possible. When the situation permits, there should be a careful withdrawal of all non-essential personnel and equipment. Where casualties or bodies are moved, great care should be taken to ensure that any item that is adjacent is recorded or moved with the casualty or body.

The police may be required to take control of cordons after they are established and maintain scene logs.

**Strategic actions**

Fire and rescue services should:
Ensure personnel receive information, instruction and training in a structured approach to the investigation

Tactical actions

Incident commanders should:

- Secure the scene to ensure evidence is preserved for internal and external investigations
- Inform all personnel of known or likely areas of interest for fire or criminal investigation
- Hand over responsibility for the security of premises and removed items to the responsible person or the police
- Preserve the scene for future investigations

Control measure - Preserve evidence and support investigation

Control measure knowledge

An ongoing emergency and the actions of responders can affect evidence required for an investigation.

Fires, floods or other emergencies can destroy or significantly alter structures, vehicles and objects. With every passing minute, key evidence may be lost before the fire and rescue service arrives. On arrival at the scene, it is important that incident commanders and firefighters consider their firefighting tactics and actions to ensure, wherever possible, that evidence is protected and preserved and the scene is not contaminated by the activities of the responding crews. The unintended consequence of simple actions such as washing down equipment after an incident may destroy or obfuscate evidence.

Where evidence cannot be preserved physically, information to support investigations should be captured in other forms. See: Control Measure - Accurate records and statements.
Once in attendance, the fire and rescue service can ensure that as much evidence as possible is preserved. Identify potential evidence and take steps to preserve or retrieve it where it may be lost during operations.

Incident commanders should confirm:

- All information relating to the incident
- Whether life has been confirmed extinct if there is a deceased person at the scene
- Age, gender, name and contact details of the deceased, casualties, witnesses and agencies (utilities, etc.) in attendance
- Information recorded by the entry control operative, if required
- Entry route and tactical methods used to effect entry
- Doors and windows open or broken at the time of the incident
- Emergency fire vehicle call signs – helping to establish if CCTV is available from appliances

Other sources of information, may include:

- CCTV on the emergency fire vehicles
- Local CCTV
- Fire/burglar alarm systems at the scene, including any remote, offsite recording systems
- Mobile phone recordings made by eye witnesses (video or conversations), potentially downloaded to local news sites or social media feeds

The positions of fatally injured casualties are extremely important for identification purposes and to help establish cause. The removal of bodies should only be carried out under the direction of the police or statutory investigation team.

However, removing the bodies before the arrival of investigation teams or medical teams may be necessary to rescue survivors or to prevent the bodies being destroyed by fire or by some other hazard. Where this is the case, the position of the body and its location should be noted, labelled if possible and reported to the investigation team.

Rescuers who have moved bodies should be questioned and a statement should be made as soon as possible after the incident while the memory of their actions is relatively fresh and they can recall body positions accurately. Whenever possible, an officer should be appointed to map out as accurately as possible the location and position of bodies, bearing in mind that some incidents, especially high-speed crashes, may result in human remains being distributed over a wide area.

Any items that fall from the casualty or body whilst being moved should be collected, recorded and kept with the casualty or body if possible, as it may prove to be a means of identification.

It should also be remembered that bodies that have been badly burnt become brittle and are likely to fall apart if untrained personnel move them; this can destroy vital evidence of identification and...
cause of death.

It may be useful for photographs or video to be taken of the wreckage, the accident site and the position of the bodies. This can also assist in debriefing purposes.

**Strategic actions**

Fire and rescue services should:

- Develop tactical guidance and support arrangements for the actions to take to preserve evidence at the scene of an incident, in consultation with partner emergency services and agencies
- Provide crews with appropriate information and training on preservation of evidence

**Tactical actions**

Incident commanders should:

- Ensure that good scene preservation and practices are adopted at all stages of an incident
- Avoid movement of dials, valves and controls or record original position for investigation purposes
- Consider preservation of evidence when planning, communicating and implementing tactics
- Delegate collection of physical evidence to a police crime scene investigator or fire service investigator
- Consider moving physical evidence to a safe place, away from the effects of the fire or firefighting
- Note issues relating to cordons or physical evidence in the decision log
- Notify police or fire investigators if crews have recently attended other relevant incidents

**Control measure - Consider using closed-circuit**
Control measure knowledge

Closed-circuit television (CCTV) systems are found in many different forms with various degrees of capability. Although the type of system and its overall purpose will vary, they are mainly used to ensure the safety and security of premises, people and property.

Many city centres, motorway and road networks, individual buildings (commercial and domestic), public vehicles and even emergency fire vehicles are equipped with cameras linked to networks or recording facilities. All of them may provide valuable information for the fire and rescue service from both an operational and investigative perspective.

Systems are often monitored by a dedicated CCTV control room, which can be a useful source of information to help an incident commander build a picture of what has occurred and what is currently going on in areas that may be remote from where fire and rescue service personnel are operating.

These dedicated CCTV control rooms may be located in individual premises or sometimes remotely at other locations. They often have the capability to broadcast live or recorded imagery to multiple networked receivers who may be on a fire ground or at a remote location.

Dedicated CCTV control rooms are often able to adjust the views of individual cameras. For larger incidents or in areas with difficult or dangerous terrain such as wildfire incidents, it may be appropriate to use CCTV equipment attached to aerial vehicles such as helicopters, fixed-wing aircraft or remotely piloted aircraft.

Some CCTV may be able to provide imagery in radiation spectrums, including infrared, which could provide helpful data during incidents with poor lighting or obscured visibility.

Note: CCTV systems fitted to fire and rescue service vehicles can be useful in protecting fire and rescue service employees who may sometimes be subjected to verbal abuse, physical attacks or road traffic collisions.

Strategic actions

Fire and rescue services should:

- Make appropriate arrangements with CCTV system operators where necessary and, according to identified risks, to assist with operations, incident command structures and
interoperability
- Develop tactical guidance and support arrangements for the hazards and actions to be taken into consideration when using CCTV systems at operational incidents
- Following the assessment of risk in the fire and rescue service area, consider using vehicle and personnel mounted cameras

**Tactical actions**

Incident commanders should:

- Access and secure CCTV footage for subsequent investigations and debriefs

**Control measure - Investigation**

**Control measure knowledge**

Incident commanders should have a basic understanding of the need to investigate and understand the causes of accidents, injuries and the behaviour of buildings, materials and people. As well as how the information from investigations can inform future learning, developing fire and rescue service policies and campaigns to reduce risk to firefighters and the community.

The range of incidents attended by fire and rescue services is diverse in nature and extent. An assessment of the incident dictates the nature of response deployed to bring it to a safe conclusion, either at the time of call (by reference to predetermined attendances) or through specific requests made from the incident ground.

To ensure that the correct level of investigation is instigated or undertaken by the appropriate person, personnel should understand that there are different levels of investigation and know which individual would perform the appropriate level of investigation at different incident types.

Other organisations may have to carry out their own investigations depending on the incident type and nature of the investigation required. During an incident, it may be necessary to liaise with other agencies and hand over responsibility for the scene and/or investigation (see JESIP). To achieve this successfully will require pre-planning and good scene and/or investigation management practices.

The police are responsible for investigating suspected crimes, which includes activity related to fires and other emergencies.
The police have an additional role as the investigative body for the coroner or procurator fiscal; all fatalities will fall within the coroner's or procurator fiscal's remit.

**Health and safety regulatory body**

The Health and Safety Executive (HSE) and the Health and Safety Executive Northern Ireland (HSENI) are the national independent watchdogs for work-related health, safety and illness. They are independent regulators acting in the public interest to reduce work-related death and serious injury in all UK workplaces.

**Investigating a fire and rescue service**

In rare cases, the police and/or Health and Safety Executive (HSE) or equivalent may be required to investigate the actions of a fire and rescue service itself after the fire and rescue service has attended an incident. Whether the fire and rescue service under investigation is required to assist with the investigation will depend on the nature of the enquiries.

However, it may be prudent to anticipate this and ensure that arrangements exist where independent investigators (whether appointed by the fire and rescue service or by the police or HSE or HSENI) can be requested and given access to the facilities they require. This may also be useful where there is the potential for a conflict of interest (real or perceived) to exist if the service investigated, for example, a fire reignition.

**Multi-agency investigations**

Certain investigations may require several agencies to work together for all or part of it. Where possible, a lead agency will have overall responsibility, although this may not always be straightforward as roles may change during different phases of the investigation.

Time should be taken at the start to ensure a clear appreciation of each agency's role, legal powers and duties, resource commitment and what they are seeking to prove or disprove. Arrangements for areas such as information sharing, administration, media briefings, team updates and so on can also be agreed at this stage. In certain cases, it may be necessary to draw up formal written memoranda of understanding (MoUs) for an individual investigation to ensure clarity and agreement on the key areas.

As well as organisational interests, it is important to establish the competencies/areas of specialist knowledge of the individual personnel forming part of the team and the role they will play in the investigation.

Other agencies may also be involved for a limited time to perform specific tasks without being part of the investigation. The nature of their involvement, details of personnel and any impact on evidential material should be recorded.
During any investigation, the investigator should consider an individual's right to confidentiality and understand the needs of individuals including their culture, religious beliefs, ethnic origin, sexuality, disability or lifestyle, have regard to vulnerable adults and children, and have respect for the professional ethics of others. This is particularly important when working as part of a multi-agency investigation.

**Strategic actions**

Fire and rescue services should:

- Have policies and procedures for post incident investigations and the preservation of evidence
- Provide crews with appropriate information and training on post incident investigations
- Develop tactical guidance and support arrangements for an investigation, in consultation with partner emergency services and agencies
- Develop appropriate memorandums of understanding (MoU) for key partners

**Tactical actions**

Incident commanders should:

- Instigate and co-operate with post incident investigations where necessary

**Control measure - Accurate records and statements**

**Control measure knowledge**

Good record keeping is important in any investigation. For effective and methodical data gathering, consider using a log book, which could take the form of a contemporaneous notebook that can be referred to when providing evidence in a court of law. Physical evidence noted on arrival (broken window or remains of a petrol bomb, etc.) should be documented and the police informed. Incident commanders should ensure that personnel are aware that they may be required to give
Decision logs can also be used to maintain a record of decisions and rationale for actions. Recording not only the evidential material but also the process followed can be very important for formal investigations. Without it, the evidence may be challenged or deemed inadmissible if not secured in accordance with recognised practice or local agreements.

If the fire and rescue service seizes evidence, this should comply with the appropriate standards for its collection, handling and storage.

As part of the investigation process, personnel may be asked for witness statements which should be given as soon as possible. Debriefing of any incident may form part of the investigation and should be recorded.

**Strategic actions**

Fire and rescue services should:

- Ensure personnel receive information, instruction and training in a structured approach to the investigation
- Provide a means of capturing and securing records, statements and other evidence

**Tactical actions**

Incident commanders should:

- Collate and secure records from the incident and witness statements to inform future investigations
- Record statements from relevant people as soon as practicable to assist in the investigation process

**Control measure - Incident Handover**
Control measure knowledge

The handover phase of an investigation may take place directly at the scene or at a later stage, once all the scene work has been completed. The nature of a handover will be influenced by the scene or the nature of the investigation and may range from a formal and documented handover to a verbal briefing.

Where a statutory body is taking over, an appropriate level of formality should be employed and all reasonable effort should be taken to avoid the compromise of any evidence recovered.

For non-statutory agencies, local protocols or an assessment of each incident on its own merits will determine the extent to which the fire and rescue service can assist with an on-site handover or maintenance of scene security. Most commonly, this category includes investigators employed by, or acting on behalf of, insurers.

When the party taking over the scene does not have a statutory role, the fire and rescue service should be able to satisfy itself that it is the appropriate body or person to take responsibility for the scene.

The physical transfer of the scene between agencies, notably after fire and rescue service operations, is an important stage. It is very easy for scene management practices to be reduced or lapse during the transition. The fire and rescue service may be keen to remove any equipment still deployed and have a last walk round the scene. The organisation taking over may want to view the scene, either escorted by the fire and rescue service or not. Good cordon and scene management will limit the potential for valuable evidence to be lost or compromised.

The handover should include:

- Incident history (the incident and actions of the fire and rescue service, members of the public or other first responders)
- Facts relevant to the investigation (methodology and actions taken so far)
- Safety issues (possibly including risk assessment findings)
- Other issues that may have had an impact on the scene or be of relevance to the investigation (e.g. witness details)

For formal handovers, it may be useful to record the names and signatures of the responsible individuals from each agency.

It is important to remember that, where a scene is handed back to the owner or occupier, some of this information may be provided.

Handing over the scene or investigation may not be the end of fire and rescue service involvement.
and the fire and rescue service may continue to play a supporting role. In this case, fire and rescue service personnel should make themselves familiar with the working protocols of the lead agency.

Liaison

Scene-based liaison will often tie in to existing local protocols and incident management systems, particularly with statutory partners who will be familiar with this type of working.

Maintaining liaison away from the scene can be more difficult and the principle of providing single or named points of contact can ensure efficient and appropriate practices. This can be particularly important when managing the exchange or submission of documents, other evidence or where interviews may be requested. Too many informal contacts can compromise the organisations or evidence and result in no one having a full knowledge of the investigation.

Where the details of other parties are not known at the time, it can be useful to have a general contact point for initial enquires that can be readily accessed, for example, through the fire and rescue service website.

In all cases, a managed approach to liaison can ensure that the investigation is progressed effectively; each agency can track their involvement and actions, with decisions set out and explained at a later stage if required.

Having clear protocols for formal and informal liaison processes will assist management of the investigation. Informal processes are particularly open to misinterpretation, where one party may feel they had an 'off the record' conversation only for it to be used subsequently and attributed to them as evidential material.

Strategic actions

Fire and rescue services should:

- Develop tactical guidance and support arrangements for the actions to take to hand over responsibility for a fire scene and/or investigation, in consultation with partner emergency services and agencies

- Ensure appropriate arrangements are in place for handing over a scene

Tactical actions

Incident commanders should:
• Hand over responsibility for removed items and security of premises to the responsible person or the police

• Notify investigators if crews have recently attended other incidents where cross contamination may have happened

• Liaise with the police and local authority support teams at incidents involving serious injury and fatalities

Control measure - Written reports

Control measure knowledge

Comprehensive report writing is a key aspect of gathering information and intelligence at an incident.

It is important that reports are accurate, clear and unbiased as they will support further research, formal investigation and/or statistical content.

In addition, witness statements including those of attending personnel should be made. Witness statements are often taken using an electronic template document developed by a fire and rescue service that should be based only on objective and personal recollection of events, not on opinions and unfounded conclusions.

Legislation, such as the Criminal Procedures and Investigation Act 1996 and the Criminal Justice Act 2003 should be referred to regarding the legal standpoint for official report writing and note taking. This includes the need to:

• Record the information as soon as practicable
• Retain the information in its original and complete format
• Reveal the information when requested
• Review the information for accuracy, procedural applications and assessment of corporate or operational risks and threats

Reports can consist of:

• Informal contemporaneous notes:
  ○ Made at the time of an incident or event, or as soon as practicable, whilst the facts of
the situation are still fresh in the mind of the person making the record

- Where operationally practicable, notes and records should be written in ink
- Consider creating a permanent record of other notes - for example dry-wipe breathing apparatus (BA) entry control boards can be photographed
- Notes have a legal significance in that they can capture more detail than a person may recall at a later date

- Formally structured data gathering documents
  - Notes made on unofficial materials or papers should be transcribed onto an official form of record as soon as practicable after the event. The original form of the note must be retained and disclosed if required.

- Contemporaneous note books, as issued to officers

- Sketch plans, diagrams and photographs
  - Can include the layout of a building or compartment, positions of people, vehicles or sectors, and are considered to be equivalent to a written record or note
  - The storage and movement of digital images and media is subject to legislation such as the Data Protection Act 1998, the Freedom of Information Act 2000 and the Human Rights Act 1998

All types of records should be signed and dated by the person creating them so as to enable their use within a formal legal context if required.

**Strategic actions**

Fire and rescue services should:

- Develop guidance for personnel to record relevant information to support investigations, in compliance with relevant legislation

- Have policies and procedures that comply with the relevant legislation for note taking, recording information and report writing, for all appropriate levels of investigation

- Provide appropriate means of recording information to be used in an investigation

**Tactical actions**

Incident commanders should:
• Record all relevant incident information in an appropriate format for use in internal and external investigations

Control measure - Attendance at coroner's court (or equivalent)

Control measure knowledge

Fire and rescue service personnel may be called to give evidence at an inquest into the death of an individual. The aim of an inquest is to establish the means, cause and circumstances of a person's death. The coroner is also lawfully charged to identify measures to prevent future deaths in similar circumstances.

The aim of the inquest is not to apportion blame or to attack the behaviours or actions of key personnel such as the emergency services, but to understand the situation leading up to the event the actions of first responders and the conditions in which the deceased may have been found.

Fire and rescue service personnel are seen as professional witnesses. Their role is to assist the inquest in understanding the situation that the fire and rescue service faced on arrival at an incident and to explain their professional observations, actions and outcomes.

The fire and rescue service witness could be presenting evidence as:

• An officer in charge or firefighter directly involved in the incident
• The fire investigation officer who has investigated the cause, spread and outcome of the incident

The coroner will take the fire and rescue service witness through their statement and/or report made in relation to the incident. An inquest is a fact-finding process and it is not necessary to remember exactly what was said at a specific time during a dynamic incident. The coroner will give the fire and rescue service witness the opportunity to add, confirm or change their statement. This may be followed with more specific questions or requests for clarification on key points of a technical or professional nature from the coroner or others in court, including family members of the deceased.

Fire and rescue service witnesses should avoid using technical or working jargon and seek to present evidence in an unambiguous and simple manner. If a witness is asked a question that they cannot give a full or factual answer to, the coroner may direct them not to answer the question and
instead seek to resolve the issue through open discussion with the family members in court.

The aim of the fire and rescue service witness should always be to impart their knowledge and observations from the incident in a clear and informative manner and to add clarity to the inquest's understanding of the incident. The inquest is not necessarily concerned with the specific and individual technical aspects of the activities of any one firefighter during a dynamic incident. Prior to attending those called should:

- Ensure they have copies of their statement and/or any report previously provided to the coroner
- Review their statement to ensure the contents are accurate. They should check dates, times and key facts in the statement.
- Consider discussing the statement and/or report with an experienced fire investigation officer to gain an understanding of the types of questions that may be asked by the coroner and/or family members of the deceased

Personnel providing witness to a coroner’s court are not on trial but are there to assist the court in understanding the circumstances of the incident and should:

- Be prepared to discuss their professional observations and immediate actions on arriving at the scene so that the coroner has a clear understanding of the physical condition of the incident
- Can explain how, as a fire investigation officer, they arrived at their stated hypothesis for the cause of the fire and spread
- Refrain from drifting from their relevant areas of professional knowledge
- Answer the questions in a factual manner; the coroner will oversee the inquest and manage the impact on the family members

N.B. For ease of publication the terms ‘coroner’, 'coroner's court' and 'inquest' have been used in this control measure. However, it is recognised that other terminology is used outside of England and Wales; the equivalent of these terms should be applied where appropriate (e.g. procurator fiscal)

Refer to the [Ministry of Justice, Guide to Coroners Services](#) for details on the inquest process in England and Wales.

Refer to information and booklets available on the [Crown Office & Procurator Fiscal Service](#) for details on the inquest process in Scotland.

Refer to the publication [Working with the Coroners Service for Northern Ireland](#)
Strategic actions

Fire and rescue services should:

- Develop guidance and support arrangements for the actions to take to enable personnel to provide evidence in a court of law, in compliance with relevant legislation and following consultation with partner emergency services and agencies

Tactical actions

Incident commanders should:

- Prepare evidence and records to a standard appropriate for scrutiny at any potential future inquest or inquiry

Control measure - Highlight trends

Control measure knowledge

A trend consists of several events that exhibit one or more features in common. This may be geographical, physical or related to other circumstances under which they occur. Trends can be identified in relation to both accidental and deliberate fires but will generally only comprise one or the other.

Failure to identify trends at the earliest possible stage can risk the possibility of the number or severity of events increasing so early identification is important. This is particularly true of deliberate fires where a series of small fires may reflect someone's growing confidence in using fire before attempting something more serious.

Accidental fire or accident trends may relate to new products or changes in the way existing products are used. Whatever the reason, investigation can assist when identifying a trend, establishing its cause, confirming common features and collecting the evidence required to influence a solution.

External liaison and information
Good liaison with other fire and rescue services and other organisations will help to establish whether the trend is localised or being seen in other areas. The liaison can take place through existing groups and communication networks (general or specialist) or established specifically for the trend depending on the nature of the issue. For example, with deliberate fires, close liaison with the police and other agencies that maintain relevant data will be important; they may have additional knowledge about individuals or activities.

Monitoring

Identifying and researching a trend should provide a means by which targeted interventions can be taken.

Once action has been taken, the impact on the trend should be monitored both remotely and through attendance at scenes. Care will also be required to ensure that the problem has been addressed and not just displaced. Again, effective use of analysis and fire investigation will help to confirm this.

**Strategic actions**

Fire and rescue services should:

- Develop guidance, processes and support arrangements for the actions to take to highlight and take appropriate action address trends, In consultation with partner emergency services and agencies

- Have a process to share appropriate learning and the findings of investigation with National Operational Learning

**Tactical actions**

Incident commanders should:

- Use all available systems to actively identify the potential for trends and share information with other agencies

Control measure - Operational learning
Control measure knowledge

Following an incident, fire and rescue services should perform debriefs, investigations and use the operational assurance process to identify learning to:

- Improve public safety
- Improve the safety of fire and rescue service personnel or others involved during or post-fire activities
- Share previously unidentified hazards, risks and safe systems of work

Collecting information

Investigation can play an important part in supporting future learning by providing a structured and objective approach to identifying and capturing evidence. This approach should ensure that it withstands scrutiny in its future application and is fit for purpose. Operational learning from any incident type may provide information pertinent to public or responder safety. Learning opportunities should be identified and shared locally and nationally as appropriate to improve intervention and safety, identify hazards and develop safe systems of work.

Once the opportunity for future learning has been identified, careful and early consideration should be given to the type and format of information required.

The environment in which the information will be used is important as this may also have its own rules regarding ethics, storage and data protection, etc.

See National Operational Learning: [Good practice guide for fire and rescue services](#)

Strategic actions

Fire and rescue services should:

- Develop guidance, processes and support arrangements for the actions to take to support future learning for internal and external stakeholders, in compliance with relevant legislation and following consultation with partner emergency services and agencies

- Have a process to share appropriate learning and the findings of investigation with National Operational Learning
Tactical actions

Incident commanders should:

- Record and share significant findings from incidents and investigations to inform future practice