National Operational Guidance – Operations first edition version two (ARCHIVED on 20-12-2016)

Introduction

The structure of this guidance follows the style and format of the fire and rescue service National Operational Guidance Programme. It relates to specific hazard and control measures following a literature review. The control statements support a fire and rescue service in developing policies and procedures that deliver the 'safe person concept' at all incidents.

This guidance supports fire and rescue authorities in putting a robust emergency response in place for all incidents. It is an essential part of the safe systems of work needed, from the point of receiving a call to considering learning after the incident closes.

In this document the term 'Incident' means any event where a fire and rescue service receives a call for help that results in an electronic record being created. An emergency resource does not have to be deployed in response to the call.

Operational response is hazardous and firefighters respond to thousands of incidents, across a wide variety of types, each year. Only simple actions and procedures are needed for some incidents to be dealt with safely as risks are low. Others are more challenging, and may quickly increase in size, complexity and duration. This guidance specifically deals with the hazards present at all incidents. The guidance provides a number of potential control measures – fire and rescue services can build on these according to their local risk assessment.

The hazards identified in this document could cause harm to the organisation, to fire and rescue service personnel or the community in which they operate.

Fire and rescue service responsibilities

The Fire and Rescue Services Act 2004

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

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

Similar provisions exist within the Fire Scotland Act 2005 and the Fire and Rescue Services (Northern Ireland) Order 2006.

Health and Safety at Work, etc. Act 1974

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

has a duty to take reasonable care for the health and safety of him/her self and of other persons who may be affected by his/her acts or omissions at work.

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

Management of Health and Safety at Work Regulations 1999

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

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

Safety Representatives and Safety Committees Regulations 1977 (as amended) and Codes of Practice provide a legal framework for employers and trade unions to reach agreement on arrangements for health and safety representatives and health and safety committees to operate in their workplace.

Health and Safety (Consultation with Employees) Regulations 1996 (as amended), sets out the legal framework that will apply if employers have employees who are not covered by representatives appointed by recognised trade unions.

Control of Substances Hazardous to Health Regulations 2002

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

Dangerous Substances and Explosive Atmospheres Regulations 2002

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

Confined Spaces Regulations 1997

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

The Work at Height Regulation 2005 (as amended)

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

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

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

Data Protection Act 1998

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

Fire and Rescue National Framework

There are national frameworks for England, Wales and Scotland. Their purpose is to provide strategic direction without specifying the method of delivery. The document encourages the communities to set the local direction.

Risk Management Plan

Each fire and rescue authority has to decide their strategic direction through their risk management plan and their adoptive powers under the Fire and Rescue Services Act 2004, or their equivalents in the devolved administrations. Strategic managers will consider their statutory duties and the foreseeable risk within their area to determine the extent of their firefighting capability. Work to

identify risk and prepare operational plans should be carried out in association with the local resilience forum and the relevant section of the fire and rescue service's IRMP or risk management plan.

Hazard and control statement

Hazard	Control measures
Equipment failure	Provide multiple communications bearers
	Provide a critical contact number
	Establish an alternative fire control facility
	Provide hard copy for call processing information
	Provide IT support
	Consider Direct Electronic Incident Transfer (DEIT) / Multi Agency Incident Transfer (MAIT)
Failure to handle emergency calls and mobilise resources in a timely manner	Salutations
	Use EISEC/CLI
	Use GIS
	Use AVLS
	Use Text Relay Service (previously Text Direct)
	Use an interpreting call handling agency
	Record call details
	Use the communications or mobilising system recording facility
	Use the mobilising system premises based property gazetteer
	Undertake incident typing
	Prompt call information (ECM)
Loss of data relevant to emergency control room operations	Use the mobilising and communication system
	Follow the Standard Message Process
Impaired mental and physical ability caused by alert/notification to respond	Monitor health and fatigue
	Maintain situational awareness
	Wear safe clothing and footwear on call
	Provide a safe environment
Road traffic collisions	Encourage safe drivers and safe passengers
	Ensure safe vehicles
Mobilised resources failed or delayed attendance at incidents	Ensure reliable and efficient transport and communication arrangements

Incident related hazards en route to and on attendance at the incident.	Ensure appropriate mobilising and a safe and controlled approach to the incident
Failure to identify foreseeable risk	Fulfil legislative responsibilities Produce a risk management plan Produce Site-Specific Risk Information Produce emergency response plans Consider National Guidance
Failure to receive accurate, timely and relevant information	Follow emergency call management procedures Adopt an information management methodology Engage subject matter experts /Responsible or Competent Persons Consider non-technical skills
Failure to access the information	Use information management systems Secure access Use non-technical skills
Failure to interpret the information	Use common terminology and symbology Consider non-technical skills and situational awareness Establish spans of control
Failure to transfer information	Establish a common operating picture Make an assessment of Risk (GRA, DRA, ARA, JDRA) Hold operational and tactical briefs Record decisions
Failure to review information	Establish an assurance process Manage performance
Failure to record information	Take legislative duties into account Use national incident recording systems (IRS) Use debrief management systems
Failure to share information	Consider intra-operability and interoperability Liaise with local resilience forums
Physical hazards	Undertake pre-planning

	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)
	Have a robust incident command structure
	Maintain situational awareness
Biological hazards	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)
	Have a robust incident command structure
	Ensure effective situational awareness
	Follow the safe person concept
	Follow post-incident protocols
Chemical hazards	Identify the hazard
	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)
	Have a robust incident command structure
	Ensure effective situational awareness
	Follow post-incident protocols
Psychological hazards.	Undertake pre-planning
	Have a robust incident command structure
	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Communicate
	Ensure effective situational awareness

	Follow the safe person concept
	Consider welfare
	Follow post-incident protocols
Closing an incident too early	Have a robust incident command structure
	Consider competency
Relaxation of command and control during 'make up' operations	Have effective organisation on the incident ground
	Have appropriate safety management
Failure to share information	Have a communication strategy
Failure to make resources ready for redeployment or otherwise before leaving the incident ground	Communicate effectively
	Consider welfare
	Ensure effective organisation of the incident ground
	Manage inspect and test equipment
	Wear personal protective equipment (PPE)
Failing to leave the incident ground in a safe state.	Make an effective handover to the Responsible Person
Failing to identify and communicate learning opportunities.	Hold debriefing/post incident reviews

Emergency fire control operations

Equipment failure

Hazard:	Control measures
Equipment failure	Provide multiple communications bearers
	Provide a critical contact number
	Establish an alternative fire control facility
	Consider Direct Electronic Incident Transfer (DEIT) and Multi Agency Incident Transfer (MAIT)
	Provide hard copy for call processing information
	Provide IT support

Hazard knowledge

Equipment failure in the control room can take several forms, including call handling equipment, mobilising equipment and software or communications equipment between fire control rooms and operational resources.

Fire and rescue service resources are mobilised through a number of separate software applications and hardware systems. In addition the various methods of communication rely on both software and hardware systems. These systems should be regularly maintained to ensure they are readily available for emergency calls handling and mobilising.

Call handling equipment failure

All fire and rescue services are responsible for providing the means of receiving emergency calls (Fire and Rescue Services Act 2004) and keeping the person responsible for liaising with the call handling agency on the 999/112 service (the '999/112 liaison point') informed of the equipment and the public switch telephone network (PSTN) connections used in every fire and rescue service control room. To support any unforeseen situation, fire and rescue services must provide equipment that is capable of functioning at all times. The system should be capable of operating through unplanned events such as telephone exchange failure, power failure or hardware failure. The number of calls being received should not prevent emergency calls from being connected to a control room operator. Three separate routes should be provided for the call handling agency to contact the fire and rescue service. The secondary and tertiary routes would normally only be used in the event of an unusually high level of calls or a fault on the primary line. Fire and rescue services should reserve primary lines exclusively for receiving 999/112 calls. A code of practice, known as the Code of Practice for the Public Emergency Call Service (PECS) exists between the emergency services and the call handling agencies to ensure best practice for a quick response to emergency calls. This code of practice is constantly under review by the 999 liaison committee which is chaired by the Fire Policy Unit of the Department for Communities and Local Government (DCLG)

Mobilising equipment failure

The main function of the mobilising system is to aid in recording call information and dispatching the selected resources. Secondary functions include displaying alarm conditions for the system and generating statistical information.

When an incident type and address is entered the system will interrogate its database to match the address information. It may also search for risks, duplicate incidents, telephone kiosks, map references, historical data and so on, to provide the operator with as much information as possible. When an address match is made the operator is presented with a pre-determined attendance from the address-based gazetteer. The system makes recommendations, which can be overridden by the operator. The mobilising system also maintains a log for each incident, recording all times and actions associated with that incident.

The mobilising system will also include an interface with remote equipment so that turnout messages can be transmitted. These messages can be sent to resources in a number of ways – for example, data messages may be sent to a computer located in a fire station or other location where resources may be based, even temporarily. Data links between the mobilising system and the

station-end equipment can be provided in a number of ways, such as the wide area network and the Public Switched Telephone Network. Multiple bearers are usually employed for resilience.

In the same way that multiple bearers provide resilience against failure in communication routes, data storage and transfer should have in built resilience and disaster recovery. Industry standards for this are constantly being updated as technology progresses.

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

Communications equipment failure

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

- Provide clear audio and visual distinction between emergency and non-emergency telephone calls and radio traffic
- Queue telephony traffic and present priority calls at the top of the queue.
- Provide an indicator to control room operators as to how long a call has been in a queue.
- Manage radio traffic
- Direct certain telephone call types or call priorities to certain workstations
- Redirect these calls if there is no one available to answer them or they are not answered within a certain time (Automatic Call Distribution – ACD)
- Allow supervisors to audio monitor calls
- Allow supervisors to eavesdrop calls and messages
- Record and provide instant playback of calls
- Manage radio assets
- Serve more than one control room e.g. a collaboration

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

Control measure – Provide multiple communication bearers

Control measure knowledge

It is foreseeable that single communication lines such as the PSTN could fail temporarily. Where this is the case it is vital that the call handling agency can still quickly connect an emergency call to fire control room. It is less likely, but still foreseeable, that any alternative line of communications could also fail.

A number of possible routes of communication are available to connect a call handling agency to an emergency control room. These include fixed private wire systems, public telephone systems, voice over internet provider systems and mobile communication systems. As with all technological solutions the means for communicating are changing all the time.

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

(PECS Code of Practice, January 2011)

In the same way as lines between call handling agencies and fire control rooms should be duplicated, it is also possible to provide multiple bearers for the mobilising system and communications system.

The mobilisation message to a fire station can be via the fire and rescue services wide area network, PSTN, private wire or mobile network. When considering back up bearers it is good practice to spread the risk across more than one of these bearer types.

With communications to resources, which are not at a fire station, a nationally procured solution is currently used for the main communications bearer. However, data and voice traffic can also be passed by mobile or satellite networks. This again spreads the risk of failure and ensures fire and rescue services can meet their duties (Fire and Rescue Services Act 2004).

Control measure actions

Fire and rescue services should:

- Ensure they are aware of current good practice in providing communications lines between call handling agencies and the fire control room and between fire control rooms and operational resources
- Ensure they have three routes into the fire control room and that at least one of these uses a separate network from the others. They should also consider multiple bearers for mobilising systems and communications.

Control measure – Provide a critical contact number

Control measure knowledge

For problems to be resolved quickly it is important for the call handling agency and the fire control room manager to be able to communicate. This will be undertaken where call volume is high, call handling times are significantly longer than usual or the call handling agency has staffing problems.

(PECS Code of Practice, January 2011)

Control measure actions

Fire and rescue services should:

- Provide a specific number for call handling agency managers to contact fire and rescue service control supervisory managers, when there are any emergency call handling problems such as call surges, call answering times, staffing difficulties and other problems, so that corrective actions can be agreed

- Enter into agreements with other fire and rescue services to accept calls from call handling agency managers where the call handling agency manager is unable to get a response from the critical contact number

 (Code of Practice for the Public Emergency Call Service 2009 V1.5 2011)

Control measure – Establish an alternative fire control facility

Control measure knowledge

Control mobilising systems incorporate a number of levels of resilience. Duplicated computer systems and fall back bearers each add their own levels of security to the system, as does the ability to alert crews locally from stations.

These facilities do not, however, cater for the rare possibility of having to evacuate the main control room. Where this occurs, a fire and rescue service should have in place a means to continue to receive emergency calls and mobilise resources. This can be achieved by having a secondary location from where the fire control function can be quickly re-established or by entering into an agreement with another organisation to temporarily take over these duties.

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

Secondary control facilities should be capable of receiving emergency and other incoming and outgoing calls, mobilising resources and operating the main scheme radio at a location that would not be affected by any disruption to services provided at the main control. This may necessitate establishing the secondary control with emergency telephone lines from a different exchange to those of the main control.

Control measure actions

Fire and rescue services should:

- Have policies in place to allow all emergency call management and mobilising functions to continue in the event of a catastrophic failure of the fire control room
- Where the policy is to be facilitated by a third party, consider entering a formal contract to ensure any standards are able to be met

Control measure – Consider Direct Electronic Incident Transfer (DEIT) /Multi Agency Incident Transfer (MAIT)

Control measure knowledge

The Highways Agency and some police forces use Direct Electronic Incident Transfer (DEIT) to send key incident details to each other's mobilising systems electronically. DEIT uses protocols to facilitate interoperability between mobilising systems from different manufacturers.

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

www.bapco.org.uk/.../2013_11_mait_british_apco_update_v1.0.pdf

standards.data.gov.uk/challenge/multi-agency-incident-transfer

(PECS Code of Practice, Draft 4, March 2014)

Control measure actions

Fire and rescue services should:

Consider the introduction of DEIT as part of their resilient control room policies.

Control measure – Provide hard copy for call processing information

Control measure knowledge

High standards of resilience mean that the likelihood of needing to record call information in hard copy is very slim. However, this way of working has been used during spate conditions, when receiving an influx of calls that have no life risk. In the event of a system failure, it is good practice for fire and rescue services to have the facility to record all incident details and to have information on the correct type of resource to be mobilised along with risk information for any incident.

This can be done through various methods such as tablets, stand-alone computers or paper systems.

Control measure actions

Fire and rescue services should:

- Maintain a means to temporarily record emergency calls and operational information on hard copy
- Have a procedure in place to ensure that when systems return to normal any hard copy data is recorded in the mobilising system

Control measure – Provide IT support

Control measure knowledge

Communications and information systems and the hardware that supports them are complex. It is likely that some or all of these systems may periodically fail. These failures may have an impact on the control room operator's ability to mobilise the most appropriate resource quickly. Further support for resilience planning and control room equipment security may be considered good practice. Maintaining the efficiency of systems should be an ongoing process, to ensure they are performing to the highest standard and that all mobilising data displayed is current.

As part of the specification, fire and rescue services may consider having system suppliers deliver professional training on all equipment. This may include customised courses for essential users and first line maintenance courses for control room managers so they can work alongside system engineers when a problem occurs.

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

Control measure actions

Fire and rescue services should:

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

Failure to handle emergency calls and mobilise resources in a timely manner

Hazard	Control measures
Failure to handle emergency calls and mobilise resources in a timely manner	Consider salutations
	Use EISEC/CLI
	Use GIS
	Use AVLS
	Use Text Relay Service (previously Text Direct)
	Use an interpreting call handling agency
	Record call details
	Use the communications or mobilising system recording facility
	Use the mobilising system premises based property gazetteer
	Use incident typing
	Prompt call information (ECM)

Hazard knowledge

Control room operators should have the knowledge to identify the capabilities and location of all fire and rescue service resources and specialist equipment. This will aid them when making decisions throughout any call process. When fire and rescue service controls are busy and information is being gathered from numerous sources, or multiple calls on different incident types are being handled, control room operators may have to re-deploy resources from one incident to another after carrying out a dynamic risk assessment of each call.

Mobilising systems can display pre-determined attendances from their address based gazetteer and incident type list, to display the nearest resource using the Automatic Vehicle Location System (AVLS). However control room operators should monitor, review and update the resource availability and movement. They can also manually override the mobilising system if a certain resource has become available nearer to an incident, reducing blue light movements. The process of receiving emergency calls, identifying the correct address and mobilising the most appropriate resources can be delayed by a number of failures. These include:

- Failing to communicate effectively with the caller
- Misrouting emergency calls by call handling agencies
- Failure in emergency call management

Failure to communicate effectively with the caller

Emergency calls are received in various ways and sometimes under difficult situations. Apart from receiving calls from known agencies, calls from the public can be challenging if not handled properly, which in turn can delay resources getting to an incident.

Initially, when dialling 999/112, callers will automatically be passed through to the call handling agency, who will then pass the call to the correct service.

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

There may be barriers between the caller and the control room operators. These can be in various forms; the call could be made from a bad reception area and keep cutting in and out, it may be a Telematics mobile call, there may be a language barrier, or the call could come from a member of the public who is deaf, hard of hearing, deaf-blind or speech impaired.

These can be very difficult calls for control room operators to manage and extract the correct details for resources to be mobilised. The control measures in place support both caller and control room operators to obtain the required information. However, inevitably this could increase the control room operators' call handling times.

There may be occasions when calls received from call handling agencies have been misdirected or misrouted. This can either be to the wrong agency or to another fire and rescue service.

On being connected to a caller it can become apparent that the call has been misrouted by the call handling agency. The caller may actually require one of the other emergency services (such as police, ambulance or coastguard services) or a different fire and rescue service.

Misrouted calls occur where mobile handsets or exchange phone coverage areas straddle two or more fire and rescue service boundaries. The call handling agency will then nominate a fire and rescue to receive the call. Mobile handsets automatically search for the strongest signal and connect

to a base station; this may not necessarily be the nearest to the location of an incident being reported, especially across river estuaries.

However some new mobile handsets provide enhanced location information when dialling 999/112. The handset operating system can automatically use its built-in location capability to try to obtain a location using GPS or Wi-Fi information. This additional functionality doesn't affect the voice emergency call, which will be processed by the fire and rescue service operator as normal. It will allow the call handling agency to compare the cell coverage from the network and, if geographically consistent, will then replace the network location for any EISEC queries.

Technological advances means that increasingly an emergency call can be received direct from safety equipment such as that fitted to vehicles. In this instance a voice call from a person may not be the means for asking for assistance.

Failure in emergency call management

Emergency call management processes should be followed in each emergency call. The interaction between control room operators and the caller can change depending on the nature of the incident, the caller's location and the pre-determined response. Mobilising systems could be able to display pre-populated questions and prompts to control room operators during an emergency call. The system can then link to a specific incident type list, so the correct advice is given and calls are all quality assured.

Two existing documents currently provide National Emergency Call handling guidance to control staff:

- (Fire Service Circular 10/93 appendix B – Fire survival Guidance)
- (Fire Service Circular 54/04 – Emergency Call Management)

Control staff use this national guidance as a support to underpin their contact with callers.

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

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

 Failure to record relevant information could restrict attending crews when they are undertaking dynamic risk assessment prior to arrival.

Call challenging

During any emergency call, control room operators should use their judgement to identify where to call challenge. Call challenge is the targeted questioning of a caller, enabling the control room operator to ascertain whether the attendance requires amendment. They may also identify that the call is not genuine.

Duplicate calls

When additional calls are received regarding an incident to which an attendance has already been mobilised, the control room operators must be made aware of any secondary information that may help to locate the incident, or understand what further action is required. This information is then relayed to other oncoming resources.

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

If a call indicates that there could be a second incident in the vicinity (the caller does not agree that it is the same incident and this cannot be guaranteed from looking at the map or asking ongoing crews via the radio), a second incident must be recorded and further crews mobilised. It is essential that crews going to both incidents are made aware of this to avoid any confusion and ensure dynamic risk assessments are carried out.

Filtering

When collating call information, control room operators will filter out calls that may not require an attendance in accordance with their integrated risk management plan (IRMP). These calls could include automatic fire alarm signals, persons locked out, flooding incidents and so on. The control room operator makes an assessment and gives relevant advice to the caller on the appropriate agencies or organisations to contact.

Spike conditions

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

Spate conditions

Spate conditions occur where a large number of calls are being received simultaneously for incidents not at the same address. An example of this is flooding caused by severe weather.

Spate conditions can sometimes be planned for. However, this may not always be the case, for example in a Marauding Terrorist Firearms Attack.

Spate conditions can go on for periods of hours or even days.

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

Control measure – Consider salutations

Control measure knowledge

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

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

Control measure actions

Fire and rescue services should:

- Develop standard procedures for obtaining the most relevant information from callers. This will allow the nearest appropriate resource to be mobilised quickly.
- Develop survival guidance prompts for control room operators

Control room operators should:

Be familiar with these procedures and should use them where appropriate

Control measure – Use EISEC/CLI

Control measure knowledge

Enhanced Information Service for Emergency Calls (EISEC) or caller line identification (CLI) enables control room operators to confirm the caller's location swiftly. This is a critical first step in the call handling process, since the line could be 'cut', leaving the location unknown. EISEC technology provided by call handling agencies allows the billing address of the phone from which emergency calls are being made to be displayed to the control room operator. This speeds up the information process. This technology can also be used to locate the whereabouts of mobile phone callers, identifying the cell network from which they are calling. This is particularly useful when callers are reporting incidents on the road network and are unaware of their exact location.

Caller line identification will improve efficiency to help and minimise dialogue between the control room operator and the caller. This will in turn strengthen the 'speed and accuracy', dimension of resilience, enabling control room operators to reach the point of mobilising resources more effectively. (DCLG Future Control Room Services Scheme September 2013, Annex E, Page 65)

Control measure actions

Fire and rescue services should:

- Consider using EISEC/CLI location information. When a call is received, the EISEC/CLI instantly gives the control room operator location information that can be used as a guide to the potential location of the emergency. This aids the fast mobilisation of resources.

Control measure – Use the Geographical Information System (GIS)

Control measure knowledge

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

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

The GIS functionality within mobilising systems may enable control room operators to attach or create risk information for specific locations. They may, for example, denote temporary road closures, planned major events, site-specific risk information (SSRI), hydrant data, tactical and COMAH plans. These can aide mobilising decisions and may also be used to provide information to crews

Control measure actions

Fire and rescue services should:

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

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example, denote temporary road closures, planned major events, site-specific risk information (SSRI), hydrant data, tactical and COMAH plans. These can aid mobilising decisions and may also be used to provide information to crews

Control measure – Use Automatic Vehicle Location (AVLS)

Control measure knowledge

The Automatic Vehicle Location System (AVLS) provides the exact location of individual fire and rescue service vehicles. This enables the mobilising system to propose the nearest available resource that is appropriate to dispatch to an emergency. AVLS will improve efficiency, as the mobilising system will know the exact location of resources without human intervention. It will also strengthen the 'speed and accuracy' dimension of resilience by enabling the fastest appropriate resources to be identified instantaneously. The system uses a road network layer to calculate the resource – calculations will take resource type capabilities or restrictions into account, will account for any current road conditions and distinguish whether congestion is caused by the incident or not.

See [DCLG Future Control Room Services Scheme, September 2013](#)

Control measure actions

The control room operator will:

Retrieve and mobilise the relevant resources – after collating call handling information and retrieving the correct pre-determined attendance, the system using the AVLS function presents and displays the nearest available resources for mobilisation

Control measure – Use Text Relay Service (previously Text Direct)

Control measure knowledge

The Text Relay Service is used by customers who are deaf, hard of hearing, deaf-blind, or speech-impaired and use a text phone to make or receive telephone calls. The call handling agency provides a unique code for Text Relay customers to make emergency calls. Customers who cannot use voice-based systems will use a text phone to make and receive telephone calls. A text phone can be thought of as a standard telephone but with the handset replaced by a keyboard and display.

Two text phones can communicate over a standard telephone call. The characters that are typed on the keyboard of one text phone are transmitted to the other text phone as tones in real-time – each character is sent as it is typed and the user does not have to press Enter to send the text. If one party does not have a text phone the call has to be facilitated by the Text Relay service.

Text Relay is a network based service that BT/CHA provides to customers who need to use text phones. Any customer making a text phone call, or wishing to communicate with a text phone user, will use Text Relay. No registration is required. The call will be answered by a 999 emergency advisor who will be joined at the same time by a Text Relay Assistant. The Relay Assistant will translate the conversation by reading the typed text from the text phone user to the voice user and typing their spoken reply.

The BT/CHA 999 Advisor will announce to the emergency services that the call is from a text user. It is possible to receive such calls from mobile phones but in these circumstances the customer will be connected in voice.

If the call is made from a BT/CHA customer, name and address details will be provided. However, this may not be the case for customers of other call providers

If for any reason the Text Relay service is extremely busy a call may arrive with the BT /CHA 999 Advisor without the Text Relay Assistant in conference.

(PECS Code of Practice, Draft 4, March 2014)

Control measure actions

Fire and rescue services should:

Have equipment and procedures in place to allow them to receive calls via text phone or the text relay service

Control measure – Use an interpreter call handling agency

Control measure knowledge

A wide variety of languages are used by both residents and visitors to the UK. Where a caller in a stressful situation and English is not their native language the ability to quickly gather information can be impaired.

A number of agencies who offer rapid access to interpreting services are available, covering a wide range of languages.

Control measure actions

Fire and rescue services should:

- Have arrangements in place to allow control room operators to handle calls for assistance from members of the public who are unable to communicate in English
- Develop procedures to ensure control room operators can quickly establish if interpretation services are needed. The control room operator should be able to identify the language required

Control measure – Record call details

Control measure knowledge

All call handling details should be recorded by control room operators   so that an accurate account has been logged for any queries or future references.

Control measure actions

Fire and rescue services should:

Develop procedures and systems to allow control room operators to record information so that it can be stored and, if necessary, retrieved quickly

Control measure – Use the communications or mobilising system recording facility

Control measure knowledge

Instant playback recording

Communication or mobilising systems can record information when a control room operator either transmits over the radio channel or answers a telephone call. This automatically de-selects once the action has ceased.

Archive recording

This is multi-channel continuous recording archive system. It usually stands alone, with sufficient storage for all voice traffic to and from each control room operator's position, both on radio infrastructure and telephones designated to the control room, which are clearly identified.

The recorder will also define searches based on:

- The date and time
- Operator position
- Length of call
- Incident number

This system allows control room operators to extract a specific recording and transfer it to a removable media device or an electronic format. It also allows the analysis of call data for pre-format reports, call assessment and verification, and can also be accessed from more than one place.

Control measure actions

Fire and rescue services should:

- Consider providing instant recording facilities. Where provided these should offer simple and effective instant playback to the control room operator.
- Where automatic recoding facilities are provided, develop a policy for the use and storage of these recordings. In developing this policy they should refer to current legislation such as the Data Protection Act.

Control measure – Use the mobilising system premise based gazetteer

Control measure knowledge

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

- Improve the accuracy of an emergency response by enabling exact address information to be relayed to firefighters and officers at the time of mobilising
- Allow a wide range of valuable information to be held alongside address details and points of interest (e.g. address- specific risks, plans, key holder details and road closures), all of which can be included in system-generated mobilising messages
- Help reduce the risks faced by firefighters attending incidents, by providing them with information on the dangers they are likely to encounter at specific locations
- Help mitigate the risk of communication errors by providing a set of common address information for control room operators to use when working in partnership with, or providing assistance to, another fire and rescue service, or when communicating with resources attending emergencies
- Facilitate and improve the ability of fire and rescue services to work together and with other emergency services by providing a common set of address information

A premises-based gazetteer can improve operational efficiency and contribute to strengthening the 'speed and accuracy' dimension of resilience significantly, by increasing mobilising accuracy.

See DCLG, Future Control Room Services Scheme, September 2013, Annex E, page 66

Control measure actions

Fire and rescue services should:

Consider adopting a standard premises-based gazetteer. In selecting the gazetteer they should bear in mind the need for this to be kept up to date. This can be achieved by adopting a gazetteer that is maintained by a third party, such as AddressBase.

Some incident locations have special risk information attached to them.

Control room operators should:

Ensure they adhere to all action plans or special procedures regarding addresses (COMAH sites for example) and they carry out the correct procedures. Crews will be able to access this information via mobile data terminals once all details have been recorded and mobilisation performed.

Control measure – Use incident typing

Control measure knowledge

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

The incident type may be based upon a hierarchical structure that can have multiple levels or subsets. This system offers a list of mobilising incident reference types and guidance on specific descriptors.

When an incident type is recorded it allows the control room operator to run a search based on key words entered for the type during a call. This can provide a structure to begin gathering the relevant

information that will be necessary to respond. This information will assist in building an accurate picture of the incident, and when constructed to offer operators proactive operational responses such as pre-determined attendances and action plans, the outcome would be consistent and sound decision making when deploying resources to emergency calls.

See CFOA National Incident Type List

Control measure actions

Fire and rescue services should:

Consider developing or adopting a clearly defined methodology for recording the types of incident that may require their response

Control measure – Prompt call information

Control measure knowledge

Emergency Call Management (ECM) is based on a set of generic emergency call prompts. These will build on the knowledge and skill of control room operators enabling them to assess incidents and elicit specific information appropriate to the type of calls, which will assist with mobilising. This may also improve the safety of firefighters and the public, as the fire and rescue service begins to assess and manage risk during the management of an emergency call.

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

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

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

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

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

Fire and rescue services have a statutory duty to respond to emergencies other than fires. It is important that control room operators have the right training and guidance for their role in the ECM process. Further guidance has also been gleaned from past incidents – although this has been

invaluable to control room operators   there is a need to expand the questioning to reflect current incident types.

Control measure actions

Fire and rescue services should:

Consider adopting methods of prompting control room operators with standardised information, which will assist them in identifying the information they need to mobilise the correct resources

Failure to record, action, update and store incident data

Hazard	Control measures
Loss of, or failure to correctly store accurate incident data	Use the mobilising and communication system Follow the Standard Message Process

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 any incident and will continue to be accessed or referenced long after an incident has been closed. The information may be used for a number of reasons:

- Organisational learning and development whether from a strategic, tactical or operational view point
- Post-incident investigations – fire related, accidents or criminality, for example
- Sharing with other emergency responders or agencies

The communication and mobilising systems set up by fire and rescue service control rooms can be used for incident data and logging. The log endorsements are the responsibility of the control room operators and there should be regular reviews to ensure their accuracy, quality and consistency in accordance with relevant legislation, guidance and protocols.

See: Recording Information

Data Protection Act 1998

Control measure – Use the mobilising and communication system

Control measure knowledge

The main function of the mobilising system is to aid the recording of call information and the despatch of the selected resources. Secondary functions include displaying alarm conditions for the system and the generation of statistical information.

On entry of an incident type and address the system will interrogate its database to match the address information. It may also search for risks, duplicate incidents, telephone kiosks, map references, historical data etc., so as to provide the operator with as much information as possible. When an address match is made the operator is presented with a pre-determined attendance from the address based gazetteer. The system makes recommendations, which can be overridden by the operator. The mobilising system also maintains a log for each incident, recording all times and actions associated with that incident. Other facilities are batch calls in spate conditions, malicious call log, operating and system alarms, training mode and all control room operators (CRO) call handling times and logging data information.

The mobilising system will also include an interface with station end equipment to enable turnout messages to be transmitted. These messages can be sent to resources in a number of ways, for example data messages sent to a computer located in a fire station or other location where resources may be based, even temporarily. The data links between the mobilising system and the station end equipment can be provided in a number of ways such as the wide area network and the Public Switched Telephone Network. It is usual to employ multiple bearers for resilience.

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

Control measure actions

Fire and rescue services should ensure they have a mobilising and communications system in place which allow for:

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

Fire and rescue services should ensure that mobilising and communication systems are capable of integration to allow for resilience in communications.

Control measure – Follow the standard message process

Control measure knowledge

The fire and rescue service uses standard message templates to ensure communications between control rooms 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 control room operators in recording such data accurately.

Advances in technology mean that resource radios may no longer be the primary means of transmitting such information. Mobile data terminals linked to mobilising systems can send all status messages in text formats, but it should be borne in mind that standard templates must still be used to reduce any confusion as to the type and nature of a message.

Such messages would be for fire sector incidents only. Any requirement to pass on or share information with multi-agency partners will be addressed within the existing JESIP Interoperability Framework

Control measure actions

Fire and rescue services should:

- Have procedures in place for standardised message formats that are known to all personnel; bear in mind the need for interoperability
- Follow best practice and ensure that the call sign or incident commander's name should precede any message – this will enable the control room operator to accurately identify the log to be annotated with the details
- Additional messages will be passed from the incident ground to the control room and local policies and procedures will determine their structure and nature

See National Operational Guidance - Incident Command (to follow)

Fire Service Manual – Training- Edition 3 Appendix 2 - Fireground communications (to follow)

Time of alert to time of attendance

Impaired mental and physical ability caused by alert/notification to respond

Hazard	Control measures
Impaired mental and physical ability caused by alert/notification to respond	Monitor health and fatigue

Maintain situational awareness

Wear safe clothing and footwear on call

Provide a safe environment |

Hazard knowledge

When a person receives notification to respond to an emergency incident they may experience a range of emotions and subsequent physical reactions. These reactions may impair their cognitive appraisal of the situation and so increase the likelihood of making errors of judgement. This temporary physical and mental impairment can increase the likelihood of accidents occurring.

HSG48 states that to evaluate the risks from the hazards it is important to decide if the risks vary due to human influences. For example, there is a higher likelihood of human error between 02:00 and 05:00 when physiology dictates that the human body should be asleep. The risks will also be

influenced by how well trained people are, whether they have had sufficient rest before starting a shift, and whether they have taken alcohol or used drugs.

Control measure - Monitor health and fatigue

Control measure knowledge

Most firefighters work shift systems, including at night, and sometimes for extended hours. Such working patterns can lead to adverse effects on health. Reduced performance levels have been associated with shift working, which can also increase the likelihood of accidents and ill health.

Firefighters may experience severe fatigue, which 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 give rise to increased risks.

Section 6 of the [Management of Health and Safety at Work Regulations 1999](#) states that every employer shall ensure that his or her employees are provided with health surveillance appropriate to the risks to their health and safety identified by the assessment.

Control measure actions

Fire and rescue services should:

- Consider the impact of fatigue as per The [Working Time Regulations](#) (as amended)
- Ensure that fatigue associated with primary employment is considered in the case of retained duty staff and that arrangements are in place to monitor and manage fatigue and crew welfare during such incidents
- Ensure rest and recuperation periods follow protracted and arduous incidents
- Consider drug and alcohol testing

Control measure – Maintain situational awareness

Control measure knowledge

When firefighters are alerted to respond to an emergency incident, the information contained in the notification to respond may cause the firefighter to make a judgement about the urgency of the incident. In some people this may cause a stress reaction that may have an impact on their physical and mental ability to respond safely.

Firefighters should also be aware of the hazard that can be caused when the notification to respond distracts them from their current activity. This may occur during fire and rescue service activity but also during secondary employment, leisure or domestic activities.

Control measure actions

Fire and rescue services should:

- Ensure responders have appropriate information at the time of call where possible, so that they can make appropriate decisions about how they respond

- Ensure that responders understand how their physical and mental ability can be impaired by the transition from rest to response, so that they can take conscious action to respond safely
- Ensure responders are aware of Section 7 of the Health and Safety at Work Act 1974, which states that "Employees must take reasonable care of their own and other people's health and safety"
- Ensure responders are also made aware of team safety protocol; for example, the safe person individual responsibilities, "Maintaining situational awareness means: 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, particularly when working without supervision."

Control measure – Wear safe clothing and footwear on call

Control measure knowledge

Section 7 of the Health and Safety at Work Act 1974 states that, "Employees must take reasonable care of their own and other people's health and safety." Fire and rescue services should have standards of dress policies in place, based on the requirements of local risk assessments.

Control measure actions

Responding staff should:

- Ensure that the choice of footwear worn when 'on call' is safe and appropriate for responding and for the prevailing weather conditions
- Consider the standard of clothing worn beneath personal protective equipment (PPE)
- Wear clothing appropriate to their personal protective equipment (PPE) and other operational conditions

Control measure – Provide a safe environment

Control measure knowledge

Fire and rescue service premises must provide a safe working environment that takes into account the impact, on employees, and other people who may be on the premises, of responding to emergencies.

Control measure actions

Fire and rescue services should:

- Consider a phased increase in sound volumes and levels of illumination in station alert/turnout systems
- Make personnel aware of the possible impact of impaired cognitive appraisal
- Provide a safe building and working environment

Road traffic collisions

Hazard	Control measures
Road traffic collisions	Encourage safe drivers and safe passengers Ensure safe vehicles

Hazard knowledge

Significant hazards can be presented by the movement of people and vehicles to emergency incidents. Fire and rescue service vehicles travelling to emergency incidents are exempt from certain statutory provisions under the Road Traffic Regulation Act 1984 (Section 87). This may present certain issues for arriving safely at the incident ground.

A number of factors may increase the likelihood of road traffic collisions, including:

- Alcohol
- Drugs
- Fatigue
- Stress
- Perception of urgency
- Peer pressure

In addition to these factors, drivers may need to take vehicles off the normal roadway, through restricted gaps, through floods, snow and ice to resolve or attend operational incidents.

Safe person individual responsibilities include the individual being responsible for their own safety and being competent and knowledgeable about hazards.

Control measure – Encourage safe drivers and safe passengers

Control measure knowledge

The Health and Safety Executive has produced a document detailing issues for people who drive at work. It suggests that managing work-related road safety effectively helps reduce risk, no matter what the size of the organisation. They also give examples where this type of road management policy may also result in:

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

See: HSE Driving at work - Managing work-related road safety

Drivers and passengers should be aware of their duty to comply with both the Highway Code and service policy. They should also be aware that while some exemptions exist for road traffic legislation these do not permit driving dangerously

Control measure actions

Fire and rescue services should have arrangements in place to:

- Ensure compliance with the Road Traffic Regulation Act 1984
- Regularly monitor their drivers' entitlement to drive (Section 87(2) Road Traffic Act 1988
- Ensure on call personnel are made aware of, and conform to legal requirements when responding to fire stations on receiving an emergency call
- Ensure that an appropriate driver training and maintenance of skills programme is in place, and that drivers satisfy medical requirements
- Monitor situational awareness:
  - Consider the impact of the information contained in the alert message and how it may affect the driver's perception of urgency (i.e. urgency of response appropriate to nature of call). The choice of words and phrases used in mobilisation messages will influence behaviour from the receipt of a call in fire control to fire station turnout, during response and immediately upon arrival (see Fire and Rescue Authorities health, safety and welfare framework for the operational environment Priming Language, Panel 2, Section 9.1)
- Take account of the impact of fatigue and stress when assigning operational personnel to incidents particularly during spate conditions
- Consider the impact of the working/driving time regulations particularly with retained duty system personnel who may drive commercial vehicles in their main employment contract
- Ensure appropriate arrangements and control measures are in place to identify and control the hazards associated with lone working en route to incidents. This may apply to officers responding in cars in particular (See Working alone - Health and safety guidance on the risks of lone working)
- Drivers should be aware of the dangers of multi-tasking and its contribution to road accidents (Highway Code General Advice Para 148-150 - Driver Distraction)

Control measure – Ensure safe vehicles

Control measure knowledge

The safe person principle establishes the foundation for effective health, safety and welfare management in the operational environment. It requires fire and rescue authorities to plan for and implement suitable arrangements for providing, maintaining and the response of suitable appliances and the equipment necessary to deal with the range of operational incidents it will be called on to attend (The Road Vehicles (Construction and Use) Regulations 1986).

In its publication *Providing and using work equipment safely - a brief guide*, the Health and Safety Executive provides an outline of the requirements of the Provision and Use of Work Equipment Regulations 1998 (PUWER) and describes what an employer may need to do to protect employees in the workplace. See http://www.hse.gov.uk/pubns/indg291.pdf . This approach to safety is further embellished by the *CFOA Transport Officers Group – Best Practice Manual for Vehicle Maintenance* and *the Fire Service HGV Inspection Manual*.

Control measure actions

Fire and rescue services should consider the following:

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

Mobilised resources failed or delayed attendance at incidents

Hazard	Control measures
Mobilised resources failed or delayed attendance at incidents	Ensure reliable and efficient transport and communication arrangements

Hazard knowledge

If fire and rescue service vehicles are delayed or they fail to respond an inappropriate balance of resources may be available at the incident. Efficient arrangements should be in place to ensure that service control operations identify and mobilise the correct resources for the incident type and location. See Emergency Fire Control Operations.

Control measure – Ensure reliable and efficient transport and communication arrangements

Control measure knowledge

Fire control operations should make appropriate decisions on the resources to mobilise. However, these resources may fail to attend an incident or may be delayed in their response. In all cases of failed or delayed attendance, services should have arrangements in place to ensure that service control is promptly informed so that appropriate actions can be taken.

Common reasons for failed/delayed attendance are:

- Staff failing to respond or not responding promptly
- Vehicle breakdown
- Road traffic collision en route (see Road traffic collisions above)
- Unable to locate incident

Control measure actions

Fire and rescue services should:

- Have reliable arrangements in place to ensure that responding staff receive the alert/notification to respond
- Provide reliable vehicles (see The CFOA Transport Officers Group Best Practice Manual for Vehicle Maintenance and the Fire Service HGV Inspection Manual)
- See control measures (listed in Road traffic collisions above)
- Ensure fire control operations personnel make use of georaphical information systems (GIS) and automatic vehicle location systems (AVLS) to assist in identifying incident locations and directing resources. See Emergency Fire Control Operations.
- Ensure operational personnel are familiar with the risks and road networks within their area
- Have efficient and reliable communications arrangements in place to ensure that fire control operations personnel are promptly notified of any failed attendance or delayed response

Incident related hazards en route to and on attendance at the incident

Hazard	Control measures
Incident related hazards en route to and on attendance at the incident.	Appropriate mobilising and a safe and controlled approach to the incident

Hazard knowledge

The direct and indirect hazards associated with an incident may extend beyond the immediate incident ground. Examples include the build up of traffic, onlookers, press, people trying to evacuate, gas clouds, chemical contamination or radiation. At certain incident types an emergency service attendance can cause an additional hazard to those agencies already in attendance. It may, therefore, be necessary to proceed to the incident without the use of blue lights and audible warning devices. This directly relates to the quality of the information passed as part of the mobilisation process.

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. The communication systems/interfaces used to convey this information should be reliable, effective and accessible. Appliance commanders should communicate regularly with fire control to exchange information that may be useful to other resources attending (traffic conditions/blocked roads etc.).

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

Control measure actions

Fire and rescue services should:

- Ensure appropriate mobilising. Consider dynamic mobilising to make sure that no resources are mobilised unnecessarily. See Incident Management – Failure to identify and mobilise the correct resource.
- Maintain situational awareness – arrangements should be in place to ensure that personnel are provided with relevant and accurate information about the type of incident they are attending so they can make an accurate appraisal of the hazards en route to and on attendance at the incident
- Have effective arrangements in place to allow all appliances and vehicles to be positioned on the incident ground in a way that optimises their safe use and minimises risk. These measures include:
- Protection and visibility on roadways
- Parking areas appropriately out of the hazard area
- Leaving access for specialist appliances and other emergency vehicles
- Ensure that communication equipment and methods of communication are proven to be reliable, to ensure that those responding always receive any information that has an impact on the safety of personnel, other agencies and the general public

Resources attending the incident should:

- Make a full and accurate dynamic risk assessment of the presented and expected hazards and risks
- Be informed en route of any changes at the incident that may influence the urgency of their attendance or choice of access route

Information gathering

Failure to identify foreseeable risk

Hazard	Control measures
Failure to identify foreseeable risk	Fulfil legislative responsibilities Produce a risk management plan Produce Site-Specific Risk Information Produce emergency response plans Consider National Guidance

Hazard knowledge

Fire and rescue authorities have a responsibility for the health, safety and welfare of their employees. This runs parallel to their responsibility to mitigate the risk from fire (and other emergencies) to the community they serve, and the environment within which they operate.

As part of these responsibilities, the fire and rescue authority must have appropriate policies and procedures in place to address any issues in achieving these objectives and provide the appropriate knowledge, skills and understanding through training and development, to enable its employees to operate safely.

The Fire and Rescue Services Act 2004, states that a fire and rescue authority must make provisions for:

- Extinguishing fires in its area
- Protecting life and property in the event of fires in its area
- Rescuing and protecting people in the event of a road traffic accident
- Rescuing and protecting people in the event of emergencies.

Section 7(2) d of this Act places a responsibility on the fire and rescue authority to make arrangements for obtaining the information needed for that purpose. Sections 8(2) d and 9(3) d place a similar responsibility on the fire and rescue authority regarding road accidents and other emergencies.

In support of these legislative responsibilities, the various fire and rescue national frameworks require all fire and rescue authorities to have effective arrangements for gathering risk information and making it readily available to operational crews in place. These arrangements should include an effective audit and review system to ensure that the information is current. Identifying and managing risk – whether through pre-planning and managing emergencies, fire safety, crime and disorder initiatives, training or undertaking other day-to-day activities – is part of the integrated risk management planning process.

Fire and rescue services already capture data and information to support the core functions of their organisations, such as:

- Operations
- Fire safety
- Emergency planning
- Fire investigations
- Health and safety
- Post-incident learning

The extent of the data collected and held and the policies and processes related to the use, storage and dissemination of this data and information vary across fire and rescue services. However, data and information may be stored in isolation and the consequent data integration issues may affect efficient operational pre-planning and incident management.

Most operational risks are foreseeable. However, the risks posed by events such as adverse weather conditions or civil contingencies are not easily quantifiable. A combination of operational risk information with available generic risk assessments, local knowledge and professional judgement will help ensure appropriate risk management processes can be put in place.

An operational risk information management system should:

- Bring together outputs from existing and established systems

- Develop and support a common approach to the strategic and dynamic analysis of risk
- Determine the appropriate application of resources and processes to address the risks that impact on the firefighter, other emergency responders, members of the public, the environment and so on

The Fire and Rescue Service Operational Guidance – (Operational Risk Information March 2012; Section 3) report into providing mobile data examined the information requirements for the roles that support incident ground operations. This study identified that providing accurate, relevant and timely operational information was critical to all personnel. These three elements are reflected in the data information triangle shown in Figure 1. The study also highlighted that providing too much information could put the recipient into 'information overload' and this situation may be as serious as not providing enough information. See Incident Command resilience and pressure management (to follow)

Fig.1.

INFORMATION TRIANGLE

RELEVANT

EFFECTIVE INFORMATION
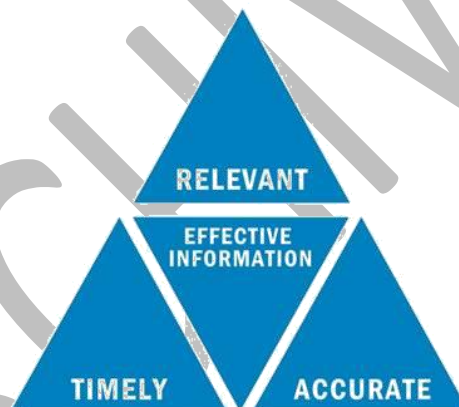
TIMELY   ACCURATE

All three elements shown in the apexes of the triangle must be satisfied to ensure effective information is exchanged and if not achieved the following may occur:

- RELEVANT and TIMELY but not accurate = MISLEADING or MISINFORMATION
- RELEVANT and ACCURATE but not TIMELY = Potentially too late to be of any value
- TIMELY and ACCURATE but not RELEVANT = INFORMATION OVERLOAD

Control measure – Fulfil legislative responsibilities

Control measure knowledge

Fire and rescue services need to understand their statutory duties and responsibilities relating to operational information. They should adopt a common methodology and approach to managing the identification, gathering, analysis, provision, audit and review of operational data.

This responsibility is specifically identified in a number of different elements of legislation (The Fire and Rescue Services Act 2004, and the Management of Health and Safety at Work Regulations 1999). A range of other legislation also places responsibilities on fire and rescue authorities regarding collecting, using, storing and sharing data.

Control measure actions

Fire and rescue services should:

- Ensure there are clearly defined strategic responsibilities for policies and procedures
- Manage operational risk information as part of an integrated approach to managing risk and ensuring safe systems of work for all employees
- Take relevant legislation and available guidance and information into account when planning and undertaking risk management activities – the breadth of legislation that may impact on the gathering, storing and use of operational risk information is wide ranging and a range of further guidance and information is published by Government or other agencies

Control measure - Produce a risk management plan

Control measure knowledge

Each fire and rescue authority must produce a risk management plan that identifies and assesses all foreseeable fire and rescue related risks that could affect its community, including those of a cross-border, multi-authority or national nature. The plan must consider the community risk registers (CRR) produced by local resilience forums (LRF) and any other local risk analyses as appropriate.

The government monitors the risks that the United Kingdom could face through the National Risk Assessment process, which is led by the Cabinet Office, and through other relevant risk assessment and horizon-scanning processes. The government provides guidance to Local Resilience Forums on how to interpret the likelihood and impact of these risks for their local area. This guidance informs the local resilience forums in producing community risk registers, ensuring there is a fully integrated risk assessment process between the government and all local responders, including fire and rescue authorities.

The government will also define the consequences of those risks included in the National Risk Assessment and set a benchmark of the generic capability needed to ensure the United Kingdom can both respond to and recover from a range of potential emergencies. The government does this through the National Resilience Planning Assumptions, led by the Cabinet Office.

Control measure actions

Fire and rescue authorities should:

- Consider community risk registers and any other local risk analyses to ensure that all foreseeable fire and rescue related risks are identified and included in their risk management plan
- Refer to the National Risk Register, the National Risk Assessment and the National Resilience Planning Assumptions when producing their Integrated Risk Management Plans

Control measure – Produce site-specific risk information (SSRI)

Control measure knowledge

Fire and rescue authorities must make arrangements to obtain necessary information for the purposes of:

- Extinguishing fires and protecting lives and properties from fires in its area (Fire and Rescue Services Act Section 7)
- Rescuing and protecting people from harm from road traffic collisions in its area (Fire and Rescue Services Act Section 8)
- Dealing with any other emergency function other than fires and road traffic collisions in its area (Fire and Rescue Services Act Section 9)

Such information would then need to be made available to operational personnel to help in successfully planning for, and resolving, operational incidents.

Control measure actions

Fire and rescue services should support the generic information identified for foreseeable risks, which may include a programme to produce Site-Specific Risk Information – the following steps should be taken in achieving this:

- Identify local sites and their risks
- Carry out familiarisation visits to such premises or sites
- Produce suitable templates to record and capture the relevant information
- Establish a delivery method to present the information in a clear and timely manner
- Schedule reviews and audits for the validity and accuracy of such information
- Embed a quality assurance programme

Control measure – Produce emergency response plans

Control measure knowledge

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

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

Control measure actions

Fire and rescue services should ensure that emergency plans are produced. Considering the roles and responsibilities of the fire and rescue service when attending emergency incidents, plans should identify the following:

- Information on specific hazards
- Activation or triggers for the plan
- Identification of roles and responsibilities
- Stand-down procedures

Control measure – Consider national guidance

Control measure knowledge

National guidance has been published by various bodies in the past ranging from 'Dear Chief Officer Letters' to Technical Bulletins. These publications do not impose a legal duty to adopt guidance, but they may be seen as best practice and a rationale for not following them would be necessary.

A partnership has been established between London Fire Brigade, the Chief Fire Officers' Association and the Local Government Association to develop national operational guidance that will, over time, supersede older guidance. This national operational guidance is designed to provide hazard and control statements that identify all hazards within a themed area and provide a suite of possible control measures.

The National Operational Guidance themes are grouped:

- 'All incident' currently includes two elements, Incident Command and this guidance.
- Contexts are the operational environments in which any type of incident can occur, such as incidents on roads
- Tier one guidance is grouped by type, such as Rescues, Fires and Firefighting and Hazardous Materials
- Each element of tier one guidance then has **lower tier guidance** such as Fires in the Built Environment.

For the National Operational Guidance to be relevant to individual fire and rescue services, it is important that local risk levels are assessed and guidance compared with the local risk assessment.

Control measure actions

Fire and rescue services should:

Identify the risks within their area and produce policies and procedures that take account of national operational guidance

Failure to receive accurate, timely and relevant information

Hazard	Control measures
Failure to receive accurate, timely and relevant information	Follow Emergency Call Management procedures
	Adopt an information management methodology
	Engage subject matter experts /Responsible or

	Competent Persons
	Consider non-technical skills

Hazard knowledge

For the fire and rescue service, information is a critical resource in achieving successful operations. The availability of accurate, timely and relevant information is vital for managerial functions to be performed effectively, such as planning, mobilising, organising, leading and control.

- Accuracy of information is determined by measuring the information against actual events or occurrences
- Timeliness refers to the currency of the information when it is received
- Relevance concerns the situation or problem at hand. Relevant information is limited to that which can help solve a problem or contribute to a solution

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

Information sources and systems should support personnel's overall situational awareness of an event, which will inevitably present opportunities to have a significant impact on decision making. See Incident Command, Decision Making Mode(to follow)l

In theory personnel always have some prior knowledge and understanding of events that are relevant to their decision making process. However additional or supporting information can and may modify their view of the event and potential outcomes, which may change a decision and the likely results. See Incident Command Decision Making Model. (to follow)

Control measure – Have emergency call management in place

Control measure knowledge

Section 1 Emergency Call Management (Link) provides detailed hazard and control information relating to receiving emergency calls, mobilising resources and maintaining the information flow between service control and the incident ground.

Control measure actions

Fire and rescue services should:

Ensure they have arrangements in place for recording and disseminating information through call handling processes

Control measure – Adopt an information management methodology

Control measure knowledge

In an organisation, information management systems are like the nervous system in the human body. They are the link that connects all the components together, enabling better operational decisions and responses to emergency incidents.

Information consists of data that has been processed, which is therefore meaningful to an end user. A system is a set of components that operate together to achieve a common purpose. Thus a management information system collects, transmits, processes, and stores data. The system makes the conversion of data into management information for use by decision makers possible.

A management information system, therefore, produces information that supports the management functions of an organisation (Davis & Olson, 1985; Lucas, 1990)

The Provision of Operational Risk Information System, as an example of good practice, seeks to provide a common approach to operational planning and management of risk and has been developed to assist fire and rescue services to:

- Meet their legislative responsibilities
- Maintain and where necessary improve their effectiveness and efficiency
- Manage the risk to their personnel
- Maintain interoperability with neighbouring Fire and rescue services and other Category 1 and Category 2 responders
- Manage and mitigate other risks in the communities that they serve.

The Provision of Operational Risk Information System has been specifically designed to utilise existing data sets and supporting information, and is constructed to enable a flexible working framework where principles, rather than hard and fast rules, are used to underpin the methodology. It takes account of the need to identify and assess information, and its relevance to the operational pre-planning and management of risk to six risk groups (Link to PORIS Model contained within an appendix of the Operational Guidance).

Control measure actions

Fire and rescue services should:

Adopt a common methodology and approach to manage the identification, gathering, analysis, provision, audit and review of operational data, while allowing flexibility to integrate their respective processes within such a template.

Control measure – Use subject matter experts and Responsible Person (or Competent Persons)

Control measure knowledge

Subject matter experts (SMEs) are individuals with an expertise in a particular area or topic. An SME has special, in-depth knowledge from both a business and organisational perspective that, when shared with others, significantly enhances performance. They should bring real-world examples, best practice and tricks of the trade that will have a positive impact on decision making. They should be the go-to resource who helps resolve complex issues and has an understanding of their unique environment and work.

A Responsible (or Competent Person) should have the appropriate level of knowledge and skills to be able to provide accurate and relevant information on their specific area of work. They should also be able to interpret and translate such understanding into information that would be useful to support operational priorities.

Control measure actions

Fire and rescue services should:

Attempt to engage with SMEs and Responsible Person (or Competent Persons) at every opportunity, to enable the provision of accurate, timely and relevant information – using such knowledge will result in a continuous emphasis on quality information based upon common understanding and underpinning knowledge of a situation

Control measure – Consider non-technical skills

Control measure knowledge

See National Operational Guidance Incident Command Non-Technical Skills(to follow)

Control measure actions

See National Operational Guidance Incident Command Non-Technical Skills(to follow)

Failure to access the information

Hazard	Control measures
Failure to access the information	Use information management systems Secure access Use non-technical skills

Hazard knowledge

When considering the storage of and access to risk information it is necessary to determine the appropriate information, level of detail and the processes to be applied to mitigate the risks presented. Additionally fire and rescue services should consider how to identify and produce such information in an appropriate format according to the levels of information required by incident commanders and responders to allow for suitable and sufficient decision making to be carried out.

Control measure – Use information management systems

Control measure knowledge

Information management systems are methods of storing, editing and distributing information. To ensure accurate, timely and relevant information these systems should be available at the point of use and should be easily accessible by those who need access to the information. These are not exclusively, but are increasingly, electronic in nature.

Vehicle-mounted data systems, such as mobile data terminals and printers offer advantages for the storage and availability of site-specific risk information on fire appliances

Some premises may be provided with emergency boxes either inside or adjacent to perimeter access points. These boxes are designed to contain emergency response information

Control measure actions

Fire and rescue services should:

- Ensure information is presented in such a way as to ensure clarity and consistency and that does not overwhelm incident commanders, firefighters or other responders when carrying out their respective roles
- Ensure the system also has the necessary protocols to make sure the information remains secure, does not contravene any protective markings applied, but at the same time make sure that does not result in information not being available to relevant users
- Consider the information requirements of incident commanders and those with other functional roles – it is essential not to cause information overload for the initial incident commander and to ensure that the information available supports the initial decision making processes and is accurate, timely and relevant. See Fire Decision Model
- Consider the appropriate format for operational risk information – it should take the mechanisms for its distribution and availability into account, for example:
  - o Vehicle-mounted data systems, such as mobile data terminals and printers offer advantages for the storage and availability of site-specific risk information on fire appliances
  - o Some premises may be provided with emergency boxes either inside or adjacent to perimeter access points. These boxes are designed to contain emergency response information

Control measure – Secure access

Control measure knowledge

Security of information is a much wider subject than providing and using operational risk information. A range of legislation is relevant to gathering, disseminating, storing and protecting information. Fire and rescue services should ensure security policies, protocols, procedures and systems are in place for operational and other information.

Advice, guidance, policies and procedures will assist with information security, to reduce the vulnerability of the fire and rescue service to unauthorised access to hard copy and electronic data. There is also assistance concerning the protective marking of materials – national guidance has been published by the Cabinet Office and the following levels are identified in Her Majesty's Government (HMG's) Security Policy Framework:

- Official
- Official (Sensitive)
- Secret
- Top Secret

Unmarked material is considered 'unclassified'. The terms 'UNCLASSIFIED' or 'NON' or 'NOT PROTECTIVELY MARKED' may be used to indicate positively that a protective marking is not needed. These markings can be applied to any government assets, although they are most commonly applied to information held electronically or on paper documents. The method used to assess these principles within information systems is based upon the impact the loss of this information may have on an organisation.

Control measure actions

The fire and rescue service should:

- Ensure arrangements made for the security of operational risk information are consistent with the Protective Marking Framework
- Assess any site-specific risk information imported into a command and control system to identify its security (protective) marking – the information usually falls into groups or levels of importance depending upon the level of risk identified
- Consider the need for site-specific risk information to be security assessed to ensure it is suitable for use via mobile data terminals
- Some sites will not allow fire and rescue services to have copies of floor plans or other information because of their security requirements. There may be an agreement to provide the information required on arrival of the fire and rescue service in the event of an incident. Operational crews responding to these sites should be made aware of these arrangements

Control measure – Use non-technical skills

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

See National Operational Guidance – Incident Command(to follow)

Failure to interpret the information

Hazard	Control measures
Failure to interpret the information	Use common terminology and symbology
	Consider non-technical skills and situational awareness
	Establish spans of control

Hazard knowledge

The importance of a common approach is highlighted by the need to ensure operational risk information can be shared and understood across fire and rescue services. This is emphasised by

increased integration of operational response, through intra-operability arrangements. See JESIP Joint Doctrine.

Information should be presented to ensure that the detail, level and content supports incident commanders and firefighters without overwhelming or overloading them. The information should be clear, concise and readily understood by all. This enables effective decision making when resolving incidents.

Control measure – Use common terminology and symbology

Control measure knowledge

Without common terminology and symbology there is a risk of misunderstanding between emergency responders and supporting organisations. At best this can lead to delays in obtaining support services and at worst people could be put at risk.

A common standard for terminology and symbology is critical to effective interoperability between emergency responders and other supporting organisations, as well as interoperability between fire and rescue services. Without a common approach and dialogue it would prove difficult to maintain interoperability between the fire and rescue services, other emergency responders and supporting organisations. This includes technical aspects of communications.

Terminology and symbology issues include:

- Words, phrases, symbols or graphics with different meanings or context
- Words, phrases, symbols or graphics with no meaning within other organisations

Control measure actions

Fire and rescue services should:

Review the guidance issued in relation to the Civil Contingencies Act, which has sought to provide some standardisation of common terminology for interoperability, and the information

As contained within guidance issued by the **Cabinet Office** - Civil Protection Lexicon and Common Map Symbology

Control measure – Consider non-technical skills

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

Control measure – Ensure spans of control

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

See National Operational Guidance – Incident Command(to follow)

Failure to transfer information

Hazard	Control measures
Failure to transfer information	Establish a common operating picture
	Make an assessment of Risk (GRA, DRA, ARA, JDRA)
	Hold operational and tactical briefs
	Record decisions

Hazard knowledge

The transfer of information between single and multi-agency responders is key in ensuring a full appreciation of the situation and the circumstances specific to the incident or emergency.

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

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

Control measure – Establish a common operating picture

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

Control measure – Make an assessment of risk

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

Control measure – Hold operational and tactical briefs

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

Control measure - Record decisions

Control measure knowledge

See National Operational Guidance – Incident Command(to follow)

Control measure actions

Failure to review information

Hazard	Control measures
Failure to review information	Establish an assurance process Manage performance

Hazard knowledge

The commitment and leadership of the strategic management team is essential to the success of any management system. The service strategic operational risk management policy should set strategic direction, demonstrating how the duty for the provision of operational risk information is linked to the operational duties of firefighters and commanders. It should also describe how this information can be shared with other agencies and where this would be appropriate.

Managing operational risk information is part of an integrated approach to managing risk and ensuring safe systems of work for all employees. Policies should:

- Determine specific responsibility for operational risk information, with a defined role in terms of establishing, implementing and maintaining processes including audit and review, in line with the approach advocated by HSG 65
- Determine and make available those resources required to implement, maintain and develop these processes
- Ensure there is clarity of responsibility between partner organisations, different functions in the fire and rescue service and the roles and responsibilities of managers
- Ensure clear documentation, document control and security procedures are in place
- Ensure that allocation of roles and responsibilities takes account of the competency, level of authority and capacity of individual employees
- Ensure all aspects of information management (relating to providing information for operational pre-planning, incident management and post-incident analysis) is subject to review
- Ensure continuing performance monitoring for relevant personnel, including assessments of their competency and use of the system and ensure any gaps in the effective management of the system are identified
- Ensure that there are effective communication and data sharing protocols within the organisation, and between the partner organisations involved in supplying and receiving operational risk information

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

- Range of possible activities related to fire fighting, road traffic collisions and other emergencies
- Range of employees who may be involved in using operational risk information.
- Capabilities, and likely behavioural responses, of those employees and other persons likely to be involved
- Incident command system and management procedures used
- Protective equipment, vehicles, rescue and fire fighting equipment and any limitations of employees and their equipment

To judge the effectiveness of arrangements for providing and managing operational risk information, procedures should be in place to monitor performance on a regular basis. The procedures should:

- Provide qualitative and quantitative measures of performance at each stage, including post incident reviews
- Regularly monitor and report on the measures relating to performance of the plan
- Record and communicate the results of monitoring – providing information on how the system operates in practice, identifying areas where corrective action is required, providing a basis for continual improvement and providing feedback

Policies and procedures developed for managing operational risk information should be consistent and should comply with data protection and information system security

Control measure – Establish an assurance process

Control measure knowledge

Operational assurance deals with the effectiveness of fire and rescue service arrangements for implementing policies, procedures, guidance, hazard and risk assessments. Observation can enable fire and rescue services to maintain and improve their ability to manage such operational risks, by learning through audits, monitoring and performance reviews.

Auditing is specific in that it is a structured process for collecting information and data on the efficiency, effectiveness and reliability of operational information. Auditing should define the areas to be covered and the benchmarks against which the information will be measured.

The policy should include:

- Preventing injury and ill health of firefighters and other emergency responders
- Managing and mitigating risks in the community
- Continual improvement in providing accurate, relevant and timely operational information
- Complying with the legal duties of fire and rescue authorities in relation to operational risk information
- Complying with formal guidance and 'best practice' models
- Audit and review mechanisms

Control measure actions

Fire and rescue services should:

- Plan audits to determine whether the system has been properly implemented and maintained and is effective in meeting the organisation's policy and objectives. Periodic audit is a useful means to enable a deeper and more critical appraisal of the elements of the operational risk information system.
- Review the results of the audit to support continual improvement and to address weaknesses in the policy or organisation
- Consider independent third party audit and validation to ensure a robust review programme
- Design the assurance audit process to understand the responsibilities and risks faced by a fire and rescue service
- Assess the level of control exercised by management
- Identify, with management participation, opportunities for improvement
- Provide senior managers of the service with an understanding of the degree to which management has achieved its responsibilities and has put in place systems that mitigate the risks associated with the operation of a fire and rescue service, including:
  o Reliability and integrity of operational information
  o Effectiveness and efficiency of operations
  o Safeguarding of assets and data
  o Compliance with laws, regulations and contracts

Control measure – Manage performance

Control measure knowledge

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

Control measure actions

Fire and rescue services should:

- Consider using performance indicators for qualitative and quantitative monitoring of organisational performance as part of an ongoing review process for the operational risk management system
- Ensure that those involved in undertaking the operational risk information processes are competent to:
- Accurately identify hazards for firefighters, society, environment, community, heritage or other risk groups
- Understand the range of risk management options available to mitigate the risk
- Understand their responsibility for the safety of others and the effect of their actions on the effectiveness of the safety system
- Understand the legislative framework within which the fire and rescue service operates

And that they are:

- Capable of making professional judgements, taking account of the availability of information, the severity and likelihood of risk being assessed and the critical nature of the risk management options
- Appropriately motivated and encouraged to work in a safe manner
- Supported in addressing any competency gaps that are identified

Arrangements should also be made to review any circumstances where non-conformity is identified, either as a result of training, at incidents or through regular supervision of the arrangements. The reasons for nonconformity should be communicated so that lessons learned by one part of the organisation can benefit the entire organisation and feed the process of continuous improvement. It is recommended that these findings are shared with other fire and rescue services and other emergency responders.

Failure to record information

Hazard	Control measures
Failure to record information	Take legislative duties into account
	Use national incident recording systems (IRS)
	Use debrief management systems

Hazard knowledge

Policies and procedures should be in place, reflecting that:

- All service activities are part of an integrated approach to managing risk, thereby ensuring safe systems of work for all employees
- All relevant information is recorded and available for those who legitimately need to access the information
- These policies and procedures are 'owned' at strategic management level

In developing the policy, the organisation should consider:

- Legislative duties, outlined in Emergency Fire Control Operations .
- Co-ordination with other 'core' function policies, notably health and safety, integrated risk management, fire safety enforcement and civil resilience
- The needs of those working in the organisation and the hazards they face
- The historical and current performance of the organisation in providing operational risk information and the impact on health and safety and community safety
- The opportunities and needs for continual improvement
- The views of interested parties, including other emergency responders
- Confirming or establishing realistic and achievable objectives

Control measure – Take legislative duties into account

Control measure knowledge

Fire and rescue authorities should take into account the legal responsibilities placed on them, for example Fire and Rescue Services Act 2004, Data Protection Act 1998, and in particular the requirement that all relevant data held by the fire and rescue service should be available and should be used to reduce and manage operational risk, whether this be to firefighters, other service staff or others for which the fire and rescue authority is responsible.

Control measure actions

Fire and rescue services should provide an effective information technology strategy as part of the Integrated Risk Management Plan, including an integrated data/information management strategy for the following activities for information and data that is likely to be required within an operational environment for pre-planning, incident management and post-incident analysis purposes:

- Obtaining
- Analysing
- Storing
- Securing
- Distributing (including to neighbouring fire and rescue services and partner organisations)

Control measure – Use national incident recording systems

Control measure knowledge

An incident recording system (IRS) is a system that enables data on all incidents attended by the fire and rescue service to be collected electronically, providing a national standard of data collection.

The IRS has modernised methods of data gathering to meet new business needs and has replaced manual data input of paper records with a fully automated electronic data capture system. IRS covers all incident types attended by the service, thus providing qualitative data for fire and rescue service planning and performance indicators.

The system will also supply the future data requirements for the fire and rescue service, improving the timeliness and accuracy of data. It may be used to underpin research and development.

Poor quality or inconsistent information will have the following impact:

- Inaccurate performance information
- Poor planning, risk management and decision making
- Inaccurate performance information
- Inaccurate information being shared with partners and stakeholders

Control measure actions

Fire and rescue services should:

Consider using the IRS system for information on all incidents attended, using a core set of questions – leading to a greater knowledge and understanding of how the fire and rescue service operates. Gathering high quality information on the incidents fire and rescue services attend is key to understanding and managing risks with the appropriate resources.

Control measure - Use debrief management systems

Control measure knowledge

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

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

Debriefs are a key component of continuous improvement in all organisations.

Control measure actions

Fire and rescue services should:

- Ensure debriefs always take place at the most practical time following the closure of an incident and that they assist in identifying individual, team or organisational learning, both in areas where improvement could be made and where good practice has been identified
- Ensure all relevant information is recorded. Any tasks resulting from this information should be allocated to an appropriate officer
- Ensure debriefs are led in a structured manner to allow all personnel the opportunity to contribute, to highlight good practice and/or areas of development and to be able to do so in an open and constructive environment. Personnel should reference all associated documentation to the incident – Site-Specific Risk Information, SOPs, training manuals, etc., to ensure observations are as detailed as possible
- Ensure the debrief system is managed to enable reports to be produced from information collected from all debriefs – this data will be open to scrutiny, discussion and action.
- Make sure all actions created can be monitored to ensure that target dates are met and the final outcome of individual issues are published and reviewed

Also see National Operational Guidance: Incident Command(to follow)

Failure to share information

Hazard	Control measures
Failure to share information	Consider intra-operability and interoperability
	Liaise with local resilience forums

Hazard knowledge

To be effective, new management systems should be capable of integrating with existing systems or disciplines within the organisation, in particular, managing health and safety. Fire and rescue

services should consider the integration of fire safety and operational data and ensure that organisational skills are appropriately applied at this critical stage in the operational risk management process.

Managing operational risk information must take into account the existing and future needs for interoperability and mutual aid between neighbouring fire and rescue services and other Category 1 Responders (Civil Contingencies Act 2004). Financial, human and other resources specific to operations should be assessed, including a plan for appropriate technology that takes into account future functionality requirements and the appropriate expertise and training of staff.

Control measure – Consider intra-operability and interoperability

Control measure knowledge

The fire and rescue national frameworks state that fire and rescue services must collaborate with other fire and rescue services, other emergency services, wider Category 1 and 2 responders and local resilience forums, to ensure intraoperability and interoperability.

This includes common and compatible communications systems, equipment, command and control and co-ordination arrangements. Sharing information, intelligence and data effectively is key to such collaboration, ensuring an effective and co-ordinated response to foreseeable risks and emergencies.

Control measure actions

Fire and rescue services should:

- Seek agreement on the terminology, symbology, format and review processes where operational risk information is shared with other fire and rescue services and Category 1 and 2 responders
- Consider the relevant dynamic information that will need to be shared with other emergency responders or partner organisations throughout the course of an incident (Joint Emergency Services Interoperability Programme – Joint Doctrine: The Interoperability Framework)

Control measure – Liaise with local resilience forums

Control measure knowledge

Information is critical to emergency response and recovery, yet maintaining the flow of information within agencies, with partners, and to the wider public, is extremely challenging under emergency conditions. The importance of information for emergency responders and those affected by events must not be underestimated.

Effective information management depends on the appropriate preparatory measures being in place to build situational awareness and on developing a Common Recognised Information Picture (CRIP) at the local, sub-national and national levels (if appropriate). Such measures will need to support:

- Transmitting and collating potentially high volumes of information from multiple sources

- Assessing collated information to ensure its relevance, accuracy, timeliness, accessibility, interpretability and transparency
- Translating available information into appropriate information products; for example, briefing the Strategic Co-ordinating Group or national groups, or releasing it to the media for public information

Particular challenges that may need to be addressed in collating, assessing, validating and disseminating information under emergency conditions may include:

- Information management procedures varying between agencies
- Perspectives on the event or situation differing
- Mistakes and misunderstandings occurring under pressure
- Overloaded communications

Control measure actions

The fire and rescue service should:

- Work with others to establish systematic information management systems and embed them within multi-agency emergency management arrangements to enable the right balance to be struck – in particular, sharing information in a way that is responsive to the needs of emergency responders, and is compliant with data protection and other legislation, needs to be thoroughly understood and tested
- Ensure terms and definitions come from national standards and publications rather than local initiative and invention – parochial usage may interfere with interoperability and co-operation with local partners and neighbouring areas, and may hinder co-ordination at the sub-national and national levels, which also applies to concepts of operation, doctrine and structures
- Expect a shared understanding of respective roles and responsibilities, operational capabilities, procedures, guidance and terminology – this may be further enhanced with robust multi-agency plans for managing the foreseeable risks identified in the National Risk Assessment and Community risk registers

Health, Safety and Welfare – Hazards that exist at every incident

Physical hazards

Hazard	Control measures
Physical hazards	Undertake pre-planning
	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)

	Have a robust incident command structure
	Maintain situational awareness

Hazard knowledge

Physical hazards occur when objects such as equipment and tools, or areas of the working environment, come into contact or have an effect on a person, resulting in the potential to cause actual physical injury.

Examples of physical hazards include:

- Manual handling/ergonomic injuries
- Slips, trips and falls
- Vehicle movement
- Falls from height
- Falls into water
- Temperature extremes
- Noise
- Vibration
- Lighting
- Electrical
- Grinding
- Sharps
- Animals

Some physical hazards can be associated with a variety of actions. For example, a manual handling hazard could be attributed to lifting, posture, awkward and/or repetitive movements, use of force or improper or unsuitable use of equipment. Or a heat induced hazard, as a further example, could be directly related to the weather, to workload/task, or both.

At operational incidents personnel could at times be exposed to higher levels of threat of injury from physical hazards than in normal situations (applicable to the circumstances). In every case a full assessment is vital to put additional control measures in place and avoid unacceptable exposure.

A hazard may outweigh or potentially outweigh the benefit of action. In such cases it may be appropriate to adopt a 'defensive mode' until further measures are implemented. See Incident Command. (to follow)

Control measure –Undertake pre-planning

Control measure knowledge

Fire and rescue services must develop and implement appropriate health and safety arrangements (for example, manual handling, noise awareness, safe working at height or water awareness) with suitable training given to all personnel who respond to operational incidents. This will give personnel sufficient knowledge to carry out dynamic risk assessments.

Control measure actions

Fire and rescue services should:

- Pre-plan for operational responding personnel, which may include preparation on:
- Awareness, risk factors and how injuries can occur
- Carrying out safer working (for example good handling techniques for manual handling, hearing protection for noise)
- Appropriate systems of work for the individual's tasks and environment
- Using mechanical aids, additional equipment and/or protective equipment
- Practical work to allow a trainer to identify and put right anything not practiced safely (for example, initial training application, maintenance of skills and competence, training exercises)
- Core, fitness or preventative techniques (for example, prevention of injury awareness)

Personnel responding to operational incidents must:

- Adopt a safe system of work; individual training, skills and experience will all contribute to a measured and effective solution

Control measure - Eliminate the hazard

Control measure knowledge

Physical hazards should be identified at operational incidents and assessed to establish if it is possible to fully eliminate them.

Control measure actions

Personnel should:

- Remove the source of the hazard once identified and assessed, wherever possible, for example:
  o Manual handling: use specialist equipment or resources
  o Slips, trips and falls: assess routes and working environment (fire ground discipline)
  o Vehicle movement: implement road closures
  o Noise: use other equipment and turn off machinery or equipment when not in use or required
  o Electrical: use the utility company
  o Lighting: monitor the general working environment, weather and time of day

Control measure - Reduce exposure

Control measure knowledge

Where physical hazards cannot be fully eliminated they should be reduced. Reducing exposure could take the form of limiting or reducing the numbers of personnel exposed, limiting the exposure time or considering the location of personnel in relation to a physical hazard and increasing that distance.

Control measure actions

Fire and rescue services should:

- Reduce exposure of personnel, for example:
- Manual handling: rotate personnel, employ a relief strategy, or use alternative means or equipment
- Slips, trips and falls: limit and control personnel, ensure fire ground discipline (installing equipment dumps, clear access routes etc.)
- Vehicle movements: limit the number of personnel within the hazard area
- Noise: rotate crews or the potential personnel exposed and/or maximise the distance between the hazard and personnel
- Falls from height: reduce numbers of personnel within the hazard area to a minimum
- Falls into water: reduce numbers of personnel within the hazard area to a minimum
- Further reduce exposure of personnel by:
    - o Seeking alternative means for the task (e.g. mechanical)
    - o Seeking assistance (e.g. additional personnel to aid movement or lifting)
    - o Requesting the attendance of specialist or technical teams
    - o Using specialist or standard equipment (e.g. additional aids, carry bags, 'breaking in' equipment, lifting equipment, trolleys, working at height equipment)
    - o Reducing the distance of travel and assessing routes
    - o Reducing load weights (divide and distribute to carry loads)
    - o Adopting personal safe lifting techniques

Control measure - Isolate the hazard

Control measure knowledge

Consider isolating the hazard at source, or cordoning to control hazard exposure. Once isolated the hazard will still be present in most cases and may need additional control measures to further reduce the hazard. For example, a trip hazard can be isolated by implementing a cordon, but the hazard is physically still present and as it gets dark an additional control measure may be needed, such as adding lighting to further highlight the hazard.

Control measure actions

Fire and rescue services may reduce a hazard by isolating it, for example:

- Cordon trip or fall hazards
- Use work restraint to prevent crews accessing hazard areas
- Use clear zones (equipment dumps, logistics area)
- Kept generators etc. at the maximum distance possible from the incident
- Use lighting or signage (illuminate or highlight potential hazards)

Control measure - Control the hazard.

Control measure knowledge

A physical hazard can be controlled by communicating regarding the identification of the particular hazard and the control measures in place, and by using further control measures. See National Operational Guidance: Incident Command (Section 5: Organisation on the incident ground) (to follow)

Control measure actions

Fire and rescue services may consider the following actions to control a physical hazard and share the identification:

- Briefings (e.g. individual, team, sector, command, multi-agency)
- Communication (e.g. verbal, radio, signage etc.)
- Recording (risk assessment)
- Monitoring (safety observer)
- Specialist advice (e.g. subject matter advisors, technical advisors or specialists)

Control measure – Wear personal protective equipment (PPE)

Control measure knowledge

Using appropriate protective equipment correctly will afford some levels of protection to personnel.

This is the least favourable method of dealing with the hazard and should be seen as the last line of defence.

Control measure actions

Fire and rescue services must:

- Ensure protective equipment is available and appropriate.
- Ensure protective equipment is worn correctly
- Ensure that protective equipment does not introduce other hazards that may outweigh the benefit (for example, full firefighting PPE in a rural firefighting situation may increase the likelihood of heat-induced illness)

Control measure - Have a robust incident command structure

Control measure knowledge

Recognising and implementing control measures requires a robust incident command structure to be in place. Link to: *National Operational Guidance: Incident Command (Section 8: Safety Management) and (Section 6: Command Support)*

Control measure actions

Fire and rescue services should:

- Clearly communicate risks, both pre-identified and dynamic
- Control tasks and co-ordinate activity
- Have effective leadership

Control measure *-* **Ensure effective situational awareness**

Control measure knowledge

Effective situational awareness will allow personnel in all roles to recognise, identify and communicate hazards. This can be defined as 'safe person principles. See:

(DCLG- Fire and rescue authorities. Health, safety and welfare framework for the operational environment Section 8.

 National Operational Guidance: Incident Command (Non-technical command skills) and (Safety Management: situational risk assessment). (to follow)

Control measure actions

Fire and rescue services should:

Ensure effective situational awareness and application of the 'safe person principles' to make sure that interpretation reflects the actual situation

Biological hazards

Hazard	Control measures
Biological hazards	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)
	Have a robust incident command structure
	Ensure effective situational awareness
	Follow the safe person concept
	Follow post-incident protocols

Hazard knowledge

Biological hazards are hazards that involve living things, whether they come from people, animals, or plants. These hazards are present in the working environment and have the potential to come into contact with firefighters and cause physical injury or illness. By their nature these hazards can be unseen or unidentifiable to personnel (particularly in the case of micro-organisms).

Biological hazards include:

- Infections
- Viruses

- Bacteria
- Bodily fluids
- Animal fluids
- Bites
- Stings
- Zoonosis

A biohazard can enter the body through skin contact, puncture wounds, cuts, inhalation and ingesting contaminated food or drink.

Serious health risks can be attributed to exposure to specific biological hazards, such as acute long term health problems or the risk of miscarriage. See HSE: Infections at work (Appendix 2: Common occupational infection p22-27)

Biological hazards may be encountered in a wide range of operational incidents:

- Hospitals (isolation wards, post mortem areas, medical schools, laboratories)
- Biotechnology laboratories using genetically modified organisms
- Universities and colleges
- Veterinary laboratories, quarantine kennels, abattoirs
- Government research establishments
- Biological, medical, animal research establishments
- Farms, zoos, wildlife parks
- Sewers, sewage treatment plants and flood water
- Casualty handling, transport incidents or other special service calls
- Residential premises where persons may be infected
- Post offices and mail delivery couriers
- Funeral parlours/embalmers
- Biological warfare or terrorist incidents

Control measure – Eliminate the hazard

Control measure knowledge

The potential for biological hazards should be considered at every incident. Wherever possible these hazards should be identified and assessed to establish if they can be fully eliminated.

It is likely that it will not be possible to identify the presence of biological hazards at an incident. However, it should be assumed that biological hazards may be present.

Control measure actions

Fire and rescue services should remove the source, or potential source, of the hazard once identified and assessed, wherever possible:

- Consider the appropriate incident type. For example, does the hazard identified now turn this event into a hazmat or environmental incident?

- Consider whether the incident can be handed over to another responsible agency. For example, the Environment Agency, RSPCA, Public Health England, coastguard or police services or the Highways Agency
- Evaluate alternative routes or access to the scene of operations or tasks
- Consider whether the identified source of the hazard can be removed from the scene of operations ,if it does not affect the task or operations
- Contain animals or arrange for them to be removed

Control measure - Reduce exposure

Control measure knowledge

If it is not possible to fully eliminate biological hazards, then exposure should be reduced. This can be achieved by reducing time in the risk area, increasing the distance from possible sources of contamination and increasing the shielding available. Good hygiene policies should be put in place, such as not allowing eating and drinking. Decontamination, including using hand scrub, can also assist in controlling the hazard.

Control measure actions

Fire and rescue services should:

- Reduce exposure by:
- Time (the length of time that personnel are exposed)
- Distance (consider the location of personnel in relation to a hazard and increase that distance)
- Limiting numbers of personnel exposed (for example, allowing minimal or limited numbers of personnel into the identified hazard area/proximity)
- Seek further specialist advice or assistance (e.g. ambulance service, veterinary specialist, doctor, Public Health England, Environment Agency etc.)
- Use specialist or additional protective equipment (e.g. respiratory protection, protective suits/clothing, medical gloves, specialist equipment)
- Instigate and communicate a hygiene plan/arrangements, providing hygiene facilities and considering potential decontamination requirements

Control measure - Isolate the hazard

Control measure knowledge

Consider isolating the hazard at source, or cordoning to control hazard exposure.

Control measure actions

Fire and rescue services should:

- Isolate the hazard, but consider that in most cases the hazard will still be present and may need further control measures, for example:

- o Bodily fluids may still remain within the working area after casualty removal – cover or isolate affected areas
- Use cordons and signage to identify a hazard
- Restrict access to areas or locations
- Identify equipment used and isolate from further use until appropriately cleaned

Control measure - Control the hazard

Control measure knowledge

The presence or likelihood of biological hazards can be controlled further by communicating information and making personnel within the working/hazard area fully aware. Further control measures may also be considered.

Control measure actions

Fire and rescue services may consider the following actions to control a biological hazard:

- Recording (risk assessment).
- Briefings (e.g. individual, crew, team, sector, command, multi-agency)
- Communication (verbal, radio, signage etc.)
- Monitoring (safety observer, specialist equipment).
- Hygiene/welfare, decontamination and post-incident considerations and provisions

Control measure – Wear personal protective equipment (PPE)

Control measure knowledge

Using the appropriate protective equipment correctly will offer various levels of protection to personnel. This is the least favourable method of dealing with the hazard and should be seen as the last line of defence.

In addition to conventional personal protective equipment such as fire kit, additional items of protection should be considered, such as:

- Antibacterial wash
- Antibacterial wipes
- Protective gloves (first aid type)
- Respiratory protection (for example, breathing apparatus, dust/vapour masks etc.)
- Specialist protection suits (for example, gas tight/chemical coveralls)

Control measure actions

The fire and rescue service should:

- Ensure protective equipment is available and appropriate
- Ensure protective equipment is worn correctly by all personnel

- Consider that protective equipment may introduce other hazards that may outweigh the benefit (for example, full firefighting PPE in a rural firefighting situation may increase the likelihood of heat-related illness)

Control measure – Have a robust incident command structure

Control measure knowledge

Recognising and implementing control measures requires a robust incident command structure to be in place. See:

DCLG/CFRS: GRA 5.4 - incidents involving biological hazards

National Operational Guidance: Incident Command (Non-technical command skills) and (Safety Management). (to follow)

Control measure actions

Fire and rescue services should:

- Carry out information gathering
- Communicate risks, both pre-identified and dynamic, clearly
- Control tasks and co-ordinate activity
- Have effective leadership

Control measure – Maintain situational awareness

Control measure knowledge

Effective situational awareness will allow personnel in all roles to recognise, identify and communicate hazards. (HSE: Knowing what's going on around you - situational awareness. See, National Guidance: Incident Command (Non-Technical command skills) and (Safety Management). (to follow)

Control measure actions

Fire and rescue services should:

Ensure effective situational awareness – to make sure that interpretation reflects the actual situation

Control measure - Follow the safe person concept

Control measure knowledge

All operational incidents require personnel to be responsible for their own safety as well as the safety of others.

A safe person in the operational environment will significantly reduce the threat of injury and provide and communicate appropriate hazard information. See:

 Fire and Rescue Authorities - Health, safety and welfare framework for the operational environment (DCLG) (8.2 the safe person, individual responsibilities),

National Guidance: Incident Command (Safety management) (to follow)

Control measure actions

All personnel attending operational incidents should apply 'the safe person concept' by:

- Having a level of competency
- Having a level of self-awareness
- Being observant and aware
- Being decisive
- Being able to identify and communicate hazards

Control measure – Follow post-incident protocols

Control measure knowledge

Fire and rescue services should provide for effective health surveillance of all operational staff likely to be exposed to, or potentially be infected by, any biohazards during the course of operational duties. See Incident Command Non-technical command skills and Safety Management), (to follow)

Control measure actions

Fire and rescue services must:

Develop and implement appropriate measures and arrangements to identify, monitor and record exposures of staff to biohazards, to meet the legislative requirements of the Control of Substances Hazardous to Health (COSHH), Reporting of Injuries, Diseases, Dangerous Occurrences (RIDDOR) and The Health and Safety at Work Act 1974.

Chemical hazards

Hazard	Control measures
Chemical hazards	Identify the hazard
	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Control the hazard
	Wear personal protective equipment (PPE)
	Have a robust incident command structure
	Ensure effective situational awareness
	Follow post-incident protocols

Hazard knowledge

The term 'chemical hazard' refers to liquids, gases or solids that can harm people, other living organisms, property or the environment.

Certain chemicals pose various health hazards when they are inhaled, come into contact with the skin or eyes, or are ingested. Examples include:

- Gases
- Dusts
- Fumes
- Vapours
- Liquids
- Toxic substances
- Corrosive substances
- Asphyxiates
- Solvents
- Smoke
- Carbon monoxide
- Radioactive substances
- Asbestos

Fire and rescue service personnel attend a wide variety of incident types and may be called on to deal with chemical spillages or releases. Fire and rescue operations may produce chemical hazards, such as fire water run off. In some cases the incident attended will manufacture chemical hazards such as smoke or carbon monoxide.

There are therefore vast numbers and diverse types and volumes of potential chemical hazards that could pose a threat to firefighters. Chemical hazards could also be revealed, encountered or used in storage, manufacturing processes, disposal or waste processes and are therefore likely to be present at most operational incidents.

Exposure to a chemical may affect the health of individuals or of the wider population and can in extreme cases lead to fatalities. The effects may be immediate or delayed. Incident commanders and firefighters must evaluate and assess the hazards.

When approaching an incident with casualties and there is no known reason for their incapacity, incident commanders should use the Step 1-2-3 model.

See DCLG/CFRA- Hazardous materials: operational guidance for the fire and rescue services

Control measure - Identify the hazard

Control measure knowledge

Chemical hazards should be identified at incidents. It is vital to identify the type of chemical(s) and to adopt appropriate control measures. It may also be appropriate, and a requirement of the incident

safety management, to seek further information or advice to manage any threats to firefighters effectively.

Control measure actions

Fire and rescue services should:

- Decide whether the hazard(s), once identified and assessed, warrant an alternative or enhanced response to the incident. For example:
    o Crews may be mobilised to an incident and when in attendance chemical hazards are identified. It may be appropriate to re-class the incident as a HAZMAT.
- Seek and use additional assistance to aid identification (specialist response, advice, equipment)
- Develop a specialist hazardous materials ten point risk assessment. See DCLG/CFRA-Hazardous materials: operational guidance for the fire and rescue services)

Control measure - Eliminate the hazard

Control measure knowledge

Chemical hazards should be identified at incidents and assessed to establish if it is possible to fully eliminate the hazard. It is vital to identify the type of chemical and seek further information. It is unlikely that initial attendance personnel will be able to eliminate hazards of this nature.

Control measure actions

Fire and rescue services should:

Eliminate the hazards, for example:

- Isolate leaks, gas or vapour
- Remove a chemical from the area of operations (only if safe to do so)
- Utilise specialist equipment (HAZMAT, Environment Agency provided etc.)
- Ventilate (e.g. ventilate a confined area).
- Contain the hazard

Control measure - Reduce exposure

Control measure knowledge

If it is not possible to fully eliminate chemical hazards, then exposure to the threat should be reduced. This can be through dilution, dispersal, reducing exposure time, increasing the distance from the chemical and limiting the numbers or people exposed.

Control measure actions

Fire and rescue services can reduce exposure by:

- Adopting 'STEP 1-2-3 : Safety Triggers for Emergency Personnel'
- Limiting the length of time that personnel are exposed to the hazard

- Limiting numbers of personnel exposed
- Wearing specialist PPE (e.g. gas tight suit/chemical protection coverall that reduce the exposure of personnel to the hazard)
- Considering the location of personnel in relation to a hazard and increasing that distance
- Selecting upwind access routes and rendezvous points
- Putting measures in place to dilute or disperse the chemical – this should only be done once the substance has been identified and where this tactic is appropriate

Control measure - Isolate the hazard

Control measure knowledge

Consider isolating the hazard at source, or cordoning to control the hazard exposure.

Control measure actions

Fire and rescue services should:

- Isolate the hazard, but consider that in most cases the hazard will still be present and may need further control measures, for example:
- Purpose built containment.
- Solutions or adaptations (e.g. use of jets/sprays to damp down or suppress gas/vapour clouds)
- Inner and outer cordons (established, controlled and managed).
- Mechanical isolation (e.g. valves, turn off keys, emergency isolation)

Control measure - Control the hazard

Control measure knowledge

A physical hazard can be controlled by communicating that a particular hazard has been identified, or by using further control measures.

Control measure actions

The fire and rescue service should consider the following actions to control a chemical hazard:

- Briefings. (e.g. multi-agency, command, sector, team, individual)
- Communication (e.g. verbal, radio, media)
- Recording (risk assessment)
- Monitoring (e.g. specialist advisor, safety observer)

Control measure - Wear personal protective equipment

Control measure knowledge

It is vital that accurate identification and assessment is made at all operational incidents to allow the incident commander to accurately determine the level of protective equipment that personnel will

require. Following assessment, it may be more appropriate to await further specialist advice or support.

The protective equipment available will vary greatly, from standard issue PPE (personal protective equipment) and breathing apparatus to more specialist equipment (such as chemical protective clothing and monitoring equipment). Personnel should be trained, familiar and aware of how each item of protective equipment protects them and what level of protection it affords.

Control measure actions

Fire and rescue services must:

- Identify the nature of the hazard.
- Not commit personnel to a hazard area until the minimum level of PPE can be achieved
- Consider specialist equipment
- Consider the decontamination requirements and processes the hazard and equipment may require

Control measure - Have a robust incident command structure

Control measure knowledge

Recognising and implementing control measures requires a robust incident command structure to be in place. See National Operational Guidance: Incident Command (Safety Management) (to follow)

Control measure actions

Fire and rescue services should:

- Carry out information gathering
- Communicate risks, both pre-identified and dynamic, clearly
- Control tasks and co-ordinate activity
- Have effective leadership

Control measure - Ensure effective situational awareness

Control measure knowledge

Effective situational awareness will allow personnel in all roles to recognise, identify and communicate hazards. See National Operational Guidance: Incident Command (Non-technical command skills) (to follow)

Control measure actions

Fire and rescue services should:

Ensure effective situational awareness – to make sure that interpretation reflects the actual situation

Control measure – Follow post-incident protocols

Control measure knowledge

Fire and rescue services should provide for effective health surveillance of all operational staff likely to be exposed to, or potentially be infected by, any chemical hazards during the course of operational duties. See National Operational Guidance: Incident Command (Non-technical command skills) and (Safety Management) (to follow)

Control measure actions

Fire and rescue services must:

Develop and implement appropriate measures and arrangements to identify, monitor and record exposures of staff to chemical hazards, to meet the legislative requirements. See:

 Control of Substances Hazardous To Health (COSHH)
Reporting of Injuries, Diseases, Dangerous Occurrences (RIDDOR)
The Health and Safety at Work Act 1974

Psychological hazards

Hazard	Control measures
Psychological hazards	Undertake pre-planning
	Have a robust incident command structure
	Eliminate the hazard
	Reduce the exposure
	Isolate the hazard
	Communicate
	Ensure effective situational awareness
	Follow the safe person concept
	Consider welfare
	Follow post-incident protocols

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 have a direct impact on 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 (post 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 from individual to individual and from team to team. As each incident is different, the exact pressures and demands are difficult to predict. Fire and rescue service staff should 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.

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 the reactions or wellbeing of an individual may differ, or be affected in a variety of ways and at many levels.

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 with occupational health arrangements (such as identifying, reporting, monitoring and self-reporting measures and arrangements)

Control measure – Undertake pre-planning

Control measure knowledge

The possible impact can be minimised by being aware of the causes and potential effects of the pressure and stressors that may occur at operational incidents and ensuring that these form part of occupational health policies and operational policy development. See:

DCLG[Fire and Rescue Authorities. Health, Safety and Welfare Framework for the Operational Environment](Section 13 p51: Welfare at incidents)

 National Operational Guidance: Incident Command Resilience and pressure management) (to follow)

Control measure action

Fire and rescue services should:

Ensure that operational staff who are required to work under the pressure of psychological hazards are aware of the effects and symptoms of excessive pressure. This can help to build resilience and support effective operations in stressful environments.

Control measure - Have a robust incident command structure

Control measure knowledge

A robust incident command system will ensure actions and tasks to aid hazard identification are instigated and allow mechanisms to be established to reduce these hazards, whilst still functioning in an emergency environment. See National Operational Guidance: Incident Command(to follow)

Control measure actions

The fire and rescue service should:

- Instigate incident command at every incident
- Establish means of identifying and communicating critical information and monitoring health, safety and wellbeing

Control measure - Eliminate the hazard

Control measure knowledge

Psychological hazards should be identified at incidents and assessed to establish if it is possible to fully eliminate the hazard.

Control measure actions

Fire and rescue services should:

- Remove the source or potential source of the hazard, wherever possible, once identified and assessed. For example:
- Work loads or tasks can be further divided or spread (e.g. sectorisation, spans of control)
- Use the police service (cordon, restricting access)
- Request further resources.
- Use specialist teams
- Manage fatigue (with a relief strategy or a rotation system)
- Hand over responsibility to another appropriate agency (police or ambulance service, funeral director etc.)

Control measure - Reduce exposure

Control measure knowledge

If it is not possible to eliminate psychological hazards, then exposure should be reduced. This can be achieved by reducing the time of exposure and avoiding repeating the exposure. Crew commanders should bear in mind the degree to which individual crew members are more or less likely to be affected. See:

DCLG - Fire and Rescue Authorities. Health, Safety and Welfare Framework for the Operational Environment. (Section 13 p51: Welfare at incidents)

National Operational Guidance: Incident Command (Organisation of the incident ground) (to follow)

Control measure actions

Fire and rescue services should:

- Consider reducing exposure by:
- Implementing Incident Command System (ICS)
- Reducing the length of time that personnel are exposed
- Limiting numbers of personnel exposed
- Utilising and arranging the management of cordons
- Using other agencies (for example, the police service for public order and crowd control)
- Using specialist teams

Control measure - Isolate the hazard

Control measure knowledge

Consider isolating the hazard at source, or cordoning to control hazard exposure. For example, Firefighters could be protected from viewing a traumatic scene by using sheeting.

Control measure actions

Fire and rescue services should:

- Isolate the hazard, but consider that in most cases the hazard will still be present and may need further control measures, for example:
- Erect screens or sheeting
- Close roads
- Control access to identified areas

Control measure - Communicate

Control measure knowledge

Psychological hazards can be controlled by communicating that a potential or particular hazard has been identified. See Incident Command Non-technical command skills communication and Safety Management (to follow)

Control measure actions

The fire and rescue service should consider the following communication actions:

- Briefings (individual, team, sector, command, multi-agency)
- Communication (verbal, radio, media etc.)
- Recording (risk assessment)
- Monitoring at incident (advisors)
- Post-incident procedures (health monitoring/exposure documentation)

Control measure – Ensure effective situational awareness

Control measure knowledge

Situational awareness is a person's perception and understanding of the situation. Effective situational awareness will allow personnel in all roles to recognise and identify hazards or the

potential for a hazard to exist . See National Operational Guidance: Incident Command (Communication) and (Resilience and pressure management) (to follow)

Control measure actions

Fire and rescue services should:

Ensure effective situational awareness – to make sure that interpretation reflects the actual situation it is vitally important that all operational personnel display levels of situational awareness and have the ability to not only identify hazards, but be able to communicate to others and wherever appropriate apply control measures to reduce the hazard potential further

Control measure – Follow the safe person concept

Control measure knowledge

All operational incidents require personnel to be responsible for their own safety as well as the safety of others.

A safe person in the operational environment will significantly reduce the threat of injury or harm to themselves or others.See:

National Operational Guidance: Incident Command (non-technical command skills Resilience and pressure management) (to follow)

DCLG - Fire and Rescue Authorities. Health, Safety and Welfare Framework for the Operational Environment. Section 8 (p27 the safe person principles)

Control measure actions

Fire and rescue services should:

Ensure individual personnel have a level of competency and self awareness, are observant and aware with the ability to be decisive and be able to communicate hazards

Control measure - Consider 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.

National Operational Guidance: Incident Command (Resilience and pressure management) (to follow)

Control measure actions

The fire and rescue service should:

- Consider implementing appropriate welfare arrangements to reduce, and in some cases prevent, psychological hazards. For example:

- Rest and recovery opportunities
- Hygiene arrangements
- Toilet facilities
- Relieving and rotating personnel.
- Hydration and refreshment
- Wellbeing and support

Control measure - Follow post-incident protocols

Control measure knowledge

Fire and rescue services should provide for the effective health surveillance of all operational staff – effective post-incident protocols will ensure that any exposure to psychological hazards can be monitored. See National Operational Guidance: Incident Command (Safety Management) (to follow)

Control measure actions

The fire and rescue service should consider post-incident protocols. For example:

- Debrief processes
- Monitoring health, fitness and wellbeing
- Legal requirements (for example, reporting accidents, injuries or near misses: RIDDOR).
- Exposure records and documentation.

Incident closure and handover – Preparing for redeployment

Closing an incident too early

Hazard	Control measures
Closing an incident too early	Have a robust incident command structure Consider operational competency

Hazard Knowledge

All operations carried out on the incident ground should aim to achieve the operational objectives specific to the incident type, using prescribed techniques and procedures in accordance with the tactical plan. They should achieve the strategic aims of the level of command in operation. Decision making at incidents will either be the responsibility of the incident commander, at smaller type incidents, or as part of a joint decision in conjunction with other agencies in attendance, incorporating all of the applicable policies and procedures.

At all incidents the incident commander must focus on safety and effectively resolving the incident. They must work at a tactical level, in conjunction with other services and agencies as necessary, to ensure a return to a normal or steady state as soon as practicably possible. Nonetheless, if the incident commander fails to undertake an accurate and appropriate assessment of the situation, an inaccurate dynamic and analytical risk assessment may be drafted. This may lead to an inappropriate

operational plan being executed, failing to recognise the vision of what a normal or steady state looks like. Such actions may ultimately lead to the fire and rescue service resources leaving the incident too early, with hazards remaining unaddressed.

Fire and rescue services need to be aware that attendance at an incident may have been requested by other emergency agencies. On such occasions, while the role of the fire and rescue service will not be of 'primacy' for the incident as a whole, this does not mean the incident commander should not ensure the correct incident command protocols are applied throughout the incident.

Control measure – Have a robust incident command structure

Control measure knowledge/ Control measure actions

See:

National Operational Guidance: Incident Command (to follow)

Joint Doctrine: The Interoperability Framework.

Control measure - Consider operational competency

Control measure knowledge

'Competence' is the ability to achieve and repeat the necessary level of workplace performance. It links to the National Occupational Standards (NOS) in an individual's role map.

Commanding operational situations is different to managing controlled and defined situations or workplace scenarios. Commanders need a range of qualities, technical and non-technical skills to deal with the wide-ranging nature of emergencies.

Effective commanders:

- Are self-aware
- Are well-trained
- Have sound situational awareness
- Are able to lead, direct and instruct others
- Can apply sound judgement and effective decision-making

Fire and rescue services should be confident that their selection processes ensure that people who perform command functions are capable of doing so under the expected pressures of emergency incidents. They should demonstrate the potential to deal with situations where there is sustained pressure and stress.

A good incident commander will:

- Be calm and controlled
- Understand the situation
- Plan the steps to resolve it.
- Make sure these steps are carried out

Fire and rescue services should ensure they train and assess their incident commanders. They should ensure incident commanders understand and have practised the skills they need for command. They should also equip them with the operational knowledge needed to resolve the full range of incidents

Incident commanders should have adequate technical knowledge of incident command and operational procedures. They should also know the health and safety requirements and other relevant legislation. A fire and rescue authority or incident commander can face prosecution for not complying with a legal duty or requirement.

Relevant control measures include:

- Simple and straightforward policies and procedures that identify legal considerations
- Consistent and reliable selection processes that assess technical skills
- Appropriate training and development
- A system for gaining and maintaining technical knowledge

Fire and rescue authorities need to consider the legislation relevant to incident command practised at operational incidents and in training.

A key challenge for the fire and rescue service is maintaining leadership and command competence at the highest standard. Command competence is made up of a number of components. An individual's personal qualities and attributes are as important as their knowledge and understanding.

Active monitoring may provide an opportunity to review and assess the leadership and skills of an incident commander. It has a role in promoting a positive leadership culture.

Likewise, the person who monitors them should be both helpful and constructive. The aim of this process is continuous improvement and support. The role of the active monitoring officer is to review and enhance operations. Both parties should aim to achieve the best outcomes. For this reason it may be appropriate to act as coach or mentor during the incident.

See:

- [Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment](#)
- [Striking the Balance](#)
- [Heroism in the fire and rescue service](#)
- [The Fire and Rescue Services Act (2004),](#) the [Fire (Scotland) Act 2005](#), and the [Fire and Rescue Services (Northern Ireland) Order 2006.](#)

Control measure actions

Incident commanders should:

- Be conversant with the hazards and risks specific to command and ensure they are able to put an effective incident command system in place See National Operational Guidance Incident Command

The fire and rescue service should:

- Design and put in place a framework of competence for their incident commanders. This framework should equip incident commanders with:
- Behaviours
- Skills
- Knowledge of tactical operational guidance
- Understanding of their responsibility for health and safety
- Have methods of assessing how effective their incident commanders are
- Consider holding a personal review at the conclusion of an incident – taking the time to reflect can help individuals to review the way they acted and the decisions they made. This will allow them to recognise any development they would benefit from – they should ensure they act to address this as soon as they can.
- Consider the most suitable ways of providing operational assurance during an incident – this active monitoring should help identify where the incident commander did not act as expected or act in line with training and guidance and can provide support for them at the incident if they need it. This active monitoring process should assess both technical and non-technical command skills, and should explore:
- What they decided to do
- Why they selected those actions
- How they completed them

See: Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment, June 2013, Section 10.

Skills for Fire and Rescue: Operational Competence and Command Competence

Relaxation of command and control during 'make up' operations

Hazard	Control measures
Relaxation of command and control during 'make up' operations	Have effective organisation on the incident ground Have appropriate safety management

Hazard knowledge

Personnel must not become complacent in the closing stage of an incident. The process of task and hazard identification, assessment of risk, planning, organisation, control, monitoring and review of preventive and protective measures must continue until the last appliance leaves the incident ground. There are usually fewer reasons for accepting risks at this stage because there are fewer benefits to be gained from the tasks being carried out. Officers should, therefore, have no hesitation in halting work to maintain safety.

Control measure – Have effective organisation on the incident ground.

See National Operational Guidance: Incident Command (to follow)

Control measure – Have appropriate safety management

For more information on safety management please refer to Incident Command guidance. (to follow)

Control measure knowledge

Fire and Rescue Services need to be cognisant of the guidance and directions contained in the Fire and Rescue Authorities, Health, Safety and Welfare Framework for the Operational Environment, June 2013; Section 4, 6, 7, 8,9,10,12,13 and Appendix 2,3,4,and 5.

Control measure action

Fire and rescue services should ensure they apply industry best practice when formulating their operational policies and procedural guidance.

Failure to share information

Hazard	Control measures
Failure to share information	Have a communication strategy

Hazard knowledge

Please refer also to Incident Command guidance. (to follow)

Effective communication is important at all incidents. Accurate and appropriate information must pass between the incident commander and crews. Crews need to know the tactics the incident commander wants to use. Incident commanders need to stay up-to-date with what is happening on the incident ground. The incident commander also has a duty to make sure messages and information are passed to mobilising control. This will ensure that an accurate record of the incident is maintained.

Control measure – Have a communication strategy

Control measure knowledge

Please refer also to Incident Command guidance. (to follow)

The aim at every incident is to integrate communications and decision making between the incident commander and operational personnel. Effective communication is fundamental to the assertive, effective and safe resolution of incidents. It provides the incident commander with knowledge about the situation and the progress of tasks. Obtaining accurate, appropriate and timely information is crucial to underpin situational awareness and subsequent decision-making.

Communication plays a vital role in co-ordinating activities, completing tasks and handing over command. Sharing accurate, appropriate and timely information is also critical for helping others to have a common understanding of the situation, what is happening and what needs to happen next. Even the most effective plans will only work if the people putting them into practice understand them.

As well as exchanging information, good communication helps to build relationships between people. These relationships are important so that people are effective when they carry out their tasks. Incident commanders should know how important communication is for their own leadership. Good communication makes it easier and more effective for people to follow them.

See the JESIP joint doctrine , Part 1, Page 3, Section 3, sub section 3.2, Communication, Pages 6-9, Annex A & B)

Failure of communication

Communication can fail when information is not shared at the right time or is not understood by the receiver. This can lead to:

- Incorrect or inappropriate information being used to assess a situation, resulting in poor individual situational awareness. This can lead to inconsistent shared situational awareness
- Incorrect or inappropriate information leading to a faulty perception of events unfolding. This may result in the wrong decisions being taken for the actual situation
- Failure to co-ordinate team activities, causing task conflicts between fire and rescue service teams or with other agencies
- 'Freelancing' because of a breakdown in leadership and followership
- Increased risk of accidents because risk-critical information is not shared or understood

Effective communication

Some qualities of effective communication include:

- Information is received and confirmed as being from a reliable and credible source before being acted upon
- Information is clear – avoid ambiguity by using commonly understood terms. This is especially important when working with other agencies. Remember that for other agencies some terms might have different meanings
- Information is relevant, appropriate and concise – keep communications to the point, incorrect information can overload the receiver and the meaning can be lost
- Information exchange is timely - communications should be made at an appropriate point in time. To avoid distractions from critical tasks consider how urgent the information is and the current task demands of the receiver
- Confirm understanding - this prevents misunderstanding and differences in shared situation awareness
- Question assumptions – both senders and receivers of information may have assumptions about the information. Incident commanders should question and clear up assumptions. This will help to make sure what they say is what the other person hears and understands
- Assertiveness – there is a clear benefit to being assertive to clarify meaning and test assumptions. Both confidence and status can affect the ability to be assertive under pressure
- Listen effectively – the environment at an incident can make it harder to communicate. Noise, adverse weather conditions and heightened levels of activity can be distracting and make listening difficult. Pre-conceptions about the status of the person who is communicating may also affect listening

- Matching words and behaviours – people are constantly communicating, even when not using words. When verbal and non-verbal messages match, it helps people to make sense of the message. For example, a calm approach reinforces a reassuring message

The purpose of communication is to provide another person with information. This typically involves three factors:

- The meaning of the message from the sender
- The actual message passed
- The meaning of the message understood by the recipient.

An incident commander should be aware that messages are not always understood in the way they are intended. Problems with messages arise because the sender often assumes the person receiving their communication has the same understanding. Sometimes this is not the case because the person receiving the message extracts meaning in a way that makes sense to them. Incident commanders should check the other person's understanding of important messages.

The incident commander should be aware of both their own assumptions, and those of the person with whom they are communicating. They should test assumptions and make information clear. They should make sure the other person has accurately understood the message.

Communication at an incident may be:

- One-way communication: there are times when direct one-way communication may be appropriate. The sender will deliver a message with no opportunity for feedback. This form of communication is rapid and puts the sender in control of the message. But the lack of feedback from the recipient means that they cannot confirm their understanding
- Two-way communication: this offers the receiver the opportunity to feedback to the sender. Information flows between them. Whilst this often takes longer than one-way communication it can be more accurate because it provides an opportunity to confirm the intended meaning

Communication at incidents can occur in different forms – verbal, non-verbal (mobile DAT Terminals, internet, for example) and written (e.g. SSRIs, Tactical Fire Plans, Standard Operating Procedures).

The incident commander should give consideration to how people will perceive non-verbal communication. Non-verbal communication is important when briefing crews or liaising with other agencies. They should consider it carefully when they interact with members of the public in an emergency situation as these people may be highly sensitive to the emotional states of others. The incident commander's non-verbal behaviour should match their message.

It is important to maintain open and effective communications. There may be many lines of communication and they are a major aid to control. Examples include direct or indirect reports from individuals, crews or sectors.

Other parties will also be communicating - emergency services, assisting agencies and fire control centres. When assessing the span of control, consider how to manage communications. Take into account the pressure this may put on an incident commander. It is critical to share communications in a way that will support a common picture of the incident.

The commander should be able to cope with the flow of information. It is important to limit both direct communication and information flows to manageable levels. Failure to keep communication manageable can have a negative effect at an incident. It could result in poor communication of risk-critical information or overlooking it.

It is ideal to keep the span of control for tactical roles as narrow as possible. Do not give individuals so many aspects that they cannot give them enough attention.

Throughout all aspects of communication, fire and rescue services and their employees need to be aware of the potential for misuse of information and mindful of the legal requirements placed on them in by the Data Protection Act 1998 and the Freedom of Information Act 2000.

Control measure actions

 See :

Fire Service Manual, Volume 4, Fire Service Training, Appendix 2 Fireground Communications

JESIP joint doctrine Part 2, Ways of Working Sections 1 & 2, Page 10 - 16, Section 3, sub section 3.2, Communication)

Effective communication

Incident commanders should:

- Consider key principles – due to differing sizes, types and locations of incidents the format and establishing of a 'communication structure and strategy' will undoubtedly differ, but key questions should be considered:
- Is the communication structure and strategy to be applied, appropriate for the incident, effective and resilient?
- Is the information received in support of the incident accurate, appropriate and timely?
- Is the information from a reliable credible source?
- Is there a security requirement of the information received and what is the appropriate method for the communication and maintenance of this?
- Who needs to be informed of the information, and how?
- What is the relevance of the information? (Incident Command Guidance)
- Establish effective arrangements for communication – a good flow of information is one of the most important assets on the incident ground. An incident commander should make sure that they can:
  - o Gather information
  - o Issue orders to staff
  - o Receive situation reports from all areas, including sector commanders
  - o Assess and provide for the needs of other agencies
  - o Carry out a risk assessment and add this to the briefing on arrival – crews will be briefed about the tasks they need to perform and the hazards and risks they face. Briefing crews thoroughly is essential to share any safety critical information. Incident commanders may also hold briefings on the way to an incident

- The extent of the briefing will depend on an incident's type and scale. For example, the pre-briefing for small fires may be straightforward. Where crews have little experience or there is high risk then a comprehensive brief may be needed.
- Debrief crews that have withdrawn from a working area during an incident – debriefs are a good source of safety information and this should not be overlooked
- Gather information, issue orders and receive situation reports
- Assess the needs of other agencies and plan to meet them
- Establish suitable arrangements for communications (usually the role of command support, under guidance of the incident commander):
    - Establish communication links with fire and rescue service control
    - Ensure they correctly assign radio channels and call signs
    - Establish communications with other agencies
    - Establish communications with sector commanders and receive regular situation reports
    - Ensure sector commanders can communicate between themselves
    - Use local systems; some new and complex buildings and structures, including those extending underground, have communication systems installed for use by emergency services

The fire and rescue service should:

- Ensure there is resilience within all their communication strategies and aligned equipment used within the incident ground
- Ensure appropriate control measures are in place to support reinstating operational communication across all aspects of operational incident command in the event of equipment and strategy failure

Failure to make resources ready for redeployment or otherwise before leaving the incident ground

Hazard	Control measures
Failure to make resources ready for redeployment or otherwise before leaving the incident ground	Communicate effectively Consider welfare Ensure effective organisation of the incident ground Manage inspect and test equipment Wear personal protective equipment (PPE)

Hazard knowledge

The responsibilities of the incident commanders in relation to managing operational resources, including personnel, does not end when the incident is in its 'closing stage'. All equipment used at the incident will need to be accounted for, made up and, on return to the station, either need to be

replenished or be subjected to the necessary testing requirements before being made fully operational again.

Communication between the commander of appliances, crew members and control is essential throughout this phase to ensure all parties have knowledge of the operational status of appliances and crews before leaving the incident ground. Failure to communicate could result in service control incorrectly deploying the appliances and crew members to further incidents for which they are inappropriately equipped.

Effective communication is important at all incidents. Accurate information should pass between the incident commander, crews and service control. The incident commander also has a duty to make sure messages and information are passed to service control. This ensures they maintain and record an accurate picture of an incident and the availability of operational resources.

Control measure – Communicate effectively

Control measure knowledge

Fire Service Manual, Volume 4, Fire Service Training, Appendix 2 Fireground Communications

National Operational Guidance: Incident Command (Effective Communication) (to follow)

 Control measure actions

The incident commander should:

- Consider whether appliances can remain at the incident ground, whilst being available for deployment to other incidents – this decision should be based on an analytical risk assessment and service control should be informed of this status change. Crew members for appliances that are available from the incident should be informed and deployed in support of this.

DCLG Operational Guidance Breathing Apparatus

Control measure – Consider welfare

Control measure knowledge/ Control measure actions

Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment Section 13 Welfare at Incidents, sub section 13.1-13.3, Planning for welfare and well-being at incidents, Page 51

National Operational Guidance: Incident Command (Welfare) (to follow)

Control measure – Ensure effective organisation of the incident ground

Control measure knowledge/ Control measure actions

National Operational Guidance: Incident Command (Support or Functional Sectors) (to follow)

Control measure – Manage, inspect and test equipment

Control measure knowledge

(Fire Service Manual, Volume 1, Fire Service Technology, Equipment and Media, Inspection and Testing of Equipment, Chapter 3: Inspection, Testing and Maintenance, sub section 3.4 – 3.17.2)

Control measure actions

The incident commander should:

- Consider the appliances that can be released from the incident for redeployment - give priority to front line or specialist appliances and consider the length of time crews have been deployed at the incident and their roles
- Ensure that the appliance is brought back to operational readiness on return to station as a priority – operational equipment should be inspected and tested according to policy and the test result recorded. Any necessary cleaning should be completed and the appliance should be fully re-stowed.

The crew commander should:

- Ensure that the appliance is re-stowed with all equipment and any deficiencies should be recorded, before leaving the incident ground – service control should be informed and as far as possible crews should leave the incident ground ready to respond to further calls. The crew commander has responsibility for all crew members and equipment stowed on their appliance.

National Operational Guidance: Incident Command (Analytical Risk Assessment) (to follow)

National Operational Guidance: Incident Command (Analytical Risk Assessment, Fire Decision Model (to follow)

Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment Section 5, Formulating Health and Safety Policy for the Operational Environment, sub section 5.1, paragraph 3, Arrangement for procuring and maintaining operational equipment / plant Page 12-13.)

**Control measure – Wear personal protective equipment (*PPE)*

Control measure knowledge

When PPE has become dirty, contaminated or damaged it may not perform to the standard required and stipulated within the appropriate standards specification

PPE should only be worn if it is good condition and has been subject to appropriate cleaning and audit processes

See:

 The Personal Protective Equipment at Work Regulations 1992

[Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment](#)
Section 8, The Safe Person Principles, sub section 8.1, Page 27-28)

Control measure actions

Fire and rescue services should:

- Ensure that suitable arrangements are in place to demonstrate their consideration of compliance with 'The Personal Protective Equipment at Work Regulations 1992' and the 'Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment, June 2013'.
- Ensure that suitable arrangements are in place to support the replenishment of PPE.

Failing to leave the incident ground in a safe state

Hazard	Control measures
Failing to leave the incident ground in a safe state	Make an effective handover to the responsible person

Hazard 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. Failure to do so will leave the hazards on the incident ground unmanaged and unknown, resulting in the potential for accident and injury to others.

Control measure – Make an effective handover to the responsible person

Control measure knowledge

Competent management of the closure of the incident is just as important as the initial actions of an incident commander on arrival. This includes:

- Facilitating proper handovers as the incident reduces in size
- Continued vigilance regarding the hazards that continue to exist or newly emerge,
- Making appliances and crews available again at the earliest possible time
- Ensuring that site occupiers, neighbours and others who have been affected by the incident are kept appropriately informed

Control measure actions

National Operational Guidance: Incident Command (to follow)

The incident commander should:

- Consider how an incident will be handed over when closing the incident – those affected by an incident, such as people on site and neighbours, must be told about any hazards or emerging hazards
- Speak to the appropriate person, who will have ongoing responsibility for health and safety of the site, before closing an incident and removing all fire and rescue service resources. They should inform them that fire and rescue service operations have ceased and explain all the hazards that still exist on the site. This includes potential environmental hazards caused by fire and rescue service operations and security issues (this is particularly important when premises are left unsecured) – this only applies at incidents where hazards remain.
- Give advice on all hazards, risks and the control measures currently in place to manage these. They may advise on control measures that may need to be implemented. They should also communicate the timelines that need to be in place.
- Ensure that the responsible person understands the hazards and accepts responsibility

Fire and rescue services should:

- Consider the need to record the handover of responsibility. This may include the control of potential environmental hazards caused by fire and rescue service operations.
- Ensure security issues, particularly where premises are left vulnerable, are properly communicated to those accepting responsibility
- Consider a method of recording this handover, incorporating the logging of decisions made by the incident commander, responsible person's details and time and date of the handover. Whhere fire and rescue services have decision logging procedures already established this may be used in support of recording of the handover. See National Operational Guidance: Incident Command Fire Decision Model) (to follow) and Joint Doctrine: The Interoperability Framework, Part 2, Section 2, Joint Decision making Model
- Consider establishing measures to ensure health and safety arrangements are maintained where no responsible person has been identified for a site

Failing to identify and communicate learning opportunities

Hazard	Control measures
Failing to identify and communicate learning opportunities	Hold debriefing or post-incident reviews

Hazard knowledge

Effective communication is of critical importance at all stages of an incident. The incident commander must establish effective arrangements for communication. Information is one of the most important assets on the incident ground, gathered not just in support of the immediate operational management of the incident but also in support of debriefing and post-incident reviews. The needs of other agencies should be considered where appropriate in this process.

Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment Sections 7.3, 8.1 and 12)

Control measure - Carry out debriefing/post-incident reviews

Control measure knowledge

Debriefing, also referred to as post incident review, can be formal or informal. Debriefing can range from 'hot debriefs', which occur at the incident immediately prior to crews leaving, to large multi-agency debriefs or a public enquiry following major incidents. They are an important part of improving personal and organisational performance. They should take place whenever there is an opportunity to improve service delivery. Active monitoring during an incident can inform and support this process.

Debriefing forms an essential part of the management of health and safety on the incident ground. Debriefing will identify any significant information or lessons learnt, and whenever possible, the incident commander should debrief crews prior to leaving the incident. Equipment, PPE, systems of work and training can all be improved as part of this performance management system. HSG 65 – Successful Health and Safety Management gives further guidance on the principles of effective health and safety management in the workplace.

Fire and rescue services should have debriefing procedures in place that ensure:

- A facility exists to debrief all operational incidents
- The level of debrief is appropriate to the significance of the incident
- The debrief is structured, systematic and comprehensive
- All relevant personnel are represented at the debrief
- Significant findings are recorded and acted on
- Debriefs are conducted in a constructive environment tolerant of a level of individual failure – this ensures honest and open discussions, which allows important underlying issues to be identified

National Operational Guidance: Incident Command(to follow)

Joint Doctrine: The Interoperability Framework, Part 1, Annexe A, Page 6, Para 8, Joint Learning

Fire and Rescue Authorities, Health, safety and welfare framework for the operational environment Section 4,7.1, 7.2, 10.1, 10.2, 10.3 and 12)

Control measure actions

National Operational Guidance: Incident Command (Leadership) (to follow)

National Operational Guidance: Incident Command (Debriefing) (to follow)

The fire and rescue service should:

- Conduct a debrief to identify and record any 'lessons learned' from the incident. Debriefs will range in complexity and formality, proportionate to the scale of the incident and in line with individual fire and rescue service's procedures. The format chosen for the review should be appropriate to the nature of the incident attended and should be conducted in a

manner that promotes open, supportive and constructive discussion of all aspects of the incident

- Consider any changes required to safe systems of work, appliances or equipment following the identification of any lessons learned from debriefs or from safety events. If changes are agreed a communication strategy must be developed to ensure all affected personnel are informed.
- Highlight any unconventional system or procedures used that were successful or made the working environment safe. It is equally important to highlight all equipment, systems or procedures that did not work satisfactorily or made the working environment unsafe
- Any significant information gained or lessons learned relating to existing operational intelligence information should be fed back into the policy and procedures of the organisation. This includes personal protective equipment , the provision and use of communications, other systems of work, instruction, training, and levels of safety supervision
- Consider whether existing information held on a premises or location should be reviewed, or whether there is a need to add a new premises or location into future pre-planning, for example, by adding to a visit or an inspection programme
- Measure the performance of individuals against the standards relevant to the role of each individual if this is considered in the review, with effective performance and meritorious conduct being acknowledged where appropriate
- Record, investigate and report any safety events, personal injuries, exposure to hazardous substances or near-misses in line with legislative requirements such as Reporting of Injuries, Diseases and Dangerous Occurrence Regulations 1995, as updated in April 2012
- Record details of all 'near misses' – events that could have, but did not on this occasion result in personal injury or equipment damage. Experience has shown that there are a number of near misses prior to an accident occurring. If services fail to eradicate the causes of a near miss, they will inevitably fail to prevent injury or damage in the future. Appropriate information should then be fed back into the strategic decision making process via the Systematic Level (see reference to HSG 65 below) to:
- Review the performance of the organisation, team and individuals:
- Improve procedures and equipment
- Develop staff and training strategies
- For audit purposes
- Consider occupational health support and surveillance follow-up, as appropriate
- Consider arranging for personnel to make a contemporaneous written record of their actions. This information may be used to assist in any internal or external investigations or enquiries that follow any incident such as Coroner's Court or public enquiry

Glossary

Term	Acronym	Description
Analytical Risk Assessment	ARA	A more detailed risk assessment process than Dynamic Risk Assessment

Term	Acronym	Description
Appliance		Generic term for fire service emergency response vehicle other than a light goods vehicle
Automatic Vehicle Location System	AVL, AVLS	Technology which allows the location of a vehicle to be monitored remotely
Biological hazards		Biological hazards are hazards that involve living things, whether they come from people, animals, or plant.
Call Challenging		Further questioning a caller from call handling information received that may be ambiguous or misleading.
Call Filtering		Call assessing to establish if an attendance is required.
Call Handling Agency	CHA	Provides an emergency call service for communications providers (CP's) to all emergency authorities. In the UK BT acts as our CHA for all the networks.
Call Line Identification	CLI	Instantly gives the control room operator location information details which may be used as a guide to the potential location of an emergency.
Category 1 responder	Cat 1	Organisations at the core of the response to most emergencies (the emergency services, local authorities, NHS bodies). Category 1 responders are subject to the full set of civil protection duties
Category 2 responder	Cat 2	Organisations (the Health and Safety Executive, transport and utility companies) are 'co-operating bodies'. They are less likely to be involved in the heart of planning work, but will be heavily involved in incidents that affect their own sector. Category 2 responders have a lesser set of duties - co-operating and sharing relevant information with other Category 1 and 2 responders.
Chemical hazards		The term chemical hazard refers to liquids, gases or solids that can harm people, other living organisms, property, or the environment.
Communication Providers	CPs	A telephone service provider for either exchange lines or mobile phones

Term	Acronym	Description
Community Risk Register	CRR	Local Register/Assessment of the likelihood and potential impact of a range of different civil emergency risks (including naturally and accidently occurring hazards and malicious threats) that may directly affect the unique characteristics of each area.
Control Room Operator	CRO	Is experienced person who receives emergency calls, mobilises resources and actions incident command requests.
Defensive mode		Employed by incident command when the risks out weigh the benefit. No matter how many additional control measures are or could be adopted, the risk is too high. Therefore operations continue outside of an identified hazard area.
Direct Electronic Incident Transfer	DEIT	Information can be transferred electronically to various agencies instantaneously providing a clear understanding of assistance required.
Drive to Arrive		Technique of driving within safe limits whilst making maximum progress
Duplicate Call		More than one call received for an incident allowing the control room operator to record additional information on the incident log for attending resources.
Dynamic Risk Assessment	DRA	A risk assessment process that is used in a dynamic environment
Emergency Call Management	ECM	The ECM protocol offers a generic system for the successful management of emergency calls based on the principle that an emergency call can be dealt with within three distinct stages
Equipment or Tool Dump		An area created to store equipment or tools during an incident
Enhanced Information Service for Emergency Calls	EISEC	Instantly gives the control room operator location information details which may be used as a guide to the potential location of an emergency.
Fire Control Room		A mobilising centre for all emergency call handling management undertaken by the fire and rescue service.
Graphical Information System	GIS	A computer system designed to capture, store, manipulate, and analyse all types of geographical data.

Term	Acronym	Description
Hard Copy		Maintain a recording of information manually
Hazardous Materials	HAZMAT	Hazardous materials that can cause harm
Holding Area		Similar to Strategic Holding area but used for smaller incidents which do not merit a large scale response
Hot Debrief		A review of the actions and decisions made at an incident. Usually held prior to leaving the incident ground and involving only those in attendance at the time
Incident		Any event or occurrence which requires an emergency response
Incident Recording Systems	IRS	A national software system that is led by the Department for Communities and Local Government (DCLG) that enables the data on all incidents attended by the UK Fire and Rescue Service to be collected electronically, and will provide a nationwide standard of data collection
Information Management Systems		A system which provides information that organisations require to manage themselves efficiently and effectively
Integrated Risk Management Plan	IRMP	The planning process and subsequent plan for a fire and rescue authority to demonstrate how its strategic direction meets the needs of the community
Interoperability		The joint working of emergency services, especially during a major or complex incident.
Intra-operability		The joint working of fire and rescue services, through combined use of resources and assets, sometimes within a cross-border situation. This can also mean the combined involvement of a fire and rescue service with National Resilience assets.
Local Resilience Forum	LRF	A requirement under the Civil Contingencies Act 2004: A forum or Multi-agency partnership formed within an individual Police Service boundary consisting of both Category 1 and 2 responders. The LRF aims are to plan and prepare for localised incidents and catastrophic emergencies. They work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities.

Term	Acronym	Description
Manual Handling		Manual handling covers a wide variety of activities including lifting, lowering, pushing, pulling and carrying. If any of these tasks are not carried out appropriately there is a threat of injury.
Make Up		Phase of an incident where all equipment is replaced on the appliance and the appliance is prepared for deployment to another incident
Mobile Data Terminal	MDT	Provide mobile computer access to information, usually in the form of a rugged laptop
Mobilisation		Actions that contribute to informing a fire and rescue service asset that it is required to proceed to an incident and the process of that asset proceeding to the incident
Multi Agency Incident Transfer	MAIT	Information can be transferred electronically to various agencies instantaneously providing a clear understanding of assistance required.
National Occupational Standards	NOS	National Occupational Standards (NOS) are statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding.
Personal Protective Equipment	PPE	Personal protective equipment includes items such as fire tunics, over-trousers, helmets, fire hoods, gloves and boots. Specialist personal protective equipment may be used for certain types of incident.
Physical hazards		Physical hazards occur when objects such as equipment and tools, or areas of the working environment come into contact or have an effect on a person, resulting with the potential to cause actual physical injury
Pre-determined Attendance	PDA	Information display format on the mobilising system showing the correct resource type which may be dispatched to an incident or location.
Premise based gazetteer		A data base within a mobilising system that displays address information when imputing emergency call handling information.

Term	Acronym	Description
Prompt Call Information		Information on various call type scenario's to support control room operators when giving advice to a caller. These can also aid resources when proceeding and in attendance at incidents.
Protective Marking Framework		The Government's administrative system to ensure that access to information and other assets is correctly managed and safeguarded to an agreed and proportionate level throughout their lifecycle, including creation, storage, transmission and destruction. The system is designed to support HMG business, and meet the requirements of relevant legislation, international standards and international agreements.
Psychological hazards		Relating to, or arising from the mind or emotions. Influencing or intended to influence the mind or emotions.
Public Emergency Call Services	PECS	Written code of practice between communications providers (CP's), call handling agencies and the emergency authorities
Responsible Person		The Fire Safety Order details the duties of a Responsible Person for carrying out a fire risk assessment and ensuring the building is suitably safe for all relevant persons
Retained Duty System	RDS	The employment of personnel on an 'on call' only basis
Risk Information		Information which relates to specific premises or groups of premises which enhances the safety of crews attending an incident.
Road Traffic Collision	RTC	The law defines a reportable road traffic collision as an accident involving a mechanically-propelled vehicle on a road or other public area
Safe Person concept		The combination of training, PPE and work systems which contribute to working safely
Safety Officer		Safety officers are appointed by the incident commander prior to commencement of operations. They will be located at point which provide them with overall view and control of the inner cordon and scene of operations.
Salutations		Correct acknowledgment to support a caller through emergency call management.

Term	Acronym	Description
Sector		A designated area within the area of operations at an incident.
Site Specific Risk Information	SSRI	Risk information is captured by each fire and rescue service to identify, through a continuous process, new risk information and the updating of existing information to support the operational effectiveness of the fire and rescue service, ensure the safety of the public and the protection of its firefighters
Situational awareness		The perception and understanding of a situation and the anticipation of how the situation may develop in the near future
Spate		A period of high numbers of calls to different but usually related incidents
Spans of Control		Collation of information being received and actioned in a safe working environment.
Spike		Localised influx of emergency calls with no given warning
Standby		A replacement resource or equipment available to use to maintain fire ground cover or fire control room operations.
Stand-Down procedures		Method for ensuring appliances can be released from a call before arrival at the incident
Subject Matter Expert	SME	An individual who exhibits the highest level of expertise in performing a specialized job, task, or skill within the organisation.
Turnout System		System for making firefighters aware that they are required to attend an incident
Welfare		Welfare is the provision of well-being and social support facilities
Zoonosis		An infection transmissible between vertebrate animal hosts and humans.

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