



National  
Operational  
Guidance

# Guidance

## Operations



**NFCC**  
National Fire  
Chiefs Council

Developed and maintained by the NFCC

---



# Contents

- Introduction ..... 5
  - Risk management plan* ..... 5
  - Responsibility of fire and rescue services* ..... 6
  - Terminology of National Operational Guidance* ..... 6
- Hazard - Inability to store and retrieve call and incident data ..... 7
  - Control measure - Capture call and incident data* ..... 8
  - Control measure - Follow the standard message process* ..... 9
- Hazard - Calls from or about persons at risk ..... 11
  - Control measure - Provide survival guidance* ..... 12
- Hazard - Physical and mental effects on personnel alerted to respond to an incident ..... 14
  - Control measure - Monitor the well-being of personnel* ..... 15
  - Control measure - Safe system of work: Being alerted to respond to an incident* ..... 16
- Hazard - Driving to incidents ..... 18
  - Control measure - Comply with road safety regulations* ..... 20
  - Control measure - Work-related road safety* ..... 21
  - Control measure - Provide and maintain appropriate vehicles* ..... 23
  - Control measure - Use local knowledge* ..... 25
  - Control measure - Use effective navigation* ..... 26
  - Control measure - Closed-circuit television* ..... 29
  - Control measure - Make a safe and controlled approach to the incident* ..... 31
  - Control measure - Position fire and rescue service vehicles safely* ..... 33
  - Control measure - Maintain safe access, egress and escape routes for fire and rescue service vehicles* ..... 34
- Hazard - Unable to gain access or entry ..... 36
  - Control measure - Gain access or entry* ..... 38
- Hazard - Failing to manage health, safety and welfare ..... 41
  - Control measure - Undertake pre-planning* ..... 43
  - Control measure - Engineering controls* ..... 44
  - Control measure - Consider training and competence* ..... 46
  - Control measure - Assess risk from lone working* ..... 48
  - Control measure - Establish safe systems of work* ..... 49
  - Control measure - Hierarchy of control* ..... 50
  - Control measure - Personal protective equipment* ..... 52
  - Control measure - Respiratory protective equipment* ..... 55
  - Control measure - Undertake pre-planning: Deployment of breathing apparatus* ..... 58



|  |     |
|--|-----|
| <i>Control measure - Breathing apparatus malfunction and reporting procedure</i> .....     | 60  |
| <i>Control measure - Deployment of breathing apparatus wearers</i> .....                   | 62  |
| <i>Control measure - Breathing apparatus entry control</i> .....                           | 67  |
| <i>Control measure - Rapid deployment of breathing apparatus</i> .....                     | 69  |
| <i>Control measure - Breathing apparatus emergency arrangements</i> .....                  | 71  |
| <i>Control measure - Telemetry</i> .....   | 73  |
| <i>Control measure - Welfare</i> .....   | 75  |
| <i>Control measure - Post-incident health surveillance</i> .....                           | 76  |
| Hazard - Working near water or other liquids .....   | 78  |
| <i>Control measure - Assess the risk of working near water or other liquids</i> .....      | 79  |
| <i>Control measure - Safe system of work: Working near water or other liquids</i> .....    | 80  |
| Hazard - Physiological stress .....  | 81  |
| <i>Control measure - Reduce exposure to hazards</i> .....                                  | 82  |
| <i>Control measure - Task rotation</i> .....   | 83  |
| Hazard - Heat illness in personnel .....   | 84  |
| <i>Control measure - Prevent and manage heat illness in personnel</i> .....                | 85  |
| Hazard - Hypothermia in personnel .....  | 86  |
| <i>Control measure - Prevent and manage hypothermia in personnel</i> .....                 | 87  |
| Hazard - Weather conditions .....  | 88  |
| <i>Control measure - Monitor weather conditions</i> .....                                  | 88  |
| Hazard - Lightning .....   | 90  |
| <i>Control measure - Safe system of work: Lightning</i> .....                              | 91  |
| Hazard - Noise .....   | 92  |
| <i>Control measure - Reduce risk from exposure to noise</i> .....                          | 93  |
| <i>Control measure - Isolate the source of noise</i> .....                                 | 94  |
| <i>Control measure - Safe system of work: Noisy environments</i> .....                     | 95  |
| Hazard - Reduced visibility .....  | 96  |
| <i>Control measure - Safe system of work: Reduced visibility</i> .....                     | 96  |
| Hazard - Vibration .....   | 98  |
| <i>Control measure - Reduce risk from exposure to vibration</i> .....                      | 98  |
| Hazard - Vibration from vehicles or machinery .....  | 99  |
| <i>Control measure - Minimise the impact of vibration from vehicles or machinery</i> ..... | 100 |
| Hazard - Manual handling .....   | 101 |
| <i>Control measure - Correct manual handling techniques</i> .....                          | 102 |
| Hazard - Physical injuries from animals .....  | 103 |
| <i>Control measure - Avoid, contain or control animals</i> .....                           | 104 |
| Hazard - Infectious diseases .....   | 106 |



*Control measure - Manage the risk from infectious diseases* ..... 107

*Control measure - Monitor personnel exposed to infectious diseases* ..... 110

Hazard - Psychological hazards ..... 111

*Control measure - Manage risk from psychological hazards* ..... 111

Hazard - People ..... 113

*Control measure - Evacuation and shelter* ..... 115

*Control measure - Seek assistance for dealing with people* ..... 120

*Control measure - Warn, inform and advise people* ..... 122

Hazard - Non-specialist personnel inadvertently attending a marauding terrorist attack ...  
124

*Control measure - Apply the JESIP 'STAY SAFE' principles* ..... 125

Hazard - Public disorder ..... 128

*Control measure - Secure equipment and vehicles* ..... 129

*Control measure - Withdrawal from public disorder* ..... 130

*Control measure - Avoid confrontation* ..... 131

Hazard - Failing to make resources ready when closing an incident ..... 132

*Control measure - Communicate the availability of resources* ..... 133

*Control measure - Manage, inspect and test equipment* ..... 134

Hazard - Failing to leave the incident ground in a safe state ..... 135

*Control measure - Make an effective handover to the responsible person* ..... 136

*Control measure - Consider community recovery* ..... 139

Hazard - Compromised investigations: Poor scene preservation ..... 139

*Control measure - Secure the scene for investigation* ..... 142

*Control measure - Preserve evidence for investigation* ..... 144

Hazard - Compromised investigations: Ineffective or inappropriate actions ..... 147

*Control measure - Conduct or support investigations* ..... 148

*Control measure - Accurate record-keeping* ..... 153



## 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.



## Terminology of 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:

**'Must'** – actions that are required by legislation. For example:

*An assessment **must** be carried out to identify whether the space is confined. Some spaces will become confined spaces because of the work to be carried out in them or because of changes in their use or changes to the level of enclosure.*

**'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:

*A face mask fit test **should** be carried out as part of the initial selection of the respiratory protective equipment, and it is good practice to ensure testing is repeated on a regular basis.*

**'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:

*At incidents that involve working at height there may be instances where the incident commander cannot observe all areas of the incident, and may not initially have enough information to maintain situational awareness.*



## 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 personnel 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 process**

---

## 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

## Tactical actions

Fire control personnel should:

- Use the message formats provided when recording information
- Capture call signs or names as provided by the incident ground
- Consider how mobilisation messages might influence the behaviour of responding personnel, including those driving to the incident
- Consider providing additional or updated information in an appropriate manner to responding personnel, including those driving to the incident

Incident commanders should:

- Use the message formats provided to ensure information sent to the fire control room is clear and concise
- Provide a call sign or name as a prefix to any message sent to the fire control room



## 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 - Provide survival guidance

---

### 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 Search rescue and casualty care - [Situational awareness: Search for a missing person](#)

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.

For further information refer to [Fire safety in purpose-built blocks of flats](#).

### **Flooding**

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

For further information refer to Royal Society for the Prevention of Accidents [Flood advice and information](#).

### **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)

### **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 personnel 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 team safety protocols
- Follow dress codes
- 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 duty system (on-call) personnel.

## **Strategic actions**

Fire and rescue services must:

- Ensure personnel understand the laws and regulations relating to driving, and the exemptions for emergency vehicles
- Regularly check the validity of driving licences for all personnel who may carry out work-related driving
- Ensure that all personnel who may carry out work-related driving are competent and medically fit to do so

## **Tactical actions**

All personnel should:

- Ensure that emergency vehicles are driven in accordance with current legislation, regulations and exemptions
- Immediately report road traffic collisions in accordance with fire and rescue service policies and relevant legislation



## 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:





- Manage the risks to drivers as part of their health and safety arrangements
- Ensure drivers are mobilised to incidents in an appropriate manner
- Ensure drivers are competent to be mobilised to incidents
- Consider providing education to members of the public to improve road safety when they encounter emergency vehicles

## Tactical actions

Incident commanders should:

- Take account of the impact of fatigue, stress, working time regulations and driving time regulations when assigning drivers to incidents

All personnel should:

- Ensure that work-related driving is carried out in accordance with fire and rescue service policies
- Notify the incident commander if they become unfit or unable to carry out work-related driving while attending an incident
- Notify their fire and rescue service if they become unfit or unable to carry out work-related driving before attending an incident
- Comply with legislation, ensure seatbelts are worn and avoid activities that could compromise their safety while travelling



**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 \(Northern Ireland\)](#)
- [The Highway Code - Annex 6: Vehicle maintenance, safety and security](#)
- [The Highway Code for Northern Ireland – Annex: Vehicle maintenance, safety and security](#)
- [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 1846-2:2009+A1:2013 Firefighting and rescue service vehicles. Common requirements. Safety and performance
- 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

Fire and rescue services should:

- Ensure personally owned vehicles used in connection with fire and rescue service work conform to the appropriate legislation, regulations and standards
- Ensure any fitting or retrofitting of equipment is subject to a risk assessment based on appropriate legislation, regulations and standards
- Consider the potential effect of driver distraction from on-board technology

## Tactical actions

Incident commanders should:

- Ensure personally owned vehicles used in connection with fire and rescue service work conform to the appropriate legislation, regulations and standards
- Use vehicles that are appropriate for the incident, in line with fire and rescue service policy
- Ensure vehicle checks and maintenance are carried out in line with fire and rescue service policy
- Be aware of the potential distraction caused by the use of on-board technology



## Control measure - Use local knowledge

---

### Control measure knowledge

Knowledge of the 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

the identified risks in the area to gain an understanding of the hazards they may encounter, and any precautions they should take.

The ability to read printed maps or street atlases may be required to locate an incident. Fire and rescue service vehicle 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 knowledge could include:

- Local events
- Traffic hotspots
- Roads prone to flooding

In rural areas, personnel 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 (SSSI).

## Strategic actions

Fire and rescue services should:

- Ensure operational personnel are familiar with the risks and road networks in their area

## Tactical actions

Incident commanders should:

- Use local knowledge 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



## Control measure - Use effective navigation

---

### Control measure knowledge

#### Maps

Maps 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 provide important information to aid navigation, planning, decision-making and risk management when getting to or at an incident.

Personnel should not totally rely on satellite navigation systems; knowledge of the topography of the area cannot be underestimated as an important tool for arriving promptly at an incident.

### **Navigation aids**

Navigation aids may include:

- Satellite navigation systems
- GPS devices
- Other online mapping systems, such as Google Maps
- Applications such as [what3words](#)

### **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 [the civil protection common map symbology](#), which is a set of common map symbols to promote interoperability between emergency responders.

[Mapping for Emergencies](#) (MfE) 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. The MfE service supports the resilience community and is available free of charge 24 hours a day, every day of the year. They can be contacted by dialling 03456 050505.

### **Ordnance Survey information**

The [Ordnance Survey website](#) 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](#), 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.

If fire and rescue services use multiple grid reference formats, personnel should know how to convert between the different types of grid reference.

### **what3words**

Many emergency services are able to use the [what3words](#) application. This enables callers to provide a three word address when they request assistance. The application interprets the three words into a precise 3m<sup>2</sup> location.

### **Local features**

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

Fire and rescue services should know how to contact transport operators to request assistance, if their services or activities may affect response times.

### **Strategic actions**

Fire and rescue services should:

- Provide access to suitable navigation aids to personnel
- Maintain contact details for transport operators, such as railway officials, bridge authorities and ferry companies

## Tactical actions

Incident commanders should:

- Confirm the location of the incident and respond using pre-planned routes or GIS mapping systems
- Use topography and map reading skills to aid navigation to an incident
- Use appropriate navigation aids when locating and responding to incidents
- Contact rail, bridge, ferry or other operators if their services and activities may affect response times



## Control measure - Closed-circuit television

---

### Control measure knowledge

Closed-circuit television (CCTV) systems can assist fire and rescue services at many stages of an incident including:

- Providing fire control rooms or personnel en route to an incident with additional information about its type, size and location
- Providing personnel with information about the area near to the incident, for example:
  - Traffic conditions
  - Presence of people
  - Presence of animals
  - Presence of other emergency responders
- Providing an incident commander with additional information to improve situational awareness, even if they are remote to the incident
- Assisting with post-incident investigation
- Improvement in operational learning

There are many types of CCTV systems, with various capabilities. They are mainly used to ensure the safety and security of premises, people and property, and may be found at locations including:



- Commercial and residential buildings
- Roadways and pedestrian walkways
- Public transport vehicles
- Emergency responder vehicles

CCTV cameras can also be worn by:

- Emergency responders
- Security guards
- Bailiffs
- Military personnel

Cameras may be linked to networks or recording facilities, and systems may be monitored by dedicated CCTV control rooms; these may be located in individual premises or at remote locations. The control room may be able to broadcast live or recorded imagery to other users, regardless of their location. 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 drones (classified as a type of [unmanned aircraft](#) by the Civil Aviation Authority).

Some CCTV may be able to provide images in radiation spectrums, including infrared, which could provide helpful information in reduced visibility.

CCTV systems that are fitted to fire and rescue service vehicles, or body worn cameras, may act as a deterrent or be useful in capturing evidence; this could include instances of verbal abuse, physical attacks or road traffic collisions.

Arrangements should be made with local CCTV system operators during pre-incident planning, so that requests for their assistance during an incident can be handled efficiently.

## **Strategic actions**

Fire and rescue services should:

- Make appropriate arrangements with CCTV system operators and know how to request their assistance
- Consider using vehicle and body worn cameras

## Tactical actions

Fire control personnel should:

- Consider using CCTV to gather additional information about the incident or its location, and pass relevant information to the incident commander

Incident commanders should:

- Request access to CCTV footage or to the information gathered through use of CCTV systems
- Consider requesting the assistance of aerial CCTV resources
- Consider using CCTV to assist with mobilising to the incident
- Consider using CCTV to inform situational awareness
- Access and secure CCTV footage for investigations
- Consider using CCTV footage to help inform operational learning



## Control measure - Make a safe and controlled approach to the incident

---

### 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 or event. Personnel should understand how their fire and rescue service classifies emergency incidents versus non-emergency events, and respond appropriately.

If travel to the incident is delayed or aborted, or if there any safety concerns about the routes being taken by fire and rescue service vehicles, the fire control room should be notified. They can take

appropriate action to send alternative resources to the incident, or ensure that resources use alternative routes.

Incident commanders should determine the safest routes for attending vehicles and the availability of holding areas. This information should be communicated to the fire control room so that attending resources are able to make a safe approach.

The incident may impact on making a safe and controlled approach to the incident, for example smoke may obscure the driver's vision. Therefore, the potential for incident spread, changes in cordons or a change of wind direction, should be taken into account when identifying suitable approach routes and holding areas.

### **Use of blue lights and audible warning devices**

In addition to standard vehicle lighting, blue lights and audible warning devices should be used appropriately to improve road safety when driving to an incident. Fire and rescue services should determine the appropriate use of blue lights and audible warning devices for emergency incidents and non-emergency events, and drivers should comply with their service's guidelines policies or procedures.

It may be necessary for all emergency responders to avoid the use of flashing lights and audible warning devices when attending certain types of incidents or events, for example if there are animals present.

### **Strategic actions**

Fire and rescue services should:

- Have arrangements in place to ensure that the fire control room is promptly notified if travel to the incident is delayed, aborted or unsafe
- Ensure personnel understand the classification of emergency incidents and non-emergency events, and the appropriate response for each

### **Tactical actions**

Incident commanders should:

- Use an appropriate response, based on the type of the incident or event



- Approach the vicinity of the incident cautiously and at slow speed, to minimise the risk of collisions
- Ensure fire and rescue service vehicles use appropriate blue lights, audible warning devices and lighting
- Consider the impact of weather when determining the safest access routes
- Identify the safest access route, rendezvous points (RVPs) and marshalling areas, and communicate to all responders and the fire control room
- Notify the fire control room if there could be a failed, delayed or unsafe response



## 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:

- Apply safety measures to minimise the risk of collisions
- Consider the potential effects of incident development when positioning appliances
- Be prepared to reposition fire and rescue service vehicles if they are at risk from the incident



**Control measure - Maintain safe access, egress and escape routes for fire and rescue service vehicles**

---

## 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
  - No through roads
  - 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 indicate access, egress and escape routes for fire and rescue service vehicles where possible
- Consider the impact of the incident and operational activity on access, egress and escape routes for fire and rescue service vehicles
- Consider the impact of the transport infrastructure on safe access and egress routes for fire and rescue service vehicles
- Implement contingency plans if a fire and rescue service vehicle becomes trapped
- Consider using personnel on foot to assess ground conditions and identify appropriate routes if it is necessary to drive fire and rescue 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 [Safe access or entry: Fires in buildings](#) 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
- Consider maintaining a list of companies who can secure or remove vehicles after access or entry has been gained by force
- Provide personnel with a form of personal identification for when they need to gain access to property or premises

### **Tactical actions**

Incident commanders should:

- Carry out an appropriate risk assessment to determine the need and legality for gaining access or entry by force
- Select the safest and simplest method for gaining access or entry by force

- Implement measures to maintain access and egress during the incident
- Ensure that prioritised actions are taken to make the initial entry point safe to use, or establish an alternative access and egress point
- Advise personnel of the location of alternative access and egress points that are established after initial entry has been made
- Consider taking appropriate steps to secure premises or vehicles after access or entry has been gained by force
- Prepare personnel for the need to produce an official form of personal identification if challenged when gaining access to property or premises
- Enter a premises or place, by force if necessary, without the consent of its owner, for the purposes of extinguishing fire, protecting life or property, excluding Crown property, ministry of defence, diplomatic or consular premises



## 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 disorders
- 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 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 - Undertake pre-planning

---

### **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 competence

---

### 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
- 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 on the limits of competence of personnel and alternative arrangements
- 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 competences
- 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

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 personnel with the means to communicate safety-critical information at the incident ground

## Tactical actions

Incident commanders should:

- Gather information from a variety of sources to gain accurate situational awareness and understanding
- Identify and react safely to new or unexpected hazards
- Reduce risk by implementing appropriate control measures
- Ensure that everyone on the incident ground, including those from other agencies, is fully briefed on the current hazards, risks and control measures
- Communicate safety-critical information and unexpected developments to relevant personnel



## 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:

- Provide incident commanders with the means to record their rationale for implementing control measures

## Tactical actions

Incident commanders should:

- Consider the hierarchy of control when deciding which control measures to implement
- Manage risk in the physical environment using a hierarchy of control approach
- Establish a safe working environment for personnel and other emergency responders



## Control measure - Personal protective equipment

---

### Control measure knowledge

Personal protective equipment (PPE) is defined in regulations as:

*All equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects the person against one or more risks to that person's health or safety, and any addition or accessory designed to meet that objective.*

If an employer finds PPE to be necessary after a risk assessment, they have a duty to provide it free of charge. It includes items such as:

- Helmets
- Gloves
- Eye protection
- High-visibility clothing
- Safety footwear



If PPE is required, employers must ensure their workers have sufficient information, instruction and training on its use. All workers must use the PPE properly, following training and instruction in its use from their employer. If the PPE the employer provides is lost or becomes defective, the worker should report that to them. It should be noted that a worker can be an employee or anyone who carries out casual or irregular work for one or more organisations, as long as they are not self-employed.

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. This information should be communicated to relevant personnel.

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.

PPE must be maintained in good working order and correctly stored when not in use. If PPE has become dirty, contaminated or damaged it may not perform to the standard required or expected. PPE should only be worn if it has been subject to appropriate cleaning, decontamination and testing processes that are in accordance with the manufacturer's instructions.

Fire and rescue services should ensure they have suitable arrangements in place to replenish supplies of PPE that are no longer in good working order, or are of a disposable type.

For legislative requirements, refer to:

- [The Personal Protective Equipment at Work Regulations](#)
- [The Personal Protective Equipment at Work \(Amendment\) 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 workers with suitable PPE that fits the wearer correctly and adequately controls identified risks
- Ensure that any PPE worn simultaneously is compatible and adequately controls the risks when used together
- Ensure their workers have sufficient information, instruction and training on the use of PPE
- Maintain PPE in good working order
- Provide appropriate storage facilities for PPE when it is not being used

Fire and rescue services should:

- Carry out risk assessments to define the specific PPE that will be required for an activity
- 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
- Ensure personnel understand the procedures for notifying an appropriate person or department if the PPE provided is lost or becomes defective

## **Tactical actions**

Incident commanders should:

- Determine the level of PPE for hazards identified in a risk assessment
- Determine if more than one item of PPE is required, and if so, ensure they are compatible and adequately control the risks when used together
- Communicate PPE requirements to relevant personnel and ensure they have access to the appropriate PPE



- Ensure the appropriate level of PPE is maintained throughout the incident based on an assessment of residual risk
- Check the condition of PPE when assessing its operational readiness for redeployment
- Identify when dirt, contamination or damage may affect the performance of PPE
- Request that supplies of PPE are replenished if items are no longer in good working order, or are of a disposable type

All personnel must:

- Use PPE properly, following the training and instruction provided in its use

All personnel should:

- Follow service procedures to notify an appropriate person or department if the PPE provided is lost or becomes defective



## 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 irrespirable 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 irrespirable atmospheres. The use of BA as a control measure 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

For more information refer to [The Foundation for breathing apparatus](#).

### **Strategic actions**

Fire and rescue services must:

- Provide personnel with suitable and appropriate RPE that fits and protects the wearer
- 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 assessments and communicate this information to personnel
- Have suitable arrangements for the provision, testing and maintenance of respiratory protective equipment
- Ensure personnel regularly undertake face mask fit testing of RPE

## Tactical actions

Incident commanders should:

- Carry out a risk assessment before deploying personnel wearing RPE
- Ensure personnel wear the appropriate type of RPE
- Consider the use of airline equipment



## Control measure - Undertake pre-planning: Deployment of breathing apparatus

---

### Control measure knowledge

**This control measure is supported by the:**

- [Breathing apparatus foundation material: Pre-incident breathing apparatus procedures](#)
- [Breathing apparatus foundation material: Pre-incident personnel responsibilities](#)
- [Breathing apparatus foundation material: Pre-incident equipment responsibilities](#)

Fire and rescue services are required to identify risks and collect information indicating where there may be hazards to personnel. For further information refer to Operations: Undertake pre-planning.

Information gathered during pre-planning should identify locations that may require:

- The deployment of breathing apparatus (BA)
- The use of ancillary equipment, such as:
  - Torch or lamp
  - Telemetry
  - Radio communications
  - Thermal imaging camera
- The provision of [equipment that is suitable for use in explosive atmospheres](#)
- The removal of equipment that is not suitable for use in explosive atmospheres; this may include personal possessions

Pre-planning should include the arrangements for the timely mobilising of the ancillary equipment that may be required in the event of BA deployment.

When pre-planning for the potential deployment of BA, consideration should be given to the effectiveness of communication methods, especially if there may be limited penetration of radio signals into buildings, or into structures below ground. Building plans may assist with pre-planning arrangements.

In order to ensure the safety and effectiveness of communications with BA teams, pre-planning should consider taking proactive steps to enhance the effectiveness of radio communications and telemetry at these locations.

For further information refer to the [Fireground radios guidance](#).

## Strategic actions

Fire and rescue services should:

- Carry out pre-planning for the deployment of BA, radio communications and telemetry
- Provide personnel with access to pre-planning information relating to the deployment of BA,



radio communications and telemetry

- Provide personnel with appropriate ancillary equipment to support the use of BA, and have mobilisation plans for it in place
- Provide personnel with appropriate communications equipment for BA operations
- Consider taking proactive steps to enhance the effectiveness of radio communications and telemetry at identified locations

## Tactical actions

Incident commanders should:

- Access pre-planning information relating to the deployment of BA, radio communications and telemetry
- Access information about the ancillary equipment available for BA operations, and the plans for its mobilisation
- Ensure that only suitable equipment is deployed or allowed into the hazard area if there is the potential for there to be an explosive atmosphere



## Control measure - Breathing apparatus malfunction and reporting procedure

---

### Control measure knowledge

Dangerous occurrences are classified under the [Reporting of Injuries, Diseases and Dangerous Occurrences Regulations](#) (RIDDOR). The malfunction of breathing apparatus is defined as a dangerous occurrence:

- Where the malfunction causes a significant risk of personal injury to the user; or



- During testing immediately prior to use, where the malfunction would have caused a significant risk to the health and safety of the user had it occurred during use, other than at a mine

The RIDDOR definition applies to breathing apparatus used in contaminated atmospheres or where there may be a lack of oxygen. It refers to a session of use of the apparatus during or immediately before which a malfunction is detected. The malfunction may be present and be detected immediately before the session, including any testing by the wearer immediately before use, or it may occur at some point after the session has started.

The term 'malfunction' does not include leakage into a face mask due to a poor fit or a failure caused by an external source, such as damage due to entanglement or falling debris.

Dangerous occurrences must be reported to either the Health and Safety Executive or the Health and Safety Executive Northern Ireland. For information on how to do this, refer to either:

- [Health and Safety Executive: When do I need to report an incident?](#)
- [Health and Safety Executive Northern Ireland: Report a dangerous occurrence](#)

Further clarity on which BA malfunctions are reportable under RIDDOR has been provided by the Health and Safety Executive, Operational Circular, [OC 208/6: Reporting of breathing apparatus malfunctions by fire & rescue services and other users](#)

Following a BA malfunction, the following actions should be taken by an appropriate person:

- Take control of the BA set
- Record details including:
  - The cylinder pressure before closing the cylinder valve
  - The precise number of turns required to close the cylinder valve
  - The time the BA wearer entered the incident
  - The time the BA wearer left the incident
  - All other information from the BA entry control board
  - Any other obvious information regarding the condition of the set, without dismantling it or carrying out a detailed inspection
- Put the following items into a suitable bag which should be sealed, labelled and secured:
  - The BA set
  - The BA tally
  - The face mask
  - The cylinder
  - The log book
- Inform the fire control room
- Record any remarks made by the BA wearer or other members of the BA team



- Obtain and record:
  - Witness statements
  - Briefing or debriefing logs
- Consider downloading and recording:
  - Information from the BA telemetry board
  - Thermal imaging camera data
  - Body worn video footage
  - CCTV information
- Complete any administration relevant to the investigation

## Strategic actions

Fire and rescue services must:

- In the event of a defined BA malfunction, comply with the regulations to report it as a dangerous occurrence

Fire and rescue services should:

- Nominate appropriate employees to take responsibility for the actions required following a BA malfunction

## Tactical actions

Incident commanders should:

- Ensure that an appropriate person takes control of and secures the BA set and ancillary equipment
- Ensure that all relevant information from the malfunctioned BA equipment and witnesses is recorded
- Inform the fire control room of a BA malfunction
- Assist with the investigation as required about the BA malfunction as required



## Control measure - Deployment of breathing apparatus wearers

---

### Control measure knowledge

This control measure is supported by the:

- [Breathing apparatus foundation material: Welfare of breathing apparatus wearers](#)
- [Breathing apparatus foundation material: Responsibilities for the welfare of breathing apparatus wearers](#)
- [Breathing apparatus foundation material: Procedures for breathing apparatus operations](#)
- [Breathing apparatus foundation material: Responsibilities during breathing apparatus operations](#)
- [Breathing apparatus foundation material: Procedures for deploying a single breathing apparatus wearer](#)
- [Breathing apparatus foundation material: Responsibilities when deploying a single breathing apparatus wearer](#)
- [Breathing apparatus foundation material: Procedures for re-entry of a breathing apparatus team into the hazard area](#)
- [Breathing apparatus foundation material: Responsibilities for re-entry of a breathing apparatus team into the hazard area](#)
- [Breathing apparatus foundation material: Procedures for breathing apparatus guidelines](#)
- [Breathing apparatus foundation material: Responsibilities for breathing apparatus guidelines](#)

A suitable assessment of risk must be carried out prior to deployment of breathing apparatus (BA). This should be based on the required operational objectives and the information available.

For further information refer to Incident command – [Ineffective safety management](#).

Specifically when deploying BA wearers, consideration should be given to the:

- Requirement for BA operations
- Safety and welfare of BA wearers
- Emergency evacuation or tactical withdrawal for BA wearers
- Requirement for appropriate BA emergency arrangements

The appropriate level of BA command and control procedures and safe systems of work should be used at all incidents where BA is deployed. The level of supervision should be based on the situation and circumstances of the incident. It should take the size and complexity of BA operations into consideration, along with the hazards and risks presented to BA wearers. These elements should be considered in conjunction with Incident command guidance.

BA should only be used on the instruction of, or with the authority of, the incident commander. Only the incident commander, operations commander or sector commander may nominate BA entry control operatives. The incident commander may delegate the authority to deploy BA wearers to operations commanders or sector commanders.

Personnel have the right to request BA for respiratory protection by informing the incident commander and BA entry control operative. Such requests should be considered as part of the normal risk management process. The appropriate BA entry control procedures should be initiated while personnel put on BA.

Procedures for briefing and debriefing BA wearers and BA teams are critical to establish safe systems of work and maintain firefighter safety. Comprehensive and effective briefing and debriefing of BA teams should take place every time and recorded when BA wearers are deployed.

Appropriate systems and processes for logging and recording all relevant BA-related command and control information and decisions should be established prior to deploying BA wearers.

The fire control room should be kept informed about the deployment of BA wearers, teams and guidelines. This should include any BA-related activity, such as re-entry, emergency evacuation or tactical withdrawal.

Appropriate and resilient methods of communication should be available at all times to ensure the effectiveness and safety of BA wearers. Communication is essential between the BA entry control points, BA wearers and command support, if established.

Appropriate firefighting equipment should be provided whenever BA teams are committed to a hazard area involving fire or a flammable atmosphere.

### **Deployment of a single BA wearer**

It may be appropriate to deploy a single BA wearer to carry out a specific task, providing the procedures for deploying a single BA wearer are followed. Stage 1 BA entry control procedures apply when deploying a single BA wearer.

### **Re-entry of a BA team into the hazard area**

After a BA team has withdrawn, reported to the BA entry control point and closed down their sets,

it may be necessary for them to re-enter the hazard area to perform a specific task. Re-entry should only take place for a limited and defined period to achieve a specific task, within the physiological and psychological capabilities of the BA wearers in the team.

### **Breathing apparatus guidelines**

The deployment of breathing apparatus guidelines should be based on an appropriate risk assessment and in accordance with the incident plan. The incident commander should consider using alternative or simultaneous tactics to assist operations and enhance firefighter safety. These may include adopting tactical ventilation techniques or additional access points.

Whenever guidelines are in use, stage 2 BA entry control procedures should be implemented for the whole incident. The use of guidelines should be regularly reviewed, and all relevant personnel should be informed that they are in use.

Additional BA support teams should be deployed in conjunction with BA guideline laying teams.

Guidelines should be stored, maintained and tested in accordance with the advice of the manufacturer. If not correctly stored, this could result in guidelines being paid out incorrectly or being in an unsafe condition.

### **Strategic actions**

Fire and rescue services should:

- Provide systems to support the logging and recording of BA-related command and control information and decisions
- Provide personnel with appropriate communications equipment for BA operations
- Provide any equipment required to support emergency evacuation, tactical withdrawal or emergency arrangements for BA operations
- Ensure that guidelines are stored, maintained and tested
- Enable communication between the incident ground and the fire control room, to support joint understanding of the BA operations in use

## Tactical actions

Incident commanders should:

- Determine the requirement for BA operations, based on the operational objectives and the available information
- Ensure steps are taken to maintain the safety and welfare of BA wearers
- Establish the emergency evacuation or tactical withdrawal processes for BA wearers
- Implement appropriate BA emergency arrangements
- Consider the physiological and psychological effects of previous activities on BA wearers, which may impact on their ability to safely undertake tasks
- Ensure all BA wearers are briefed and debriefed
- Ensure briefs and debriefs to BA wearers are adequately recorded
- Log and record all relevant BA-related command and control information and decisions
- Inform the fire control room about deployment of BA wearers, teams and guidelines
- Ensure appropriate and resilient methods of communication with BA-related personnel are maintained
- Ensure appropriate firefighting equipment is provided if BA teams are deployed to a hazard area that requires it
- Deploy, or delegate the authority to deploy, BA wearers if appropriate
- Consider using re-entry of a BA team, for a limited and defined period to achieve a specific task



- Determine the use of BA guidelines on the basis of an appropriate risk assessment, while also considering the use of alternative or simultaneous operational tactics
- Ensure that Stage 2 BA entry control procedures are implemented for the whole incident when guidelines are in use
- Regularly review the use of BA guidelines
- Ensure use of additional BA support teams in conjunction with BA guideline laying teams
- Inform all relevant personnel that BA guidelines are in use



## Control measure - Breathing apparatus entry control

---

### Control measure knowledge

This control measure is supported by the:

- [Breathing apparatus foundation material: Breathing apparatus entry control procedures](#)
- [Breathing apparatus foundation material: Procedures for stage 1 breathing apparatus entry control](#)
- [Breathing apparatus foundation material: Procedures for stage 2 breathing apparatus entry control](#)
- [Breathing apparatus foundation material: Supervision of breathing apparatus entry control points](#)

The breathing apparatus (BA) entry control point is the designated position at which BA deployment and command and control is managed. Disciplined adherence to BA entry control procedures, briefings and instructions is critical to the safety and effectiveness of BA operations and BA teams.

The incident commander should determine the need for additional resources to manage the BA entry control points and associated functions.

All personnel and other emergency responders should be made aware of the BA entry control procedures in use at the incident, particularly those in a position of command.

The level of BA entry control in use should be communicated to fire control rooms to enable monitoring officers to gather relevant information.

### **BA entry control operatives**

When establishing BA entry control arrangements, incident commanders should nominate and appoint a competent BA entry control operative for each BA entry control board, considering:

- The level of control implemented
- The number of deployments required
- The nature of the incident and the complexity of the role

### **Stage 1 BA entry control**

Stage 1 BA entry control procedures are used to monitor the safety of BA wearers at incidents if the number of BA wearers is small and BA operations are limited and not complex.

### **Stage 2 BA entry control**

Stage 2 BA entry control procedures apply when a greater level of control is required to manage and monitor the safety of BA wearers in complex BA operations, or if the criteria for Stage 1 have been exceeded.

### **BA entry control point supervision**

The incident commander or sector commander need to maintain an appropriate level of supervision as the risks and demands of a BA-related incident increase. For BA entry control points, this may be achieved through appointing a BA entry control point supervisor.

### **BA sectors**

BA sectors are functional sectors implemented to help manage and co-ordinate resources. If a BA sector is established, its location should be communicated to personnel and other relevant emergency responders.

### **Returning to the entry control point**

BA wearers should return to their originating entry control point if they are able to. However, on an exceptional basis that results in BA wearers being unable to return to that originating entry control point and having to leave the hazard area by an alternative exit route, the BA team leader should inform the originating entry control point operative of this. The BA team should return to the



originating entry control point to collect their tallies and provide a debrief.

Exceptions for being unable to return to the originating entry control point could include:

- Development of the incident, such as the originating entry control point becoming inaccessible
- Air management issues
- Performing rescues
- Welfare issues

## Strategic actions

Fire and rescue services should:

- Enable communication between the incident ground and the fire control room, to support joint understanding of the level of BA entry control in use

## Tactical actions

Incident commanders should:

- Determine and implement the appropriate level of BA entry control, and monitor during BA operations
- Appoint a competent BA entry control operative for each BA entry control board
- Determine the need for additional resources to manage the BA entry control points and associated functions
- Make all personnel, other emergency responders and the fire control room aware of the level of BA entry control in use
- Consider appointing a BA entry control point supervisor
- Consider establishing a BA sector; if established, communicate its location to personnel and other relevant emergency responders



## Control measure - Rapid deployment of breathing apparatus

---

### Control measure knowledge

This control measure is supported by the:

- [Breathing apparatus foundation material: Procedures for rapid deployment of breathing apparatus](#)
- [Breathing apparatus foundation material: Responsibilities during rapid deployment of breathing apparatus](#)

There may be exceptional circumstances where immediately available resources are unable to deliver the full incident plan, but it may be possible to carry out immediate life-saving actions, or to take actions to prevent an incident escalating. In these circumstances, rapid deployment of BA may be used under strict criteria and control.

Rapid deployment of BA should only be initiated following an appropriate assessment of risks and likely benefits. The fire control room should be informed that rapid deployment procedures are in use and why this decision has been made.

Further resources should be requested to establish the appropriate level of BA entry control, and the appropriate BA entry control procedures should be implemented as soon as resources allow.

Communication should be established between the BA wearers, the person monitoring the BA wearers and the incident commander.

### Strategic actions

Fire and rescue services should:

- Enable communication between the incident ground and the fire control room, to support joint understanding of when rapid deployment of BA has been initiated

### Tactical actions

Incident commanders should:



- Consider initiating the rapid deployment of breathing apparatus, following an appropriate assessment of the risks and likely benefits
- Inform the fire control room if initiating the rapid deployment of breathing apparatus
- Establish communication between BA wearers, the person monitoring BA wearers and the incident commander during rapid deployment of breathing apparatus
- Request further resources to establish the appropriate level of BA entry control
- Implement appropriate BA entry control procedures as soon as resources allow



## Control measure - Breathing apparatus emergency arrangements

---

### Control measure knowledge

This control measure is supported by the:

- [Breathing apparatus foundation material: Emergency arrangements](#)
- [Breathing apparatus foundation material: Responsibilities for emergency arrangements](#)

### Establishing emergency arrangements

Whenever breathing apparatus (BA) is deployed, the need for appropriate emergency arrangements should be considered; having these in place can provide prompt and effective emergency assistance to BA wearers in distress. The type and extent of emergency arrangements should be proportionate to all reasonably foreseeable risks to BA wearers.

Once established, emergency arrangements should be maintained, including replacement of emergency teams if deployed.

The need for emergency teams will depend on the type of incident, and the situation that is being dealt with, which may have resourcing implications. During the initial stages of operations, incident

commanders should consider as part of their incident plan whether BA emergency arrangements will be required, including the potential need for BA emergency teams and associated emergency equipment such as:

- First aid supplies
- Emergency air supply equipment
- Drag mats
- Breaking-in gear

### **Deployment of emergency arrangements**

In situations where BA emergency teams are in place, their deployment should be considered when certain conditions arise, or have the potential to arise. This is subject to an appropriate risk assessment being carried out by the person responsible for the BA entry control point, and includes when:

- A BA wearer fails to return to the BA entry control point before the pre-determined activation time of their low pressure warning, and they cannot be contacted to confirm their safety and wellbeing
- A distress signal is heard or received by a telemetry device, unless it can be established immediately that it is an accidental activation
- Audible or visual indicators suggest that a BA wearer is in distress, imminent distress or danger
- There is a prolonged and unexplained breakdown in communications
- Requested by a BA wearer in the hazard area

### **Declaration of a BA emergency**

A BA emergency should be declared if any of the above conditions arise and communicated to the incident commander and fire control room at the earliest opportunity. The declaration can be instigated by:

- BA entry control operative
- BA entry control point supervisor
- Sector commander
- Operations commander
- Incident commander

On receipt of the declaration of a BA emergency, fire control personnel should mobilise a minimum of one appliance with adequate BA capabilities to support BA operations. They should also inform the ambulance service of the emergency, and request their attendance.

## Strategic actions

Fire and rescue services should:

- Provide suitable and sufficient equipment for the emergency rescue of personnel wearing BA
- Ensure that their fire control room will mobilise a minimum of one further pumping appliance on receipt of a BA emergency message
- Ensure that their fire control room will arrange for the ambulance service to attend on receipt of a BA emergency message

## Tactical actions

Incident commanders should:

- Establish proportionate emergency arrangements to provide assistance to BA wearers in distress
- Maintain emergency arrangements, and replace emergency teams if deployed
- In the event of an emergency, ensure that a BA emergency message is communicated to the fire control room at the earliest opportunity
- Request the appropriate resources to resolve the emergency

Fire control personnel should:

- Mobilise a minimum of one further pumping appliance with adequate BA capabilities on receipt of a BA emergency message
- Arrange for the ambulance service to attend on receipt of a BA emergency message



## Control measure - Telemetry

---

### Control measure knowledge

This control measure is supported by the:

- [Breathing apparatus foundation material: Telemetry](#)
- [Breathing apparatus foundation material: Responsibilities for telemetry](#)

Telemetry allows live and relevant data to be transmitted and received between a remote monitoring point and the breathing apparatus (BA) wearer. Telemetry equipment should comply with relevant legislation and standards.

The power of a radio frequency signal diminishes over distance. It will also be affected as the radio waves pass through solid objects, such as walls and floors of buildings, basements or tunnels, or natural terrain.

To maximise the signal power of a radio frequency transmission, fire and rescue services should follow the advice given by telemetry equipment manufacturers; the use of a leaky feeder or repeater units may be required to enhance signal strength.

In the event of a loss of contact or breakdown in telemetry communications, emergency evacuation procedures should be considered; these can be total or selective in nature.

In the event of emergency evacuation procedures being put in place, details of the emergency evacuation should be communicated to all telemetry BA entry control operatives.

### Emergency total evacuation procedures

If two or more telemetry BA entry control boards or units are in use at the same incident and an emergency total evacuation is required, each telemetry BA entry control board or unit at the scene will initiate this level of evacuation.

### Emergency selective evacuation procedures

Emergency selective evacuation is an integral emergency feature available when telemetry is employed. It allows the person responsible for the BA entry control point to evacuate specific BA teams in an emergency while leaving other BA teams in place.

## Strategic actions

Fire and rescue services should:

- Consider providing compliant and appropriate telemetry equipment for breathing apparatus operations
- Ensure relevant personnel understand the limitations of the telemetry equipment

## Tactical actions

Incident commanders should:

- Ensure that telemetry equipment is used appropriately and in accordance with the manufacturer's advice
- Consider using additional equipment to enhance signal strength
- Determine an appropriate course of action if there is a loss of telemetry, and communicate this to all telemetry BA entry control operatives



## Control measure - Welfare

---

### 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.

Refer to:

- [Workplace \(Health, Safety and Welfare\) Regulations](#)
- [Workplace \(Health, Safety and Welfare\) Regulations \(Northern Ireland\)](#)

## 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 the welfare of personnel
- Consider the effect of weather conditions and time of day on the welfare of personnel
- Provide first aid equipment for personnel deployed to areas where there is no immediate medical assistance available
- Consider requesting appropriate facilities for the welfare of personnel



## Control measure - Post-incident health surveillance

---

### 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 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

All personnel should:

- Follow service protocols for reporting concerns about the mental or physical well-being of themselves or other individuals



## 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, refer to National Operational Guidance [Water rescue](#) and [Geophysical Hazards](#)

For more information on operational activity in the context of docks, harbours, marinas, canals and rivers, refer to National Operational Guidance: [Transport](#)



## Control measure - Assess 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
  - Reduced 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 - Safe system of work: 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 refer to National Operational Guidance: [Water rescue and flooding](#).

For information regarding work restraints refer to 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 to hazards

---

### 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 hazard area and avoid repeated exposure
- Increasing the distance from the hazard
- Specialist resources and vehicles to transport people and equipment

## 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
- Consider requesting specialist resources to transport personnel and equipment



## Control measure - Task rotation

---

### Control measure knowledge

Personnel attending an incident may need to be deployed as teams. These teams should be of an appropriate size to carry out the task and sufficient to allow task rotation. The use of task rotation may help to minimise the exposure of personnel to the hazards present.

If possible, personnel should share tasks, roles and functions and should manage team and task rotation if appropriate.

### 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 task 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 refer to:

- [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.

Refer to 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 - Prevent and manage hypothermia in personnel

---

### 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 refer to [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 - Weather conditions

---

### 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 - Monitor weather conditions

---

### Control measure knowledge

Current and forecast weather conditions should be monitored for any positive or negative impacts on operational activity, and any risks to the health and safety of members of the public, personnel and other emergency responders.

Visual observation of the weather and available meteorological information should be assessed. Current and forecast weather conditions should be used to inform risk assessments and the incident plan. It may be necessary to request further or more detailed meteorological information throughout the incident if this could benefit the delivery of operational tactics or improve the health and safety of members of the public, personnel and other emergency responders.

Meteorological information may be obtained from organisations such as the Met Office. Their [Hazard Manager](#) service is designed to provide consistent weather-related information and interpretation for emergency responders. Their [FireMet](#) weather system is designed to provide fire and rescue services with the latest weather information to help them identify a safe approach when dealing with a major incident. It provides three hours of hindcast data, as well as three hours of forecast data. The aim of FireMet is to provide immediate access to forecast conditions, while waiting for a more detailed [Chemical Meteorology \(CHEMET\)](#) report, which can be used to track the dispersion of a chemical release.

Consideration should also be given to the presence of a microclimate and its potential impact on weather conditions. Microclimates can be created by topography, buildings or structures and can affect conditions such as temperature, wind direction, wind speed and pollution plumes. More information is provided in the Met Office fact sheet about [microclimates](#).

### Lightning

Guidance for operational activity if there are weather warnings for lightning is provided in [Safe system of work: Lightning](#).

### Severe weather

Guidance for the impact of severe weather on communities and the operational response is provided in [Safe system of work: Severe weather](#).

## Strategic actions

Fire and rescue services should:

- Provide personnel with access to meteorological information, such as that provided by the Met Office
- Ensure that processes are in place to enable the timely communication of forecast weather conditions to operational and fire control personnel

## Tactical actions

Incident commanders should:

- Monitor current and forecast weather conditions for any positive or negative impacts they may have on operational activity and any risks to the health and safety of members of the public, personnel and other emergency responders
- Use visual observation of the weather and available meteorological information about current and forecast conditions to inform risk assessments and the incident plan
- Request additional meteorological information if this could benefit the delivery of operational tactics or improve the health and safety of members of the public, personnel and other emergency responders
- Consider the presence of a microclimate and its potential impact on weather conditions



## 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.

There are three different ways of being struck by lightning:

- Direct strike
- 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 [RNID 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 risk from 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

Alternative methods of communication may need to be adopted. This could include visual signs using hands, flags or lights.

## 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 in noisy environments
- Consider implementing appropriate methods to activate the emergency evacuation or tactical withdrawal of responders in noisy environments



## Hazard - Reduced visibility

---

### Hazard Knowledge

Visibility at the scene of operations may be reduced due to smoke, weather conditions or lack of light. This may result in:

- Personnel being unable to see hazards
- Personnel being unable to see each other
- Personnel becoming isolated, disorientated or lost
- Incident commanders having difficulty in monitoring personnel

Reduced visibility at night is likely to increase the time taken to complete tasks and may reduce the effectiveness of some activities.

The current and future levels of visibility at the scene of operations should be considered, including the potential impact on members of the public and transport routes.



## Control measure - Safe system of work: Reduced visibility

---

## Control measure knowledge

Working in reduced visibility may require:

- Lighting the scene
- Illuminating the hazard
- Illuminating personnel
- Appointing additional safety officers
- Establishing physical barriers

Making a detailed inspection of the scene of operations may be beneficial if visibility is likely to reduce.

Generators used for lighting may produce toxic fumes creating irrespirable atmospheres. The impact of fumes and noise produced by generators should be considered when positioning them. Battery powered lighting may be more appropriate in certain situations.

Lighting may need to be suitable for use in explosive atmospheres. Even if the scene to be lit has been assessed using gas monitoring equipment and does not contain flammable gases, pockets of gas could still be released once operations have commenced.

The heat generated by lighting should be considered when working in enclosed spaces or near flammable materials. Using light-emitting diodes (LEDs) or low heat output lighting systems may be more suitable.

It may be possible to use physical barriers to define routes and indicate the presence of hazards when it is necessary for personnel to work in reduced visibility.

## Strategic actions

Fire and rescue services should:

- Provide personnel with appropriate personal protective equipment (PPE) and equipment for operating in reduced visibility
- Provide appropriate scene lighting equipment

## Tactical actions

Incident commanders should:

- Review the tactical plan as visibility changes
- Request sufficient lighting of an appropriate type for working in reduced visibility
- Review the area before visibility reduces
- Consider using physical barriers to define routes and indicate the presence of hazards in reduced visibility
- Deploy additional safety officers to take into account the reduced visibility
- Provide lighting to illuminate routes and hazards in reduced visibility
- Ensure generators being used to provide lighting are located in an appropriate position to reduce the impact of noise and fumes



## Hazard - Vibration

---

### Hazard Knowledge

Hand-arm vibration comes from the use of handheld power tools and can result in significant ill health. 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 backpain.

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 a hierarchy of control approach should be adopted to minimise 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 or whole-body vibration

### Tactical actions

Incident commanders should:

- Ensure personnel follow service procedures when operating equipment that can cause hand-arm or whole-body vibration
- Consider rotating personnel using equipment that can cause hand-arm or whole-body vibration 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

Fire and rescue services should:

- Understand the impact of vibration that is generated by fire and rescue service vehicles and machinery, and provide relevant information to personnel

## Tactical actions

Incident commanders should:

- Consider the impact of vibration from movement or use of vehicles or machinery on the incident
- Assess the benefits versus risks of continued movement or use of vehicles or machinery
- Select which vehicles or machinery may be used, and apply control to those that should not be used
- Consider appointing personnel to monitor the impact of vibration, if the movement or use of vehicles or equipment cannot be eliminated



## 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 – refer to [Manual handling: Casualties](#) and [Bariatric casualty](#)
- Animals – refer to [Incidents involving animals](#)

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 - Correct manual handling techniques

---

### Control measure knowledge

All employers must comply with the risk assessment requirements set out in:

- [Management of Health and Safety at Work Regulations](#)
- [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:

- [Manual Handling Operations Regulations](#)
- [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:

- 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

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, refer to [Infectious diseases](#).

For information regarding rescuing or evacuating animals refer to 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
- 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 infectious diseases, including:

- 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
- Insects
- 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 refer to [GOV.UK: Health protection - Infectious diseases](https://www.gov.uk/health-protection-infectious-diseases)



## 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/notifiable-diseases-and-causative-organisms).

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) [Infections at work](#).

### **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. 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:

- Consider recording the presence of biological hazards (biohazards) in SSRIs
- Seek specialist advice to determine an appropriate vaccination plan
- Vaccinate personnel against infectious diseases where appropriate
- Provide suitable equipment to protect against infectious diseases
- Have suitable arrangements for the disposal of clinical waste
- Provide personnel with appropriate hygiene arrangements

## Tactical actions

Incident commanders should:

- Identify potential sources of infectious diseases
- Ensure personnel cover open wounds, cuts and grazes with a waterproof dressing prior to operational activity
- Determine if any personnel have existing health conditions that could be impacted by exposure to infectious diseases
- Request sufficient resources to enable hygiene or decontamination procedures to be implemented

- Implement appropriate hygiene or decontamination procedures
- Ensure that personnel refrain from eating, drinking, smoking or vaping prior to completing hygiene or decontamination procedures



## Control measure - Monitor personnel exposed to infectious diseases

---

### Control measure knowledge

Post-incident health monitoring may help to identify personnel exposed to infectious diseases. Some infectious diseases 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 infectious diseases. 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 exposed to infectious diseases

### Tactical actions

Incident commanders should:

- Record details of personnel who have potentially been exposed to infectious diseases, and notify an appropriate healthcare professional
- Ensure personnel understand the need to report any potential exposure to infectious diseases



## Hazard - Psychological hazards

---

### Hazard Knowledge

The effects of psychological hazards can be as debilitating as a physical injury. Excessive pressure caused by psychological hazards can cause stress, which harms the ability to think, communicate and operate effectively.

Stress occurs when an individual sees a difference between the demands placed on them and their ability to cope. Working under high demands in a challenging environment may also lead to both physical and mental fatigue. Psychological hazards can affect incident command and impair the functioning of a commander, individual or team. For example, anxieties and stressors take up part of a person's mental processing capacity and can distract attention from the situation. This can reduce the available capacity for focusing on and understanding information. If important information is neglected or not processed properly it may lead to an inaccurate mental picture of the situation. Equally the effects of exposure to psychological hazards can be experienced long-term, after the incident or event, and may not be fully appreciated or experienced if not identified at the earliest stage.

The effect of experiencing and being exposed to psychological hazards can differ for individuals and teams. As each incident is different, the exact pressures and demands are difficult to predict.

Psychological hazards may be present at any operational incident and most hazards can be identified and appropriate control measures adopted. However, there are subconscious and external underlying reasons, such as previous exposure or history, that mean the reactions or well-being of an individual may differ, or be affected in a variety of ways and at many levels.

For further information, refer to Incident command: [Ineffective command of an incident](#)



## Control measure - Manage risk from psychological hazards

---

### Control measure 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.

For further information, refer to Incident command: [Personal resilience](#).

## Strategic actions

Fire and rescue services should:

- Carry out strategic risk assessments to identify foreseeable psychological hazards within their area and identify control measures that eliminate or reduce the risk of their impact
- Consider procuring suitable screens to restrict the view of traumatic scenes

## Tactical actions

Incident commanders should:

- Consider seeking the assistance of other agencies when dealing with traumatic incidents
- Minimise number of personnel exposed to traumatic scenes where possible
- Erect screens to restrict the view of traumatic scenes
- Instigate post-incident processes for the support of personnel exposed to psychological hazards



## 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 well-being 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. There could also be children or vulnerable adults involved in the incident.

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 refer to Incident command - [Effective communications](#).

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 refer to Operations - [Warn, inform and advise people](#).

For further information, refer to 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 people 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 people in the 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 people to a place of ultimate safety, by either simultaneous or phased procedures:

- Simultaneous evacuation
  - The default approach, where it is unreasonable to expect people 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 people, 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 people away from the affected zone to an adjacent zone; for example, in a shopping centre where people would be moved to the adjacent smoke control zone while the fire-affected zone was brought under control

## Evacuation or escape strategies

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 Home Office'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 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 people:

- That there is a clear passageway to all evacuation routes
- The risks to people exiting along firefighting access routes
- Exposure to potential hazards
- Whether any people 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 well-being.

## 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 refer to:

- [Hazardous materials - Assess impact of release or spill](#)
- Hazardous materials – [Safe and controlled approach: Hazardous materials](#)

For information regarding contaminated casualties, refer to Hazardous materials - [Controlled evacuation of contaminated casualties](#).

## 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
- Establish the availability of pre-arranged evacuation strategies and policies
- When evacuation is necessary, identify the number of people affected and develop a plan
- Consider people who need assistance to evacuate, for example, disabilities or medical needs
- Establish a safe evacuation point and consider safe egress routes and refuge points or areas
- 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
- Safeguarding of children and vulnerable adults

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
- Have processes and arrangements in place for the safeguarding of children and vulnerable adults

## 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
- Consider the need for safeguarding of children and vulnerable adults
- 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 - Non-specialist personnel inadvertently attending a marauding terrorist attack

---

### Hazard Knowledge

Marauding terrorist attacks (MTA) are fast-moving, violent incidents where attackers move through a location aiming to find and kill or injure as many people as possible; they usually occur without any notice or warning.

During the initial stages of an MTA, it is possible that fire and rescue service personnel arrive on-



scene in the belief that they have been mobilised to a non-malicious incident. Although they may feel under moral pressure to assist members of the public, staying on-scene could lead to the death or injury of personnel.

An MTA may include a wide range or combination of methodologies, from lower sophistication to higher complexity attacks. This could involve one or more of the following attack methodologies:

- Bladed weapon
- Vehicle as a weapon
- Fire as a weapon
- Improvised explosive devices (IEDs) or grenades
- Firearms
- Siege, including the taking of hostages to prolong an attack or impede rescue operations
- Chemicals, such as acids or alkalis

MTAs may include a combination of approaches, such as:

- A lone attacker, multiple attackers or multiple groups of attackers
- Arrival at a location on foot, in a vehicle or an attack perpetrated by insiders
- Entering a location without using force, or forcing entry using an IED, a vehicle, coercion of someone with access to the location, or a combination of these actions

In the initial stages of an MTA, it will be extremely difficult to get an accurate picture of what is happening. It may take some time to confirm that the incident is a determined attack involving a single or multiple attackers.

It may be difficult to determine the location and number of attackers, or even to determine who they are in a crowd of people. It is feasible that the emergency services have been purposefully lured to the location as targets for the attackers.



## Control measure - Apply the JESIP 'STAY SAFE' principles

---

### Control measure knowledge

Personnel who have not been trained to respond to a marauding terrorist attack (MTA) should take appropriate action if they inadvertently attend a suspected MTA incident. If this is realised soon enough and it is safe to do so, personnel should withdraw immediately to a place of safety and

notify the fire control room.

If personnel are unable to withdraw, they should consider their own safety and that of other emergency responders and the public when applying the [JESIP 'STAY SAFE' principles for non-specialist responders](#), in order to:

- See
- Tell
- Act

The 'Tell' element of the principles includes communicating with the fire control room, ideally using the [JESIP M/ETHANE model](#). This will enable the fire control room to:

- Appropriately control further mobilisation to the hazard area
- Relay the M/ETHANE information to the police
- Gain an understanding of the numbers and location of personnel involved in the incident
- Contact the duty National Inter-agency Liaison Officer (NILO)

As the police will assume control of an MTA incident, personnel should follow any advice or instructions provided by the police, either via the fire control room or from on-scene police officers.

The fire control room should determine if any personnel are en route to or attending other incidents in the area, that could become involved. If so, they should immediately notify the commanders of those incidents so that they can consider using alternative access or egress routes to avoid the suspected MTA incident.

The fire control room should keep commanders of other nearby incidents updated, so that they can determine the necessity to carry out a tactical withdrawal of responders.

The fire control room should also notify the police about any fire and rescue service resources that are en route to or attending other incidents in the area.

If safe to do so, personnel should encourage other people to follow the [JESIP 'STAY SAFE' public advice](#) to:

- Run
- Hide
- Tell

## Strategic actions

Fire and rescue services should:

- Ensure that all operational and fire control personnel have access to the current JESIP 'STAY SAFE' principles for non-specialist responders
- Ensure that all operational and fire control personnel have access to the current JESIP 'STAY SAFE' public advice
- Consider participating in multi-agency training and exercises for MTA incidents

## Tactical actions

All personnel should:

- Immediately notify the incident commander or the fire control room if they suspect the incident is an MTA
- If safe to do so, withdraw to a place of safety and notify the fire control room of their location
- Consider their own safety and that of other emergency responders and the public when applying the JESIP 'STAY SAFE' principles for non-specialist responders
- If safe to do so, encourage other people to follow the JESIP 'STAY SAFE' public advice
- Follow any advice or instructions provided by the police, either via the fire control room or by on-scene police officers

Fire control personnel should:

- Appropriately control further mobilisation to the hazard area
- Relay M/ETHANE messages to the police control room
- Gather information about the numbers and location of personnel involved in the incident
- Contact the duty National Inter-agency Liaison Officer (NILO)

- Relay advice or instructions provided by the police to the on-scene incident commander
- Notify commanders en route to or attending nearby incidents about a suspected MTA incident and its location
- Make the police aware of fire and rescue service resources that are en route to or attending nearby incidents



## 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
- Biological hazards (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. Lone working of personnel should not be allowed if there is a risk of public disorder.

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 equipment and vehicles during public disorder



## Control measure - Withdrawal from public disorder

---

### Control measure knowledge

It may be feasible to plan for known areas or events where public disorder has previously occurred, or may be predicted to occur. 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.

Incident commanders should maintain situational awareness, including changes in the behaviour of members of the public gathered at the scene. For example, a sudden dispersal of a crowd may precede a planned attack on emergency services or escalation in the disorder.

The incident commander should consider requesting the advice or assistance of the National Inter-agency Liaison Officer (NILO).

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, for example in clear sight of egress and facing the route away from the scene. It may 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
- Consider requesting advice or assistance from the National Inter-agency Liaison Officer (NILO)
- Maintain situational awareness with regard to the behaviour and movement of members of the public gathered at the scene
- 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 when closing an incident

---

### Hazard Knowledge

The responsibilities of the incident commander for managing operational resources continue through the closing stages of an incident.

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 - Communicate the availability of resources

---

### Control measure knowledge

Effective communication is important at all incidents. Accurate information should pass between the incident commander, personnel and the fire control room. The incident commander also has a duty to make sure messages and information are exchanged with the fire control room to enable them to maintain and record an accurate picture of an incident and the availability of operational resources.

Incident commanders should consider whether vehicles can remain at the incident ground, while being available for deployment to other incidents. This decision should be made following a risk assessment and the fire control room should be informed of any availability status change. The personnel of available vehicles at incidents should be informed and deployed only in accordance with their current status.

The fire control room 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 the fire control room in determining covering moves, or the reallocation of resources from one incident to another.

The decision to release resources should consider operational priorities, the length of time

personnel have been deployed at the incident, and their roles.

## Strategic actions

Fire and rescue services should:

- Ensure that systems enable real-time recording of the status of operational resources, including fire and rescue service vehicles and personnel

## Tactical actions

Incident commanders should:

- Regularly update the fire control room on the availability status of operational resources
- Consider whether operational resources can be released from the incident

Fire control personnel should:

- Identify the availability of operational resources when considering redeployments



## Control measure - Manage, inspect and test equipment

---

### Control measure knowledge

At the conclusion of an incident vehicles 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 or decontamination of equipment should be completed and the vehicle 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, the fire control room should be informed. The appliance commander is

responsible for all personnel and equipment stowed on their vehicle.

It may be necessary to leave in place any cordons or signage to provide warnings of residual hazards. The details of this should be recorded, and if appropriate and feasible the equipment should be recovered at a later time.

## 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:

- Conduct an inventory check and record any defects or deficiencies
- Ensure equipment receives appropriate after use inspection and testing before changing its availability status
- Record details of any equipment intentionally left at the incident ground, and schedule collection of it at an appropriate time
- Consider decontamination of personnel, PPE and equipment prior to redeployment
- Consider the condition and serviceability of PPE when assessing operational readiness for redeployment



**Hazard - Failing to leave the incident ground in a safe state**

---

## Hazard Knowledge

At the closure of the response phase to some operational incidents, residual hazards may exist that could cause harm to others if not properly managed. Ideally, the fire and rescue service should not leave without addressing residual hazards. However, there may be some exceptions to this, for example if there is widespread flooding that cannot be resolved.

There may be control measures implemented by the fire and rescue service to reduce risk that will need to be maintained post-incident. These could include immediate threats to safety, security of premises or environmental risks.

It is possible that hazards may not present themselves for some time after fire and rescue service activities have ceased. This could include:

- Reignition of fires
- Collapse of structures
- Unstable natural environment
- Harm to public health
- Damage to the environment

Failing to carry out an appropriate handover to the responsible person, or leaving the incident ground prematurely, could leave behind hazards that are unmanaged or unknown. These residual hazards could result in accidents or injuries.



## Control measure - Make an effective handover to the responsible person

---

### Control measure knowledge

At the closing stages of the incident, the responsibility for the health and safety of the site must be handed over to the appropriate person. The reference to a 'safe state' does not imply that hazards no longer exist, but that interim or permanent control measures are in place to manage them. Knowledge of these should be handed over to the person responsible for their future management.

In the closing stages, important factors include:

- Risk management

- Transfer of health and safety issues to an appropriate person
- Welfare of people and teams
- Arranging or managing all relevant investigations
- Other post-incident considerations

Competent management of the closure of the incident is as important as the initial actions on arrival at an incident; this includes:

- Facilitating appropriate handovers as the incident reduces in size
- Continued vigilance regarding the hazards that continue to exist or may present themselves after fire and rescue service activities have ceased
- Ensuring that site occupiers, neighbours and others who have been, or may be, affected by the incident are kept appropriately informed

At some incidents a responsible person or body will be present to whom the management of these risks can be transferred. The risks may have a wider impact on the public or occupiers of neighbouring premises. There could also be no obvious way of maintaining control measures after fire and rescue service resources leave the incident.

Before finally closing an incident and removing all fire and rescue service resources, the incident commander should consider the following points for their handover:

- The need to inform those affected by an incident, such as the responsible person and neighbours that fire and rescue service operations have concluded
- Inform relevant people of any remaining hazards, which includes potential environmental hazards caused by fire and rescue service operations
- Any security issues
- Any fire protection or prevention issues
- The need to leave in place any cordons or signage to provide warnings of residual hazards
- The need to seek specialist advice regarding impacts, or potential impacts, of the incident such as to health and safety, structures or the environment
- Ensure the fire control room are advised that the incident is being closed and given the status of the resources being removed

Where there is a responsible person or body a formal handover of responsibility for the management of risk should be undertaken and a record made; this record may include the following:

- Responsible person's details and time and date of the handover
- Identification of hazards and measures to ensure health and safety arrangements are maintained
- Security issues, particularly where premises are left vulnerable, and who is accepting



responsibility

- Logging decisions made by the incident commander
- Formal acceptance of responsibility by the responsible person

The fire and rescue service may need to secure the personal property of people involved in the incident and ensure that these are handed over to the appropriate authorities. A record should be made of items recovered by the fire and rescue service and to whom these were handed prior to leaving the incident.

## Strategic actions

Fire and rescue services should:

- Have procedures for handing over responsibility for the safe management of incidents to a responsible person or body
- Have procedures to secure premises and maintain control measures at incidents where no responsible person can be identified

## Tactical actions

Incident commanders should:

- Report any safety critical issues to every person affected by the incident before leaving the scene
- Consider leaving in place cordons or signage to warn of residual hazards
- Consider seeking specialist advice for any impacts, or potential impacts, of the incident
- Take measures to secure premises where no responsible person can be identified
- Ensure that hazards, potential hazards and control measures are identified when handing over responsibility for health and safety to the responsible person
- Provide updates to the fire control room about closure of the incident and the status of resources
- Inform the responsible person when fire and rescue service activities are completed and all

personnel are at a place of safety



## Control measure - Consider community recovery

---

### Control measure knowledge

Supporting communities in the recovery phase of an incident is a key consideration for fire and rescue services whether this involves individuals, families or has a wider impact. The recovery phase should begin at the earliest opportunity following the onset of an emergency, running in tandem with the response to the emergency. Services should work with local partner agencies to develop protocols for community recovery arrangements. Incident commanders should consider what actions can be taken to promote community recovery before leaving the incident and refer people involved to appropriate agencies.

Refer to [Emergency response and recovery: Non statutory guidance accompanying the Civil Contingencies Act](#)

### Strategic actions

Fire and rescue services should:

- Work with local partner agencies to develop procedures for instigating community recovery protocols
- Have procedures to support incident commanders in identifying agencies that can promote community recovery

### Tactical actions

Incident commanders should:

- Promote community recovery and restore normal operations
- Liaise with statutory resilience forums and partner agencies at the earliest opportunity
- Consider community recovery protocols and arrange appropriate assistance prior to leaving the incident
- Protect Critical National Infrastructure and/or local critical infrastructure



## Hazard - Compromised investigations: Poor scene preservation

---

### 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 - Secure the scene for investigation

---

### 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. Keeping a record of any 'foreign objects' taken into the scene by personnel may help to eliminate such items from an investigation.

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.

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.

When fire and rescue service operations are complete, the responsibility for the security of an incident, property and contents will pass to the police or statutory investigation team.

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.

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:

- Procure equipment or other supplies that may assist with securing the scene
- Have a record of the equipment issued to personnel, so that it can be eliminated from an 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, so that these can be avoided
- Minimise the number of personnel allowed into the scene
- Minimise the potential for 'foreign objects' to be taken into the scene

- Preserve the scene for future investigations
- Hand over responsibility for the security of premises and removed items to the responsible person or the police



## Control measure - Preserve evidence for investigation

---

### Control measure knowledge

Fires, floods or other emergencies can destroy or significantly alter structures, vehicles and objects; key evidence may be lost before the fire and rescue service arrives.

An ongoing incident and the actions of responders can affect evidence required for an investigation. The aim of personnel should be to ensure evidence is not destroyed or disturbed where possible. On arrival, consideration should be given to:

- How fire and rescue service activity may affect any subsequent investigation
- Identifying and prioritising the preservation of evidence that may deteriorate
- Minimising contamination of the scene

If the scene needs to be examined as part of a criminal investigation, it should be carefully preserved to protect evidence. The unintended consequence of simple actions such as washing down equipment after an incident may destroy or damage evidence.

Where evidence cannot be preserved physically, information to support investigations should be captured in other forms. For example, physical evidence noted on arrival, such as broken windows or suspected remains of incendiary devices, should be documented and photographed if feasible.

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. It may be appropriate for the task of collecting physical evidence to be allocated to a police crime scene investigator or fire and rescue service investigator.

It may be necessary to cover windows, doorways or other apertures that allow people to see into the scene inside a building or other structure. For other types of incident scenes, the use of tarpaulins may help to preserve evidence from exposure to the elements.

The decision to leave identified physical evidence at the scene should be carefully considered. To assist with an investigation, if it is essential to move anything, a record of observations should be kept, including details of actions taken and the reason for doing so.

If evidence may be lost if left in place, the fire and rescue service should consider seizing it. There should be a secure storage area in which to keep it, and service procedures for its collection and handling.

Care is needed where insurance claims may be made, as ownership of the property may transfer to the insurance company.

Incident commanders should confirm:

- All information relating to the incident
- Age, gender, name and contact details of the deceased, casualties and witnesses
- Whether life has been confirmed extinct if there is a deceased casualty at the scene
- Details of any agencies in attendance, such as utility companies
- 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 and rescue service vehicle call signs
- Whether personnel have recently attended similar incidents, in case of cross-contamination

Other sources of information, may include:

- CCTV footage from:
  - Emergency responder vehicles
  - Body worn cameras
  - Buildings
  - Control rooms
- Fire or intruder alarm systems at the scene, including any remote, offsite recording systems
- Photographs, videos or voice recordings of the incident, including those:
  - Captured by personnel
  - Captured by witnesses
  - Downloaded to local news sites or social media sites

### **Recovery of casualties and their personal property**

If surviving or deceased casualties need to be moved or removed, care should be taken to ensure that their personal property is kept with them. If this is not possible, a record should be kept of the location of items; it may be useful to photograph the items before the casualty is recovered.

The positions of deceased casualties are extremely important for identification purposes and to

help establish cause of death. 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 other casualties, or to prevent the bodies being destroyed by fire or other event. 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.

Personnel who have moved bodies should be questioned and make a statement as soon as possible after the incident, to improve the accuracy of their recall. 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, may result in them being distributed over a wide area.

Any personal property that fall from the casualty or body while they are 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.

Bodies that have been badly burnt become brittle and require careful handling by trained personnel so as to avoid vital evidence of identification or cause of death being destroyed.

It may be useful for photographs or video to be taken of the scene of the incident and the position of the bodies. This can also assist in debriefing purposes.

## **Strategic actions**

Fire and rescue services should:

- Develop a joint understanding with other emergency services and agencies regarding the actions required to preserve evidence at the scene of an incident
- Provide equipment or other supplies that may assist personnel in preserving evidence
- Have the ability to securely collect and store any seized evidence

## **Tactical actions**

Incident commanders should:

- Consider preservation of evidence when planning, communicating and implementing tactics



- Consider requesting assistance from a police crime scene investigator or fire and rescue service investigator for collecting physical evidence
- Consider moving physical evidence to a safe place, away from the effects of the fire or firefighting
- Consider seizing evidence if it may be lost if left in place
- Avoid movement of dials, valves and controls or record original position for investigation purposes
- Gather and record information about physical evidence
- Note issues relating to cordons or physical evidence in the decision log
- Notify investigators if personnel have recently attended similar incidents, which could result in cross-contamination of an investigation scene



## Hazard - Compromised investigations: Ineffective or inappropriate actions

---

### Hazard Knowledge

If a fire and rescue service does not apply due diligence to investigations, it may result in:

- Failure of an investigation
- Failing to hand the investigation over to the appropriate agency
- Delayed handover of the investigation to the appropriate agency
- Reputational damage
- Corporate liability
- Inability to learn lessons in order to:
  - Inform future learning
  - Develop fire and rescue service policies to reduce risk
  - Improve community risk

### Handover of an investigation scene

The handover of the scene between agencies, notably after fire and rescue service operations, is an important stage. If cordon control or scene management practices are reduced or neglected during the transition, there is greater potential for evidence to be lost or compromised.

The fire and rescue service may be keen to remove any equipment that is still deployed. However, to avoid further impact on remaining evidence, this should not take place until the scene has been inspected by the agency taking over. It is also possible that the agency taking over the scene may require some of the fire and rescue service equipment to remain in place.

### **Record-keeping**

Without good record-keeping, which complies with legislation and regulations, evidence may be challenged or deemed inadmissible



## Control measure - Conduct or support investigations

---

### **Control measure knowledge**

At any time during or after an operational incident there may be a need to carry out some form of investigation. The types of post-incident investigations include:

- Fire investigation:
  - Cause of fire
  - Fire safety effectiveness
- Health and safety event investigation, such as:
  - Accident
  - Near miss or hit
  - Cause for concern
- Criminal investigation
- Transport-related investigation

Investigations may be carried out by:

- Fire and rescue services
- Police
- Health and safety regulatory bodies
- Environmental agencies



- Local authorities
- Transport enforcing authorities, such as:
  - [Air Accidents Investigation Branch](#)
  - [Rail Accident Investigation Branch](#)
  - [Marine Accident Investigation Branch](#)
- Legal proceedings

Conducting or supporting an investigation should be at the forefront of an incident commander's mind during the dynamic phases of an incident and during post-incident activity. 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.

During any investigation, consideration should be given to 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 topic should be included when establishing arrangements for multi-agency investigations.

To ensure that the correct level of investigation is instigated or undertaken, personnel should understand which agencies are responsible for investigations of various types and levels.

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 investigation. To achieve this successfully will require pre-planning and good scene and investigation management practices. Refer to the JESIP publication, [Joint Doctrine: the interoperability framework](#).

The police are responsible for investigating suspected crimes that include 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 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.

### **Work-related fatalities**

Where there is a work-related fatality the appropriate procedures should be followed. Health and Safety Executive (HSE) guidance includes:

- [The Work-related Death Protocol for England and Wales](#)
- [Work-related deaths: A protocol for liaison \(Scotland\)](#)
- The Investigation of Work-Related Deaths: Northern Ireland Agreement for Liaison

These are multi-agency agreements that the fire and rescue service and other organisations need to abide by when participating in investigations into work-related deaths.

### **Firefighter fatalities**

In the event of a firefighter fatality, fire and rescue services should also refer to the information available in the [National Fire Chiefs Council, Death in the Workplace Guidance](#).

### **Investigating a fire and rescue service**

The police, Health and Safety Executive (HSE), Health and Safety Executive Northern Ireland (HSENI) or other agencies may be required to investigate the actions of a fire and rescue service that 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, regardless of who they have been appointed by, can be given access to the facilities and information they require. The use of independent investigators may be required if there is the potential for a real or perceived conflict of interest for the fire and rescue service to carry out their own investigation.

### **Fire and rescue service equipment accidents or faults**

If there has been a fault in fire and rescue service equipment, or if using it has resulted in an accident, there should be an investigation. The relevant department in the fire and rescue service, such as a health and safety department, should be notified. The equipment in question should be preserved for investigation and not put back in use until the correct service procedures have been completed.

### **Handover of an investigation**

The handover phase of an investigation may take place directly at the scene or at a later stage, when all the on-scene work has been completed. The nature of a handover will be influenced by the type or level of the investigation, and range from a formal and documented handover to a verbal briefing.

Where a statutory or other agency 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-scene handover or maintenance of scene security. Most commonly, this category includes investigators employed by, or acting on behalf of, insurers.

When the agency or individual taking over the scene does not have a statutory role, the fire and rescue service should satisfy itself that it is appropriate for them to take responsibility for the scene.

The handover should include:

- Incident history, including the actions of the fire and rescue service, members of the public or other emergency responders
- Facts relevant to the investigation, including the methodology and actions taken
- Safety issues, such as risk assessment findings
- Other issues that may have had an impact on the scene or be of relevance to the investigation, such as 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 need to be provided to them.

Handing over the scene or investigation may not be the end of fire and rescue service involvement as they may still need to provide support. In this case, fire and rescue service personnel should make themselves familiar with the working protocols of the lead agency.

### **Multi-agency investigations**

Investigations may require several agencies to work together. Where possible, a lead agency should have overall responsibility, although this may not always be feasible as roles may change during 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 should also be agreed at this stage. In some 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 competences and areas of specialist knowledge of the individuals in the team, and the role they will play in the investigation.

Other agencies may be involved for a limited time to perform specific tasks without being part of the investigation. The nature of their involvement, details of who was involved, and any impact on evidential material should be recorded.

## **Liaison**

Scene-based liaison will often tie in to existing local protocols and incident management systems, particularly with statutory agencies 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 evidence or the investigation due to a lack of formal records.

Where the details of other agencies or individuals are not known at the time, it can be useful to have a generic 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 a joint understanding with other emergency services and agencies regarding the roles and responsibilities for investigations
- Establish arrangements with other emergency services and agencies for the handover of an investigation scene
- Develop appropriate memorandums of understanding (MoU) for investigations with key partners

- Keep accurate records of the agencies and individuals involved in the investigation

## Tactical actions

Incident commanders should:

- Report the potential requirement for an investigation
- Support and co-operate with investigations
- Protect the personal rights of individuals subject to or involved in the investigation
- Hand over responsibility for removed items and security of premises to the responsible person or the police
- Liaise with the police and local authority support teams at incidents involving serious injury and fatalities



## Control measure - Accurate record-keeping

---

### 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 investigations and statistical content.

Good record-keeping is particularly important in any investigation. Log books can be used for effective and methodical data gathering; this could take the form of a contemporaneous notebook that can be referred to when providing evidence in court. All personnel should be aware that they may be required to give statements.

Accurate records and statements may come from a number of sources, including:

- Written logs made by the fire control room
- Voice recording of critical messages or calls

- Photographs or videos made by personnel
- Security photographs or videos from on-site equipment or CCTV

As some security systems will overwrite recordings, there should not be a delay in obtaining copies of any photographs or videos.

Written reports can consist of:

- Informal contemporaneous notes:
  - Made at the time of an incident or event, or as soon as practicable, while 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, such as photographing breathing apparatus (BA) entry control boards
  - 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 notebooks, 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

All types of records should be signed and dated by the person creating them to enable their use within a formal legal context if required.

Decision logs can also be used to maintain a record of decisions and rationale for actions. Recording evidential material and the processes followed can be very important for formal investigations.

Witness statements, including those of attending personnel, should be made. Fire and rescue services may decide to use a template approach to ensure witness statements form an objective and personal recollection of events, rather than opinions or unfounded conclusions. The names and location of witnesses should be obtained and recorded for interviews. It may be necessary or appropriate to start interviewing during an incident.

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:

- Provide a means of capturing and securing records, statements and other evidence
- Ensure record-keeping complies with current legislation or regulations

## Tactical actions

Incident commanders should:

- Record all relevant incident information in an appropriate format
- Collate and secure records from the incident and witness statements
- Record statements from relevant people as soon as practicable
- Keep decision logs, that include a record of decisions and the rationale for actions
- Participate in debriefings that form part of an investigation