Department for Communities and Local Government

Fire and Rescue Authorities

Health, safety and welfare framework for the operational environment

Withdrawn

June 2013
Department for Communities and Local Government

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SECTION 1

Foreword

This Framework document will assist Fire and Rescue Authorities in balancing risks, specifically in their wider role to protect the public and property, while meeting their health and safety at work duties to protect their staff and others.

It is widely accepted and recognised that firefighters and their operational managers often face difficult moral dilemmas and have to make decisions in what are sometimes extremely hazardous, emotionally charged and fast moving situations. In support of Fire and Rescue Services the Health and Safety Executive in 2010, launched the statement: *Striking the balance between operational and health and safety duties in the Fire and Rescue Service*.

This Framework focuses on the operational and training environments that are unique to firefighters, and does not replace or replicate other health and safety guidance that applies to more routine activities.

Within this Framework there are examples and extracts taken from various Fire and Rescue Authorities. They are not intended to be used to prescribe the approach that individual Fire and Rescue Authorities adopt.

This Framework is supported through full involvement of the Health and Safety Executive, Fire Brigade Union, health and safety professionals from Fire and Rescue Authorities and also the Chief Fire Officers Association.

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SECTION 2

Purpose of the Framework

This is strategic level guidance for Fire and Rescue Authorities for planning health and safety in the operational environment. It will assist Authorities fulfil their health and safety duties.

This Framework is based on the systematic POPIMAR (Policy, Organisation, Planning and Implementation, Measuring, Auditing and Review) model for managing health and safety – a model which is described within Health and Safety Executive guidance document, *Successful Health and Safety Management, HSG 65* 1997.

This Framework is centred on the planning and delivery of safe systems of work based on the safe person principles. Welfare and wellbeing issues are included in Section 13 to emphasise the importance of ensuring adequate welfare provision at incidents.

The publication of the Framework supersedes a number of existing health and safety guidance documents that have now been withdrawn. These are:

Volume 1 A guide for Senior Officers

Volume 2 A guide for Managers Modules 1-17

Volume 2 A guide for Managers Module 18 Health and Safety Audit

Dynamic management of risk at operational incidents – a fire service guide.

It is important that health, safety and welfare issues are not seen as stand-alone. They need to be integrated into existing Fire and Rescue Authority management systems and support overall integrated risk management planning.

This Framework provides direction for Fire and Rescue Authorities in England on the relationship with the discharge of their functions and the priorities and objectives set out in the *Fire and Rescue National Framework for England*.

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SECTION 3

Status of the Framework

This Framework has been prepared as guidance for Fire and Rescue Authorities and chief fire officers/chief executives. It is intended for use as a practical guide to the considerations they should make in planning the delivery of their health and safety duties and responsibilities. In many areas, the Framework sets a benchmark in the form of good practice against which Fire and Rescue Authorities can measure their existing systems and arrangements.

This Framework has been developed with the support of the:

- Chief Fire and Rescue Adviser
- Health and Safety Executive
- Fire Brigades Union
- Chief Fire Officers' Association
- Devolved administrations.

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Health and Safety Executive inspectors may reference the guidance when inspecting a Fire and Rescue Authority's arrangements for managing health, safety and welfare. Trade union safety representatives may also use this Framework when inspecting workplaces and independent auditors may refer to the guidance as an illustration of good practice.

This guidance will assist Fire and Rescue Authorities in integrating established day-to-day safety management arrangements for controlling risk in the workplace with the challenging nature of managing activities in the extremely dangerous environments in which personnel have to work when dealing with operational incidents.

An integrated safety management system will lead to less duplication of effort and to the development of a consistent approach that takes into account the needs of all management functions within a Fire and Rescue Authority. This will allow the sharing of knowledge, skills and experience, resulting in the co-ordination of areas of management such as:

- organisational structures
- strategic decisions
- human resources
- resource allocation
- finance

- work planning
- strategies, policies and procedures
- training requirements.

An integrated safety management system will support the safe person principles that describe how a Fire and Rescue Authority can secure firefighter safety in the operational environment.

This guidance document includes a number of commonly used and recognised management methodologies. It specifically sets out guidance on managing health, safety and welfare at operational incidents in a local authority Fire and Rescue Authority.

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SECTION 4

Introduction

The *Health and Safety at Work etc Act 1974* applies to all activities of Fire and Rescue Authorities as the employers of fire and rescue personnel. The Act requires employers to ensure the health, safety and welfare at work of their employees and that their activities do not adversely affect the health and safety of other people.

These health and safety duties are not absolute and are qualified by the test of what is reasonably practicable. The Act, therefore, does not require all risks to be eliminated, and the Health and Safety Executive recognises that, even when all reasonably practicable precautions have been taken to deal with foreseeable risks, harm could still occur.

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

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4.1 Guiding principles

The guiding principles of health, safety and welfare in the Fire and Rescue Authority include:

- Clear and positive safety leadership at Fire and Rescue Authority and principal officer level
- Fire and Rescue Authority and principal officer level visibility and promotion of safety leadership in order to set a positive safety culture throughout the Authority, with at least one named officer taking lead responsibility for the safety management process at an organisational level
- Recognition that management is accountable and has constant active engagement in the Authority's operations, accepting prime responsibility for accident and ill health prevention, including monitoring of employee health
- Recognition that employee workplace health and safety representatives operating in partnership with management are an important part of realising health, safety and welfare benefits
- Engagement of the workforce, encouraging and establishing upward and downward communication systems and appropriate management structures in the promotion and achievement of a good health and safety culture

- The personal responsibilities of individuals are clear and health, safety and welfare is embedded into all activities and not seen as separate
- The scrutiny of the health, safety and welfare management system must be an identified function of the fire authority as the primary employer
- Well-established management and incident command arrangements are in place for controlling the operational risks to firefighters
- Appropriate resources are made available to ensure a high standard of safety management, incident command and the integration of good health, safety and welfare management within operational and business decisions
- Provision of high quality training to ensure all personnel are competent to perform their roles and to make appropriate operational decisions
- Monitoring safety performance and incident command based on both leading and lagging indicators is central to ensuring the operational risks are being effectively managed (see Section 10)
- Ensuring internal standards and safe operational procedures aim to optimise the balance between risks and benefits – which does not mean avoiding risks but managing them responsibly on the basis of likelihood and severity.

Sharing best practice across Fire and Rescue Authorities and other agencies enables lessons to be learnt from safety events both regionally and nationally and provides effective resilience at incidents, including those involving cross-border co-operation and support.

4.2 Operational health, safety and welfare

Based on the principles of POPIMAR, this Framework considers the integration of all Fire and Rescue Authority health, safety and welfare arrangements. It includes arrangements for ensuring firefighter safety immediately before, during and after attendance at an operational incident.

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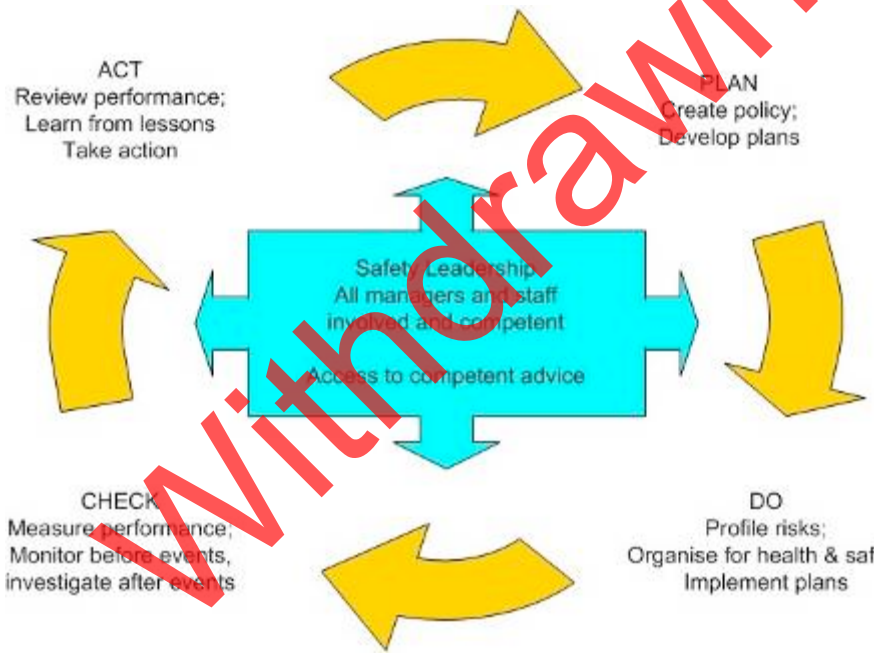
In planning, organising and preparing for the safe resolution of incidents, a Fire and Rescue Authority must comply with legal requirements to ensure the health, safety and welfare of their employees and the health and safety of others whilst ensuring an effective emergency service.

Plan-Do-Check-Act

Many health and safety management systems use an approach based on the Plan-Do-Check-Act cycle for continual improvement. This simplified approach is recognised as one that is accessible to businesses in general. It is also accepted and recognised that the POPIMAR model remains valid, especially for larger and more complex organisations such as Fire and Rescue Authorities.

Panel 1 outlines how both models relate and link to each other.

PANEL 1



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4.3 The Health and Safety Executive

The Health and Safety Executive is the enforcing authority for health and safety for Fire and Rescue Authority activities. Under this authority, the Health and Safety Executive has a remit to carry out inspection, investigation and enforcement, as well as to provide advice and guidance to all Fire and Rescue Authorities.

4.4 Striking the balance

The Health and Safety Executive has produced a statement that should assist Fire and Rescue Authorities in balancing the risks, particularly in their wider role to protect the public and property, while meeting their health and safety at work duties to protect their personnel and others. The statement can be found at:

http://www.hse.gov.uk/services/fire/duties.pdf

4.5 Acts of individual heroism

The Health and Safety Executive also published a guidance document outlining their definition of and how they respond to acts of heroism. *Heroism in the Fire and Rescue Service* is available at:

www.hse.gov.uk/services/fire/heroism.htm

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SECTION 5

Formulating health and safety policy for the operational environment

The Fire and Rescue Authority's health and safety policy must include adequate arrangements for the control of the health, safety and welfare risks arising from their operational activities.

The policy should outline the systematic, proactive and reactive approach the Fire and Rescue Authority is going to take to manage hazards and risks.

5.1 Overarching health and safety policy

The overarching policy and other specific policies should cross-reference to appropriate Fire and Rescue Authority procedures. These policies should be concise and provide clarity.

There are nine key elements of a health, safety and welfare policy:

1 The organisation's responsibilities

The general statement of intent of the Fire and Rescue Authority/chief fire officer/chief executive should state commitment to the wider vision. This should be signed, dated and reviewed/revised as necessary at regular intervals.

The overarching health, safety and welfare policy of the Fire and Rescue Authority can specify responsibilities within the Authority from the chief fire officer/chief executive to the firefighter, detailing key job titles to address who does what, when and how they do it. This includes training and specialist advisers (eg health, safety and welfare).

2 Arrangements for consulting with employees

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

3 Arrangements for procuring and maintaining operational equipment/plant

Fire and Rescue Authorities should ensure that there are adequate and appropriate arrangements in place to ensure that all plant and equipment requiring maintenance is identified and that suitable maintenance programmes are undertaken. This will

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include appropriate procedures for identifying the requirement for new or replacement equipment and that it is fit for purpose and matches the requirements of the Fire and Rescue Authority's integrated risk-management plan.

4 Arrangements for identifying, interpreting and reviewing (new and existing) guidance/information

Fire and Rescue Authorities should ensure adequate systems and processes are in place to identify the implications of national guidance, such as Fire Service circulars, Fire Service bulletins, hazard and risk statements, technical bulletins, *Dear Chief Officer* letters, as well as health, safety and welfare legislation. Individuals with the relevant competence should review existing guidance (procedures, safe systems of work etc).

5 Arrangements for developing/reviewing instructions/procedures etc and communicating/providing information to relevant personnel

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

Information must be disseminated to all personnel on the hazards, risks and control measures associated with their work.

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6 Arrangements for reporting, recording and investigating accidents and near misses

There should be a system in place to investigate accidents and incidents to identify immediate and underlying causes and suitable arrangements for preventing recurrence and addressing learning outcomes should be implemented. These systems will enable Fire and Rescue Authorities to analyse and identify trends and issues.

7 Arrangements for reviewing resources for health, safety and welfare

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

8 Arrangements for monitoring and measuring performance

Fire and Rescue Authorities need to be able to show that they are monitoring and measuring performance against pre-determined plans and standards.

9 Arrangements to address health safety and welfare including occupational health issues

Fire and Rescue Authorities must ensure they have adequate arrangements in place for the health and welfare of employees.

5.2 Specific policies

Specific policies for operational activities should have the important principles of health, safety and welfare enshrined within them. An example of what a specific policy should contain can be found at Appendix 1.

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SECTION 6

Organising for the safe delivery of operational activities

Fire and Rescue Authorities must have an effective management structure and arrangements in place for delivering safe operational activities. This includes:

1. **Establishing and maintaining management control.**

Establishing and maintaining control is central to all management functions. Control in explicit terms means commanding and directing. It should feature as a main element of the overarching health, safety and welfare policy and individual policies.

2. **Promoting co-operation between individuals, safety representatives and staff groups so that health, safety and welfare become a collaborative effort.**

The health and safety committee's role should include, as part of their normal agenda, planning and preparation for health safety and welfare issues that arise from a Fire and Rescue Authority's operational activities.

3. **Ensuring the communication of safety critical information and other health, safety and welfare information throughout the organisation.**

Fire and Rescue Authorities must ensure information about hazards and risks to safety and the preventative measures and safe systems of work are provided in an appropriate and timely manner to relevant personnel.

Fire and Rescue Authorities should ensure there are formal and informal means in place to guarantee an adequate flow of information up, down and across the Authority and any new information coming into the Authority is shared across the organisation.

4. **Ensuring the competence of operational personnel.**

One of the biggest operational safety challenges Fire and Rescue Authorities face is that of maintaining a competent workforce.

For Fire and Rescue Authorities, occupational competence is defined as the ability to consistently achieve the stated outcome of workplace performance as described by an individual's role within the appropriate nationally agreed standards.

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Competence systems should not only focus on the operational firefighters, supervisors, managers and commanders who, no matter what their role, attend incidents. It should also take account of the competence of those who are called upon to prepare operational guidance and risk information, undertake risk assessments, train and assess firefighters in their operational skills and support incident commanders with post incident/event investigation and reporting.
The need to maintain competence applies equally to fire control personnel that receive calls, analyse and manage the first stage of incident intelligence and mobilise operational crews to incidents.

To achieve competence a suitable and comprehensive policy will be required, backed up with procedure, the aim being to provide: clarity, structure, confidence and transparency in the process, not to create volumes of paperwork.

Based on accurate role, risk and hazard profiling, Fire and Rescue Authorities need to map the areas where competence is required.

They should determine the relevant benchmark standards that define what competence is (eg through personal expertise/learning, national occupational standards, role maps, industry guidance etc).

They should set up and deliver an assessment/assurance/verification/monitoring framework that will give the competence system the impartiality, consistency, robustness and audit ability it needs.

All of this will require:

- suitably qualified personnel
- robust training needs analysis
- a suitable record keeping system.

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6.1 What competence looks like in practice

At a strategic level the organisation should have a clear understanding of the risks faced in carrying out its responsibilities (including to its workforce) and its aspirations in terms of reducing the impact of emergencies on communities and personnel.

This means:

- Clearly defining the scope of Fire and Rescue Authority's activities, the expected outcomes of the integrated risk management plan, and the risks faced by its workforce in undertaking their roles and responsibilities

- Setting out the tactical plans needed to deliver the expected outcomes. These should be balanced against the outcomes achievable with the resources available
- Determining the relevant standards that define what competence looks like (eg through own expertise/learning, national occupational standard, role maps, industry guidance etc)
- Setting out clear procedures of how competence will be achieved (ie acquisition of skills and knowledge; consolidation and then deepening of job related expertise; maintenance of competence), by whom, how and when
- Matching tasks to the appropriate national occupational standards/role maps
- Training those people to appropriate standards relevant to their role
- Providing competent and proportionate assessment and appraisal of skills and knowledge, reflecting the potential outcome of their exposure to risk through undertaking work activities.

In an operational context, the competency system should include the use of a training needs analysis to ascertain which operational personnel need training and when.

The training needs analysis includes:

- identifying where operational personnel have not used their skills during a set period and need to be refreshed or re-tested
- the ease with which the Fire and Rescue Authority can confirm that full time and retained/on-call personnel required to carry out the same duties have each received training
- the ways in which the Fire and Rescue Authority deals with personnel who have failed to demonstrate competence.

6.2 Command competence and workplace assessment

In the high-risk environment of incident command, control and supervision, it is essential for Fire and Rescue Authorities to be able to identify those individuals in need of additional support and development at an early stage. Whilst simulation will provide valuable evidence of potential performance and application in the workplace, Fire and Rescue Authorities may choose to use workplace assessment at incidents to establish further evidence of application, as well as maintenance of individual competence.

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

The effectiveness of workplace assessment strongly depends on the competence of the assessors and, as with any potential learning experience, it should be routine that a debriefing takes place as soon as possible after the assessment. To this end Fire and Rescue Authorities should ensure workplace assessment provides objective, constructive feedback immediately after the activity and that a suitable record is maintained.

This is particularly important where there is evidence of under-performance or under-achievement in safety critical areas. Arrangements should be in place to remove individuals from their operational role until a suitable demonstration of underpinning skill, and knowledge has been obtained.

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SECTION 7

Planning and implementing operational policy

Planning is essential in achieving the successful delivery of a Fire Authority's health, safety and welfare policy, management systems, safe systems of work and standard operational procedures for emergency response. Planning contributes to a positive safety culture by setting clear objectives, identifying hazards, assessing risks, and implementing performance standards.

7.1 Integrated risk management plan

Integrated risk management planning plays a key role in identifying, assessing and mitigating fire and rescue related risks both to communities and to employees. Fire and Rescue Authorities must produce an integrated 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 and/or national nature. The plan must have regard to the Community Risk Registers produced by Local Resilience Forums and any other local risk analysis as appropriate.

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Operational co-operation

Within their integrated risk-management planning arrangements, Fire and Rescue Authorities must engage proactively both internally and externally to develop protocols and standards for any reasonably foreseeable incidents. They must work with partner organisations and agencies to develop clearly defined health safety and welfare policies and procedures for 'cross-border' joint working.

Three levels of effective planning

To be effective and integrate the culture of successful health, safety and welfare management, planning should be proactive and set out to identify, eliminate and control hazards and risks. In a Fire and Rescue Authority, this takes place at three levels:

1. Strategic

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

2. Systematic

Where a Fire and Rescue Authority plans the delivery of strategies to minimise hazards and risks to employees, to deliver a positive safety culture. This planning ensures that managers assess the level of risk and apply the necessary controls in the operational environment.

3. Dynamic/incident

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

Planning and implementing any health, safety and welfare management system involves operating, maintaining and improving the system to suit changes in circumstances or the introduction of new hazards and risks.

Planning for incident safety

The three levels of effective planning set out above (strategic, systematic and dynamic/incident) provide the basis for organisational health, safety and welfare. However, in an operational context they are only the foundation. Upon that foundation are built four pillars of operational risk assessment that, in turn, support the ‘safe person’, see Section 8.

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7.2 The four pillars of operational risk assessment

PILLAR ONE

Generic hazard and risk statements

Nationally produced guidance is where the Fire and Rescue Authority shares the experiences gained at operational incidents. They provide generic hazard and risk statements and information to support the development of individual Fire and Rescue Authority’s incident specific risk assessments.

PILLAR TWO

Strategic risk assessment

Generic hazard and risk statements cannot be applied directly to the activities of an individual Fire and Rescue Authority. By definition they are ‘generic’. In themselves, they do not satisfy the Fire and Rescue Authority’s duty for conducting a suitable and sufficient assessment of foreseeable risk within their authority area.
The emergency response priorities of individual Fire and Rescue Authorities will differ.

A strategic risk assessment will identify the control measures required to eliminate or reduce risk. These controls may include the provision of:

- structured training
- suitable appliances, personnel and equipment to respond to incidents
- accurate, easy to interpret and accessible operational risk information
- any necessary personal protective equipment, including respiratory protective equipment, for all foreseeable response activities
- detailed procedural guidance on how to establish a safe system of work.

The last of these may be known by different terms locally. In this document, the term ‘standard operational procedure’ is used.
A standard operational procedure provides a framework of how to manage an incident safely while achieving the expected outcomes set by the Fire and Rescue Authority. They should provide the information and detailed guidance necessary to assist incident commanders in dealing with the incident and to effectively control risk to fire and rescue personnel, partner agencies and members of the public.

During the planning phase and the development of standard operational procedures, intra-operability with neighbouring Fire and Rescue Authorities must be considered and addressed.

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Planning for operational response

A Fire and Rescue Authority must base its operational response on the requirements outlined in the Fire and Rescue National Framework for England.

Risk critical information

Fire and Rescue Authorities have a duty to obtain information for extinguishing fires and protecting life and property in the event of a fire occurring and for dealing with road accidents and other emergencies.

The provision of risk-critical information on the fire ground is an essential part of the planning process for ensuring the safe operations of effective Fire and Rescue Authorities.

Site-specific plans should include levels of response, relevant standard operational procedures for specific aspects of the risk, tactical considerations, including rendezvous points, appliance marshalling areas, achievable outcomes and access points, as well as site specific hazards and identification and, where necessary, the formal notification to person(s) responsible for the site of any Fire and Rescue Authority’s operational limitations.

Fire and Rescue Authorities should ensure:

- robust systems are in place to capture and maintain site-specific risk critical information
- risk-critical information provided for use by an incident commander is accurate, immediately available, in an easy to use format and applicable to the incident they are dealing with.

Further guidance is available in *Fire and Rescue Operational Guidance: Operational Risk Information* (published March 2012):

https://www.gov.uk/government/publications/operational-guidance-for-the-fire-and-rescue-authorities-operational-risk

PILLAR THREE

Dynamic/incident risk assessment

Incident risk assessment is the process by which, as the nominated competent person, an incident commander will identify the hazards and risks faced by those in attendance.

Unlike the strategic risk assessment process, this is a dynamic environment, where decisions are sometimes made in fast-moving situations, with incomplete or inaccurate information. Incident risk assessment takes into account information from:

- site-specific premises risk information
- standard operational procedures
- observation of incident circumstances
- eye witnesses at the time of the incident.

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At an operational incident the overriding priority of the Incident Commander is the safety of everyone that may be affected by Fire and Rescue Authority operations. A safe working environment should be established as soon as is practicable by selecting the most appropriate control measures given the demands of the incident and taking into account an assessment of the risks and benefits to be gained and any time constraints.

The selected safe systems of work should be implemented, developed maintained and reviewed, throughout the life of any incident.

There are a number of risk assessment methods that can be used in the initial and subsequent incident risk assessment process. An example of a dynamic risk

assessment method can be found at Appendix 2 and an example of a dynamic risk assessment flow chart can be found in Appendix 3.

PILLAR FOUR

Individual risk assessment

In most cases, operational incidents are dealt with by firefighters working alongside and under the direct supervision of their line managers. However, there are circumstances when they are required to work remotely and make decisions for themselves, when incident risk assessment will only have been able to take account of what is reasonable to expect, foresee or know about incident hazards and risks.

Therefore, there is another layer of risk assessment, one designed to inform personal safety in circumstances where unsupervised firefighters may encounter an unexpected or unforeseen situation. Individual risk assessment describes the process of identifying hazards and assessing risk in order to inform and influence the risk taking behaviour and actions of firefighters when they encounter these circumstances. An example of an individual risk assessment model can be found at Appendix 4.

7.3 Operational decision making

In normal circumstances, Fire and Rescue Authorities' standard operational procedures can be seen as a guide providing a framework of good practice to support common ways of working and to assist an Incident Commander to resolve operational incidents safely and effectively.

Standard operational procedures need to be sufficiently flexible to allow the Incident Commander to exercise discretion on the resources and the procedures required to resolve the emergency.

For example:

- life rescue in circumstances where the complete implementation of a procedure would lead to an unjustifiable delay in action, resulting in the potential for greater injury or loss of life
- tackling a fire through rapid and decisive intervention, to reduce the risk of fire spread that may otherwise cause a delay, creating the potential to present a greater risk to operational personnel or the public.

The decision to exercise operational discretion is not an easy decision to take. It should be based on a balance in terms of risk versus benefit, and the Incident Commander knowing the actions which are normally required by the relevant standard operational procedure.

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Incident Commanders need to continually assess the benefits of their actions against the risk to operational personnel.

The Fire and Rescue Authority will need to assess the effectiveness of decisions taken on the fire ground to ensure continuous improvements in their management of health and safety. An effective operational debriefing process will assist in meeting this need.

Communication

Communication at incidents is an important non-technical skill that can be learned, developed, improved, and shaped by training. Effective communication is paramount in maintaining a shared understanding of the situation being faced. How teams are briefed prior to high-risk tasks, what teams/individuals understand of the risk they face requires clear communication. It is through the process of effective task briefing that supervisors and Incident Commanders at operational incidents are able to establish effective control.

Following the initial incident assessment, crews should be briefed about the tasks to be undertaken and the associated hazards. The extent of the briefing will depend largely on the nature of the incident.

Feedback is an important factor in incident safety. It closes the communication loop and is the simplest way of preventing any misunderstanding in the receiver's interpretation of the original meaning of a message.

Fire and Rescue Authorities need to ensure that their incident briefing model involves:

- the provision of detailed guidance on the agreed safe system of work
- their incident commanders giving clear and effective instructions in the risk critical environment of operational incidents
- an appropriate two-way process involving feedback and confirmation of understanding (transmissions are received and understood)
- the provision and maintenance of suitable communications equipment.

By doing so, it will be supporting several key elements of the 'safe person' principle to ensure safe and effective operations at incidents.

Fire and Rescue Authorities should also secure arrangements for ensuring non-fire and rescue personnel understand these hazards and the control measures they should observe. This can be done in a number of ways including the use of effective cordons and logging people in and out of the affected areas.

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Recording the incident risk assessment

There is a need for Fire and Rescue Authorities to record the significant findings of a risk assessment of the hazards that their personnel, members of partner emergency services and agencies; and members of the public are exposed to during an incident.

Generic hazard and risk statements, standard operational procedures and site-specific information will have identified most of these hazards and any necessary controls but cannot take account of the unique circumstances encountered at a specific operational incident. In these circumstances a Fire and Rescue Authority can satisfy the requirement for recording the significant findings in a number of ways.

FOR EXAMPLE:

ELECTRONICALLY
By declaring and recording a TACTICAL MODE following the Incident Commander's initial and subsequent incident risk assessments. Further information and guidance on the incident TACTICAL MODE can be found in the *Fire Service Operations, Incident Command Manual*.

By sending an informative message that describes the nature of an incident, principal hazards, and resources being deployed, to reduce the impact and mitigate the risks arising from these hazards.

IN WRITING
Many incidents attended by a Fire and Rescue Authority are dealt with using limited resources. In many cases, especially where the incidents are quickly brought under control and concluded, electronic recording may be sufficient on its own. However, sometimes more control is required which may involve extensive resourcing by a Fire and Rescue Authority, including fire appliances, equipment and personnel. These incidents often require the support of partner services and agencies. In turn, this may require a more detailed and written record of the significant findings of risk assessment.

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These can relate to activities at several locations throughout an incident ground but may relate to elaborate measures at smaller incidents as well. The generic Fire and Rescue Authority term for this written record is an analytical risk assessment on which detailed guidance is provided in the *Incident Command Manual*.

In all cases, Fire and Rescue Authorities should ensure arrangements are in place to communicate the significant findings of incident risk assessment to all personnel at an operational incident. They should be made aware of the hazards, risks and control measures necessary to secure their safety.

Records of incident risk assessments provide a valuable source of information for post incident review, organisational and personal training and development. Fire and Rescue Authorities should have suitable arrangements in place to provide incident risk assessment records to supervisors and managers responsible for incident debriefing and personal development.

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SECTION 8

The safe person principles

This framework explains that successful health and safety management starts with the creation of effective health and safety policies and management structures that set a clear direction for Fire and Rescue Authorities to follow. However, it has long been recognised that whilst some operational risk can be reduced through prevention and protection policies, the operational environment remains an inherently dangerous place, one where it is not possible to establish controls over all hazards, where firefighters, their supervisors and commanders continue to encounter the highest levels of risk.

Although Fire and Rescue Authorities cannot actually create safer operational environments, it is in the principles adopted in planning to deal with health, safety and welfare that they are able to focus on those aspects of safe and effective operations that support and establish safe people. These safe person principles start with those measures a Fire and Rescue Authority should implement when planning their integrated risk-management strategies. However, these fundamental principles of effective health, safety and welfare management can only secure safe and effective operations when in turn they are supported by a number of key elements that an individual should possess if they are to be a safe person.

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8.1 The safe person organisational responsibilities

The safe person principles that establish the foundation for effective health, safety and welfare management in the operational environment require Fire and Rescue Authorities to plan for and implement suitable arrangements for:

- The assessment and selection of people with the appropriate skills, abilities and attributes for development as firefighters, who are capable of making safe judgements in an emergency situation; who are aware of their role in an incident command system, their own safety and the safety of others, and who can accept and safely implement the instructions of their supervisors, managers and commanders
- The assessment and selection of people with the appropriate skills, abilities and attributes for development as supervisors, managers and commanders who will exercise professional judgements at incidents that minimise, and where possible, eliminate the risk of harm to operational personnel; and who can give clear and effective instructions in the risk critical environment of operational incidents
- The provision of structured training to establish and maintain the skill, knowledge and competence of firefighters, their supervisors, managers and

commanders in those technical and operational matters necessary to maintain safe and effective operations at incidents

- The establishment of suitable arrangements for the maintenance and recording of the incident command skill and competence of supervisors, managers, and commanders
- Ensuring safe and effective operations by the provision of detailed guidance on how to establish a safe system of work to deal with the range of operational incidents a Fire and Rescue Authority will be called upon to attend
- The provision, maintenance and response of suitable appliances and equipment necessary to deal with the range of operational incidents a Fire and Rescue Authority will be called upon to attend
- The provision and maintenance of any necessary personal protective equipment, including respiratory protective equipment, to ensure the safety of operational personnel when responding to, and in attendance at, the operational incidents a Fire and Rescue Authority will be called upon to attend
- Identifying, gathering, analysing, and providing operational risk information; and suitable arrangements for its review. These arrangements should ensure any site-specific information is accurate, easy to interpret and accessible to Incident Commanders when responding to and in attendance at the operational incidents they will be called upon to attend
- The provision of suitable welfare arrangements for rest, recovery and replacement of personnel during operational incidents. In the case of protracted incidents, this should include suitable arrangements for refreshment and re-hydration and take account of the weather. Fire and Rescue Authority welfare arrangements should also include post-event support for those personnel exposed to an event or occurrence which has the potential to cause anxiety and stress or some similar emotional response; and
- Learning from post-event analysis, incident debrief and review, including a process for recording and managing information gained and any subsequent developments or changes to safe systems of work.

Withdrawn

8.2 The safe person individual responsibilities

Safe and effective operations are not just delivered through the provision of procedures, equipment, training, protective clothing, risk information, post event learning audit and review. They also rely on the people who attend operational incidents to be responsible for their own safety. Not only should they work as an effective member of a team within safe systems of work they should also be competent and knowledgeable about hazard and risk. They should have the

personal skills and attributes necessary to remain safe, even in an environment where there may be limited controls over hazards and risks.

There are five **key elements** to being a safe person in the operational environment that can reduce the risk of error and injury. Some of these are built on behaviours that are developed with experience, whilst others are important non-technical skills that can be acquired through training and development.

1. COMPETENCY

A ‘safe person’ is competent to perform the tasks assigned when at an incident and self-disciplined to work sensibly and responsibly within the command and control arrangements established by the Incident Commander and his/her appointed team leaders and supervisors.

2. SELF AWARENESS

When tasks are assigned, a ‘safe person’ is able to recognise their physical limitations to perform a task and their personal limitations in knowledge and experience and to ensure that they have the necessary information to perform safely and effectively.

3. BEING OBSERVANT AND CONSTANTLY AWARE OF THEIR SITUATION

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.

4. DECISIVE ABOUT HAZARD AND RISK

A ‘safe person’ understands when and how to communicate safety critical information to supervisors and commanders, offer alternative courses of action or, in the absence of guidance, mitigate risk by taking action to reduce personal and team exposure to risk. A ‘safe person’ will recognise their limitations and when they need help to mitigate risk.

5. COMMUNICATION

A ‘safe person’ is able to communicate unexpected developments in the operational environment and support other team members, supervisors and commanders in achieving the safe resolution of an incident. This means they are able to recognise hazards and when to communicate knowledge of risk to their supervisors and commanders. A ‘safe person’ is aware of their role in the command and control

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arrangements of an incident and will provide relevant and timely information about unknown or unexpected developments.

Appendix 5 gives an example of how these principles are linked.

8.3 Leadership and supervision

Everyone on the incident ground has a responsibility for their own safety and the safety of those around them. This individual duty requires firefighters to take reasonable care of themselves and in any situation where they are aware of circumstances that can compromise safety they have a duty to intervene to prevent harm occurring. They should act sensibly and responsibly within the command and control arrangements of a Fire and Rescue Authority and not act recklessly or endanger others.

It is important that command and control discipline is maintained to ensure the safety of operational personnel and others. As detailed in the *Fire Service Manual, Volume 2, Incident Command*, an Incident Commander will on many occasions delegate responsibility for managing health, safety and welfare at various locations of an incident to a Sector Commander. At large incidents there will be many supervisors who do not have a nominated responsibility within an overall incident command system. However, this makes them no less responsible for the maintenance of command and control at incidents and the safety of others.

Operational incident command represents an area where leadership has a risk critical and central role. The clearest example of the area where strong leadership is required is in the application of risk assessment at incidents, particularly when exercising the most critical decisions affecting firefighter safety; those where firefighters are being called upon to **“to save saveable lives”.**

Withdrawn

HSG65 'Levels of Supervision'

Levels of supervision

Withdrawn

SECTION 9

Human factors

In recent years, analysis has identified that up to 80 per cent of industrial accidents can be attributed to human actions or omissions. Similarly, most firefighter injuries are influenced by the same factors. In the 1980's the Health and Safety Executive commissioned research to assess human influence at work and this led to the production of HSG48 (www.hse.gov.uk/pubns/books/**hsg48**.htm) *Reducing error and influencing behaviour*. This section briefly covers the Health and Safety Executive definition of 'human factors' in relation to planning and delivery of Fire and Rescue Authority services.

Fire and Rescue Authorities should consider the impact of 'human factors' on the safe, effective and timely resolution of an incident. This includes not only environmental, organisational and task demands but also human and individual characteristics that influence the behaviour of teams and individuals. Understanding these 'human factors' is critical to effective health, safety and welfare management.

The influence of human factors on behaviour at incidents should not be underestimated. Areas for consideration are concerned with where people are being asked to work; what they are being asked to do; and who is been asked to do it? There are a number of influencing factors that can impact on behaviour.

Withdrawn

9.1 The organisation

Organisational factors can have the most significant influence on team and individual behaviour. These influences and human contributions to accidents are often overlooked during the design of work, procedures and tasks, as well as during the investigation of safety events.

People can cause or contribute to accidents (or mitigate the consequences) in a number of ways.

Through an error, a person can directly cause an accident. However, people tend not to make errors deliberately. Actions by individuals are heavily influenced by normal practice and the culture of an organisation.

People can make disastrous decisions even when they are aware of the risks. They may also misinterpret a situation and act inappropriately as a result. Both of these can lead to the escalation of an incident. The consequences of human failures can be immediate (active) or delayed (latent). See Section 9.4 below.

Human factors should never be overlooked. Failure to take them into account and manage the risk of harm from any hazards present can lead to disaster, whereas good training, supervision, communication and provision of information will lead to a

competent workforce, which can be relied on to identify hazards, foresee and manage risks, and cope well with the unexpected in the operational environment – in short, a robust safety culture.

A number of organisational factors have been found to be associated with good safety performance and these are:

- effective communication
- learning organisation
- health and safety focus
- external pressures
- committed resources
- participation
- management visibility
- balance of productivity and safety
- high quality training
- a clean and comfortable working environment
- job satisfaction
- workforce composition.

Withdrawn

PANEL 2

Human factors – organisational influence

The operational imperative can influence individual behaviour, since dealing with 'persons reported' can influence the level of risk likely to be accepted by individuals and teams.

When writing procedures and developing training strategies a Fire and Rescue Authority should be mindful of the influence that the expression 'persons reported' can have.

It will have an influence on behaviour from the receipt of a call in fire control to fire station turnout, during response and immediately upon arrival.

There are many auxiliary phrases that relate to incidents that may involve people such as:

- possible persons reported
- suspected persons reported; and
- all persons not yet accounted for.

Use of such phrases and the effect they can have on behaviour is known as priming. Fire and Rescue Authorities should treat their use in operational procedures with great care.

Withdrawn

9.2 The task

When developing safe systems of work, supervisors, commanders and managers should take into account limitations and strengths of human performance. Matching tasks to people is an important aspect of the 'safe person' in the operational environment and will ensure that individuals and teams are not overloaded and are able to make the most effective contribution to task objectives.

9.3 The individual

Human behaviour will influence individual activities in the operational environment of an incident in complex and significant ways. Whilst characteristics such as personality are fixed, others such as competence, skills, attitudes and beliefs can be enhanced, influenced and changed. This is why developing non-technical skills is so important and can influence the behaviour of individuals in the safety critical operational environment.

Although personality, situation, and environment play an important role in behaviour, an individual level of risk acceptance dictates what this behaviour will be. Individuals subconsciously accept the level of risk they are comfortable with.

In the operational environment of an incident, individual influences on behaviour will include issues such as:

- personality
- safety attitude
- risk perception.

9.4 Contributing/causal factors to accidents

Active failures

Active failures have an immediate consequence and are usually made by front-line personnel. In a situation where there is no room for error these active failures have an immediate impact on health and safety.

When arriving at an operational incident the Incident Commander may face an uncontrolled situation with several hazards and risks, incomplete information and an expectation to act. Evidence from accident investigations has shown that firefighters and their Incident Commanders may attempt tasks regardless of the resources available to them, risking death or serious injury.

Adopting the following principles can control active failures:

- establishing safety leadership
- ensuring a safe operational culture
- accurate, two-way risk communication
- provision of suitable resources
- managing task demands (rest, recovery and stress)
- developing safe systems of work based on detailed national and local guidance.

Latent failures

Latent failures are typically failures in management systems (design, implementation, or monitoring) involving planners, decision-makers and managers such as:

Withdrawn

- insufficient integrated risk management planning
- insufficient monitoring and review of performance
- inadequate design of plant and equipment
- ineffective training
- inadequate supervision
- ineffective communications
- uncertainties in roles and responsibilities
- inappropriate procedures.

Suitable and sufficient planning is vital in reducing the influence of latent failures and to enhancing the safety of operational personnel and others likely to be affected by Fire and Rescue Authorities' operations.

Risk perception and consequently the level of risk individuals are prepared to accept varies and some individuals are known to have a high level of risk acceptance. The individual is the basic building block of a team and the Health and Safety Executive believes that there are few circumstances where an independent decision by a firefighter to put him/herself at risk will not result in risk to others in their team.

Withdrawn

SECTION 10

Monitoring and measuring performance

Fire and Rescue Authorities should have in place appropriate arrangements for monitoring and measuring health, safety and welfare performance against pre-determined plans and standards, including learning from incidents and using the information to improve operational performance**.**

Measurement is essential to maintain and improve health, safety and welfare performance, although a low accident rate is not an indication that risks are being effectively controlled and managed.

10.1 Performance indicators

There are two main types of performance indicator:

Leading indicators

A leading indicator requires a routine systematic check that specific actions or activities are undertaken as intended, for example, regular confirmation that competence-based training is being completed on time and to an appropriate standard.

Lagging indicators

A lagging indicator is not such an effective management tool for monitoring performance as a leading indicator. A lagging indicator is a reactive measure of weakness, such as information from monitoring operational incidents or accident data. A lagging indicator shows when an important safety outcome has failed, or not been achieved.

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Fire and Rescue Authorities should focus on a small number of core performance indicators with an emphasis on operational activity and those that most matter for firefighter safety, for example:

- demonstration of operational competence through completion of core training and assessment
- workforce fitness and wellbeing
- post-incident review and analysis to inform training needs.

Fire and Rescue Authorities should also consider how effective their interaction is with other organisations to ensure that their safe operational procedures are complementary.

There are a number of accepted methods of measuring safety performance to check that the system is working effectively. Good practice dictates that proactive and reactive systems are routinely used.

Proactive systems

Proactive systems provide information on performance and the adequacy of operational management arrangements, risk control systems and workplace precautions.

Proactive systems look for leading indicators of performance.

For example:

- Dissemination of operational intelligence (risk information) should be provided in a timely and appropriate manner to operational personnel to prevent and control safety critical risks. This can be effected by any suitable, accessible means which is traceable, for example, electronic; verbal; or written communication
- Critical incident debriefs, hot debriefs and routine operational debriefs should take place at a suitable time following closure of an incident to identify learning points even if no incidents or near hits occurred
- Formal debriefs involving other agencies and professionals (eg police; paramedics; specialist rescue teams etc) should be planned as soon as practicable following particularly challenging or complex incidents to enable learning and sharing of best practice. Again these debriefs are considered proactive if they are used to identify learning points, even if no incidents or near hits occurred
- Specific/ targeted operational monitoring should be undertaken to constantly monitor the performance of crews and the relevance of operational practices
- Direct observation of training, drills and exercises should take place to monitor adherence to performance standards, including safe systems of work and standard operational procedures
- Systematic inspections of stations, the workplace and work processes should take place to ensure preventative maintenance is being undertaken on equipment and workplaces
- Regular monitoring, including random observation; health, safety and welfare tours; periodic surveys on opinions; and inspections by safety representatives

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- Routine medicals and health surveillance to check the effectiveness of health control measures and detect early signs of health problems. This enables intervention strategies and rehabilitation plans
- Regular reports on health, safety and welfare performance presented to the Fire and Rescue Authority senior management team.

Reactive systems

Reactive systems are triggered after a safety critical event to monitor health, safety and welfare performance.

Reactive systems look for lagging indicators of performance.

For example:

- monitoring and trend analysis of statistical data such as accident and incident reports, near misses and hazards, equipment failures etc provides the opportunity to identify training needs and target resources
- safety critical event reporting
- reporting injury accidents and ill health (including monitoring of sickness absence)
- near hit, hazard, damage and defect reports
- accident, incident, damage and defect investigations
- analysis of failed performance targets
- reports on weaknesses or omissions in performance standards.

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Processes should be in place to ensure that the information gathered from all these methods is recorded so that plans are made to address any issues identified.

Accuracy of reporting

Both proactive and reactive systems rely upon timely and accurate reporting. Fire and Rescue Authorities should promote accurate reporting by:

- undertaking training which clarifies the underlying objectives and reasons for identifying such events
- developing a positive health, safety and welfare culture which emphasises individual responsibilities for observing and reporting
- encouraging open and honest communication and a ‘no blame’ culture

- collating and correlating data on injury reports, treatment and sickness absence against insurance claims and other losses (damage, maintenance, defects etc).

10.2 Operational assurance at incidents

Operational assurance at incidents deals with the effectiveness of the Fire and Rescue Authority's arrangements for implementation of guidance contained in generic hazard and risk statements and standard operational procedures, incident command, operational training and the maintenance of competence. By observing operational performance, Fire and Rescue Authorities can maintain and improve their ability to manage risks in the operational environment by learning from experience through the use of audits, monitoring and performance reviews.

Measuring performance at incidents against pre-determined plans and standards informs those managers responsible for strategic and systemic risk assessment how effectively they are controlling risks; how well they are developing a positive health, safety and welfare culture; and provides feedback that influences organisational learning and the decision making processes.

Dependant on local circumstances, Fire and Rescue Authorities should have a policy that identifies the type of incident at which observation and performance review would effectively identify areas of good practice and areas where improvement or change may be appropriate.

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10.3 Post incident/event learning and support

Post incident/event learning and support involves reactive methods of monitoring that consider how Fire and Rescue Authorities manage the outcomes of their performance monitoring, incident management, and individual learning and development, at incidents. This should also take into account the nature and timing of the actions necessary to share good practice and remedy deficiencies at the incident, strategic and generic levels of risk-management and a Fire and Rescue Authority's arrangements for 'closing the loop'. See section 12.4 below.

Post incident/event learning in the Fire and Rescue Authority originates from two sources:

- measuring performance through the incident debrief
- performance review through:
  - incident monitoring; and
  - incident/event investigation.

SECTION 11

Auditing

In this Framework, auditing has the specific meaning of a structured process of collecting information on the efficiency, effectiveness and reliability of the health, safety and welfare management system itself.

Control systems can deteriorate over time or become obsolete as a result of change. Therefore, Fire and Rescue Authorities should regularly assess how effectively their health, safety and welfare management system is in controlling risks.

Audit is concerned with the control system rather than the systems that are being controlled.

An audit would normally be a periodic (eg annual) examination of the whole health and safety management system. However, some components (eg identified risk control systems – competence) may need to be audited more frequently than others.

It should be clear that audit does not respond to health/safety issues that arise over a short time period. Audits ask whether the health and safety arrangements themselves are adequate.

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11.1 Audit objectives

An audit is designed to:

- Understand the responsibilities and risks faced by a Fire and Rescue Authority
- Assess the level of control exercised by management
- Identify, with management participation, opportunities for improving control
- Provide senior managers of the Fire and Rescue Authority 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 Authority, this includes:
  - reliability and integrity of operational information
  - effectiveness and efficiency of operations
  - safeguarding of assets; and
  - compliance with laws, regulations, and contracts.

11.2 Audit procedure

Plan the audit

Audits should be planned well in advance to ensure appropriate resources are assigned to undertake them. Fire and Rescue Authorities should ensure audits take place at reasonable intervals based on an assessment of the need.

Service improvement/action plans should incorporate the outcomes of audits. These should subsequently inform the service, station and departmental plans, training programmes and policy development.

Select auditors

Personnel appointed to carry out audits need to be competent (by virtue of training, knowledge, skills and/or experience) and should ideally be familiar with the process of carrying out an audit of a health, safety and welfare system.

As part of the process of selecting auditors, a decision will also need to be made about the type of audit. Internal and external audits both have their merits.

The **internal audit** is carried out by personnel from within the service.

An **external audit** is carried out by external auditors who should be selected on the basis of experience and specialism in carrying out health and safety management system audits. External auditors will be able to give an unbiased view without being influenced by over-familiarity with the Fire and Rescue Authority's management system.

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Decide on scope, objectives and methodology

The audit team will need to define which areas are to be covered and the benchmarks against which the collected information will be measured.

It is at this stage where a decision should be made to look at either the whole management system or a part of it. The methodology chosen should be able to tease out a true picture of how the organisation is operating.

Collect the information

Having determined how the audit is to be carried out, information should then be collected using a combination of the methods described below:

- **Speaking to/interviewing individuals**
  This enables knowledge and competence of individuals to be examined

- **Examining documents**
  These may include policies, integrated risk management plans, risk assessments, performance standards, training plans and records, and Authority's procedures. These should be checked for clarity and completeness

- **Direct observation of work/operational practice**
  This enables the audit team to gather information on the competence of individuals, suitability of training programmes and the effectiveness of risk control systems.

Finally, the information is collated and a report produced.

Withdrawn

SECTION 12

Performance review

Performance review is the final step in the health, safety and welfare management control cycle. This is an important component of the 'feedback loop' that enables the Fire and Rescue Authority to reinforce, maintain and develop its ability to reduce risks and ensure the continued effectiveness of the health, safety and welfare management system.

After using proactive and reactive monitoring methods and measuring performance, the results should be reviewed to evaluate whether planned objectives have been met and that health and safety is being managed effectively.

Reviewing is a process of making judgements about the adequacy of performance and taking decisions about the nature and timing of the actions necessary to remedy deficiencies. Carrying out reviews is a continuous process within any management system.

Feedback is essential to ascertain if the health, safety and welfare management system is working effectively. Feeding information back on success and failures acts as a motivator to maintain and improve performance.

A Fire and Rescue Authority's performance should be reviewed against agreed objectives and be considered at a number of levels such as individual, individual stations, groups of stations, departments or the whole organisation.

Reviewers should be competent, responsible and at a suitable level to make recommendations.

Fire and Rescue Authorities should reinforce achievements and encourage progress in those indicators that demonstrate improvements in risk controls. Any review should include responses at supervisory level where junior officers/supervisory managers and other managers take measures to address and highlight failures in workplace precautions and operational activities to:

- remedy sub-standard performance identified by proactive and reactive monitoring
- the assessment of plans at individual (appraisals), departmental, station, district/division or organisational level.

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The plans can include regular reviews of:

- firefighters, supervisory managers
- stations or departments
- districts/divisions/areas or the Authority as a whole.

If performance review is used in conjunction with, or as part of, workplace assessment and personal development, the performance of individuals should be measured against the standards relevant to their role.

Where the need for individual, team or organisational improvement is identified or considered necessary the system used for performance review should include the facility to record any appropriate corrective actions.

12.1 Incident debrief

It is widely recognised that incident reviews or debriefs play an important part in promoting improvements in personal and organisational performance. All Fire and Rescue Authorities should have a policy for gathering information from incidents for debrief of individual and team performance.

The timing, nature and type of incident that qualifies for debrief should also be clearly identified in the policy.

Often these criteria relate to incident size (number of appliances) and complexity but Fire and Rescue Authorities should also take care to place emphasis on smaller incidents, particularly those where any unconventional processes were successfully used or made the working environment safe.

Withdrawn

PANEL 3

Debrief

Whilst there is no best way or best time to conduct a debrief, there are several methods and models that can be used. Regardless of the methodology employed by a Fire and Rescue Authority the adopted method should:

- As soon as possible after an incident, allow individuals and teams that attended the opportunity to reflect on and record any issues arising from their experience
- At a suitable time, allow the appropriate participants to come together and utilise a debrief process which allows them to share, discuss and reflect on the performance and experiences of themselves, their teams, the designed procedures, and actual processes and equipment used at the incident in question
- Utilise any site-specific information, tactical plans, images and risk assessment documents generated during the incident
- Identify and record the positive experiences and ideas that will lead to improved individual, team and organisational safety and performance
- Identify and record shortcomings and areas for improvement in individual, team and organisational safety and performance
- Deliver the recorded outcomes to the systemic and/or strategic manager(s) responsible for their development and improvement
- Disseminate and share the management of outcomes with individuals, teams and organisations for incorporation into their organisational learning, development and incident response plans
- Contribute to the reduction of risk and improve the quality of service delivery in the community.

Withdrawn

12.2 Incident monitoring

The review of incident performance is an important aspect of maintaining health, safety and welfare performance. These processes set out to compare actual performance of equipment, individuals and teams against:

- equipment design and the designed systems of work (procedures); and
- planned outcomes for the safe and timely resolution of an incident determined by the actual systems of work adopted (processes) in an incident commander's plan.

This will help Fire and Rescue Authorities identify whether sub-standard performance lies in the design of the procedure, development of process, use of equipment or in the performance of individuals (including how human factors may have influenced incident outcomes).

PANEL 4

Performance review process

Depending on a Fire and Rescue Authority's resources, an incident monitoring, performance review process should:

- Commence as soon as possible, bearing in mind the type and size of an incident
- Provide maximum benefit by including the two areas that most influence the safe and successful resolution of an incident; management (the command function) and tasks (the operational tactics)
- Be done by an officer attached to the incident in one of two ways:
  - remotely, through reports and messages from the incident, whilst not actually on scene themselves
  - directly, by attending the incident to review and monitor progress.
- Provide on scene coaching and mentoring to the incident commander
- Include feedback to Incident Commanders at the conclusion of incident activities
- Inform individual and organisational learning
- Allow for the monitoring/performance review officer or tactical adviser to assume command:
  - in the event of an escalation in the incident, or
  - if the management of the incident requires action greater than coaching/mentoring or tactical advice.

Withdrawn

12.3 Incident/event investigation

The investigation of accidents, injuries and near hits reported during and after attendance at incidents acts as a constant reminder that these types of events continue to occur.

There are many different tools and techniques a Fire and Rescue Authority can use for post incident/event investigation of accidents, injuries and near hits. Whatever methods are used, it is not necessary to investigate all events in the same way but Fire and Rescue Authorities should put the greatest effort into significant events where serious injury, ill health or damage either occurred or had the potential to occur.

The primary purpose of an incident/event investigation is to identify the immediate, underlying and root causes of the incident (including human factors), in order to identify remedial action that will prevent recurrence.

A Fire and Rescue Authority's incident/event investigation standard operational procedure should include the following actions:

- immediately report, record and, where necessary, preserve evidence relating to the circumstances of an event
- identify someone with sufficient authority to implement any necessary immediate preventive measures to lead an investigation of the event
- where necessary, involve a team approach to investigation and analysis and include suitably competent subject matter experts and trade union representatives
- produce a timely report that communicates the facts about the event and identifies the corrective actions necessary for a Fire and Rescue Authority to minimise or if possible eliminate the circumstances
- publish a suitable plan of action which identifies responsible/accountable managers and target dates for completion of outcomes
- ensure organisational learning and development by sharing outcomes with the Fire and Rescue Authority sector and, where necessary, emergency response partners.

Withdrawn

12.4 Closing the loop – managing the outcomes of learning

The Health and Safety Executive explains how, when measuring performance, successful organisations emphasise positive reinforcement and concentrate on encouraging progress on issues that demonstrate improvements in risk control. In

order to do so, it is important that individuals and teams involved in an event/incident close the loop and learn from their experience by reviewing/debriefing their performance.

This single loop learning process ensures that learning outcomes are subject to an action plan that shares good practice and addresses any identified areas of need.

For a Fire and Rescue Authority to demonstrate transformational change from post event/incident reviews and debriefs, observing a 'double loop' process (PANEL 5) provides the opportunities for improvement, innovation, collaboration and partnership to be identified.

The outcomes of an organisational learning and development plan arising from both the single and double loop process identifies how improvement will be made. Plans include who will be responsible and how outcomes, particularly safety critical information will be communicated within and beyond the Fire and Rescue Authority involved. It is also important that whenever necessary plans for managing learning outcomes include all relevant emergency response partners and organisations.

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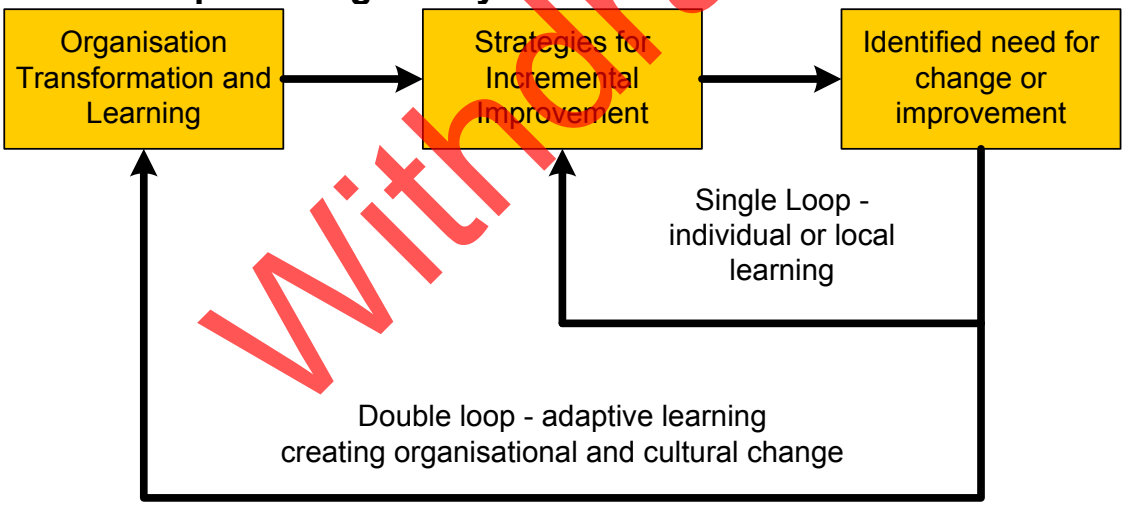
PANEL 5

Double loop learning theory



Although popular research and guidance on post-event learning makes reference to ensuring the learning environment is ‘blame free’, the safe person principles identifies areas of individual and collective responsibility for safety. With these responsibilities comes accountability and, despite taking into account human factors such as honest slips, lapses, and mistakes, on occasion violations make it difficult for a Fire and Rescue Authority not to take corrective measures.

However, transparency in the identification of learning from the lessons of debrief; performance review and incident/event investigation will demonstrate to individuals and teams the measures taken by a Fire and Rescue Authority in creating change and improvement in the management of safety at incidents.

In closing the loop, a Fire and Rescue Authority should secure arrangements that ensure learning from all post event/incident investigation influences change and improves safety by ensuring:

- Safety critical issues are communicated throughout the Fire and Rescue Authority in a timely manner
- Results are reported and communicated in such a way that they can be clearly linked to the original occurrence, via a process that provides open access from anywhere in the organisation
- Individual, and team development needs are identified and addressed through suitable plans
- Organisational strengths are identified, as well as areas for improvement in safe systems of work and safer working. These should be acted upon, improved and developed through changes in operational policies and standard operational procedures; and
- The post event/incident review policy includes arrangements for review of the event/incident investigation process and any safety critical outcomes have been received, read and understood by those to whom they apply.

Withdrawn

SECTION 13

Welfare at incidents

13.1 Planning for welfare and well-being at incidents

By planning for and adopting effective arrangements for the management of welfare and physical wellbeing at incidents, a Fire and Rescue Authority will support several key elements of the safe person principles contained in this guidance to ensure safe and effective operations at incidents.

The Health and Safety Executive's guidance on the provisions of the *Workplace, health, safety and welfare regulations* can be found on their website:

http://www.hse.gov.uk/pubns/books/l24.htm

Withdrawn

Fatigue

Fatigue can be dangerous when performing tasks that require constant concentration, as in the case of driving an appliance 'under blue lights' when responding to an incident; when conducting a breathing apparatus operation; or when treating casualties. Fatigue can be either physical or mental and may significantly affect a person's ability to function. Apart from general tiredness associated with fatigue in an operational environment, it could also result in:

- poor judgement
- reduced capacity for effective communication
- reduced coordination
- reduced visual perception
- reduced vigilance
- slower reaction times
- lack of concentration.

Rest

Due to the effects of heat as well as the physical efforts required to work in breathing apparatus, research has identified an optimum period of rest between operations requiring the wearing of breathing apparatus. Research has also identified a suggested maximum fire compartment penetration distance which also takes into account the effects of climbing stairs, such as when dealing with incidents in high rise buildings.

Exposure to excessive heat conditions and/or physical demands under stressful conditions can cause the onset of heat stroke, which will lead to disorientation, harm the central nervous system and in some circumstances lead to fatal injury.

PANEL 6

Work rotation and resting at incidents

In their approach to addressing rest and recovery at incidents, Fire and Rescue Authorities should ensure that when managing prolonged or difficult incidents a process of crew rotation is adopted to share incident workloads amongst attending teams. Incident rotation plans should consider establishing a hierarchy of task/work demand that in general terms sets out to:

- Provide work rotation which removes teams from 'high demand' activities to less demanding activities
- Provide work breaks that include a suitable rest period after a minimum and maximum period of work
- Take account of climate and the need for shelter, warming and cooling in conditions of intense cold or hot weather
- Make an allowance for refreshments and cooling whilst resting with simple cooling strategies such as head and forearm cooling; and
- Consider re-deployment to moderate activity before returning to 'high demand' activities such as breathing apparatus operations.

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Recovery

Operational personnel are unable to adequately recover prior to re-deployment and suffer a greater degree of physiological strain when rest periods of less than 15 minutes are taken. After moderate activities, a recovery period after an initial breathing apparatus wear is essential to allow core temperature levels to reduce, especially if the operation continued to the low cylinder pressure warning whistle.

Refreshments

Fire and Rescue Authorities need to recognise the importance of ensuring that operational personnel are provided with hot, warm or cold food and drink. Whilst local circumstances will vary, in terms of incident size, duration, geography and resources; the general objective for the provision of refreshments should be based on a minimum and/or maximum duration of work.

Combined with arrangements for rotation, recovery and rest, the provision of refreshments enhances the morale of teams during extended periods of incident

activity and can also preclude the need for a meal break to influence the relief of teams during a major or protracted incident.

Hydration

It is known that the level of hydration of an individual impacts upon physiological performance. Dehydration can be a problem during short and long duration operations, especially if ambient temperatures are high.

PANEL 7
Hydration

Hydration is essential and needs to be monitored at incidents. In general terms, it is necessary to replace 150 per cent of fluid lost through sweating.

Safety and welfare arrangements for incident management should include:

- The need for firefighters, their supervisors, managers and incident commanders to be aware of the symptoms of heat disorders which they and their operational colleagues may display
- Observation of specific individuals after exposure to high temperatures, especially if it is suspected that an individual is suffering from any heat disorder
- The provision of adequate supplies of drinking water, or suitable alternative fluids, which is critical to preventing the ill effects of dehydration.

Withdrawn

Further information can be found at:

Fire Research Technical Report 18/2008
http://www.communities.gov.uk/publications/fire/coretemperature

Toilets and hygiene

At protracted incidents provision should be made for suitable toilet and hygiene (hand washing or cleaning) facilities to be available for all personnel.

Relief of personnel

Apart from any normal arrangements Fire and Rescue Authorities make for the replacement of crews at the time of their change of shift, there is no definitive criterion for the relief or replacement of personnel when at an incident.

Reliefs are usually based on a minimum and/or maximum duration of attendance at incidents. However, this should not be the sole criteria or overriding factor for the

replacement of personnel at incidents. Not all personnel attending an incident will be subject to the same physical or emotional stresses and demands and managers will need to make an informed decision with regards to replacement of personnel.

Where necessary incident specific plans to address personal welfare and the need for 'recovery time' should influence the choice and number of personnel relieved from continued attendance at an incident.

13.2 Stress in the workplace

The general arrangements adopted for the physical and psychological wellbeing of personnel are linked to incident safety and welfare. Of particular importance is the impact of stress. Stress that leads to ill health can be caused by the reaction people have to excessive pressures or other types of demand placed on them.

The Health and Safety Executive has developed extensive guidance to assist Fire and Rescue Authorities in dealing with work-related stress. It offers a management standards approach (HSG 218) that refers to six areas of work that can lead to stress if not properly managed.

This can be found on the Health and Safety Executive's website:
http://www.hse.gov.uk/pubns/books/hsg218.htm

Withdrawn

13.3 Managing traumatic events at incidents

Operational personnel can be exposed to trauma at incidents. These traumatic events could induce 'stress' reactions within personnel and there may be an increased risk of experiencing psychological distress. These traumatic events could include:

- death of a colleague
- severe or serious injury involving children
- when victim(s) of an incident are known
- proximity to serious accident and injury
- multiple casualties
- high degree of risk of injury to the personnel; and
- events that are prolonged and end with a negative outcome.

Sickness absence, ill health and a reduction of competency are all potentially effects of traumatic incidents. Effective management that starts in the operational environment of an incident has the potential to reduce any negative impact of the critical incident.

In establishing arrangements for traumatic incident stress management at incidents, a Fire and Rescue Authority should consider the provision of appropriate support, advice and guidance to line managers and assistance to individuals who appear to have had significant reactions to the traumatic event. Follow up psychological support could include the use of critical incident stress debriefing provision, referral to occupational health specialists and/or access to employee assistance programmes, where personnel will have access to telephone or face to face counselling.

13.4 Fitness to work

The health and fitness of operational personnel should be tested at regular and suitable intervals for the duration of their fire and rescue career to ensure they are able to safely undertake the physical demands of the role and reduce risk of injury during operational firefighting.

Fire and Rescue Authorities should consider securing arrangements for rehabilitating operational personnel who have become injured. These should be planned to ensure personnel are safely returned to operational capability; having the additional benefits to both the individual and the Authority, by reducing the time lost due to sick absence:

http://www.firefitsteeringgroup.co.uk/firefitreport.pdf

13.5 Health surveillance

Fire and Rescue Authorities must have adequate and appropriate health surveillance procedures in place, in order to monitor the on-going health of their operational personnel.

Appropriately trained and competent health professionals must undertake this. This is especially important where there is a regulatory requirement to monitor the health of personnel, *eg Control of Asbestos Regulations 2012*.

http://www.hse.gov.uk/asbestos/

Withdrawn

APPENDIX 1

Example of specific policy content for breathing apparatus competence

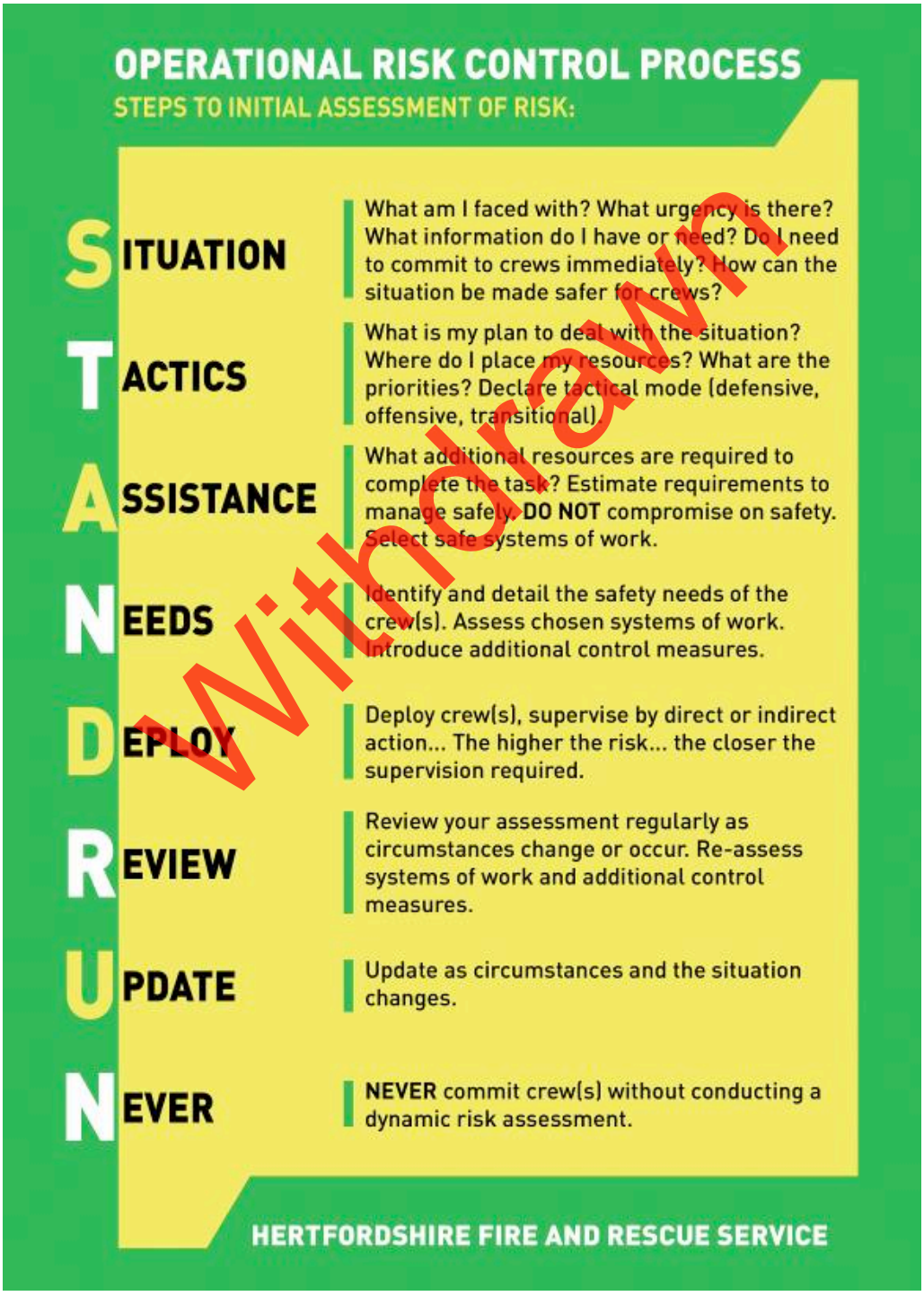
- Who needs to be competent in the use of breathing apparatus and what is needed to demonstrate competence - ie which guidance is relevant and what are the identified standards
- Which departments and personnel will come together to deliver competence plus details of specific responsibilities
- How competence is to be achieved from trainee firefighter through to on-going maintenance of skills for an experienced firefighter and for managers expected to apply breathing apparatus procedure/command and control
- Purpose, frequency, nature of breathing apparatus refresher training and interface with training recording system
- Role of training department:
  - competence of breathing apparatus instructors
  - up-to-date portfolios of evidence which exhibit competence to train and not merely focus on technical knowledge.
- Role of watch-based trainers:
  - structured and planned approach – with flexibility to react to developing/dynamic needs of the Authority but not adhoc
  - consideration of need for consistency across the Authority, from one watch to another and from whole-time firefighters to those in the retained duty system.
- Role of middle and strategic Fire and Rescue Authority management:
  - measuring performance.
- Role of health, safety and welfare experts:
  - quality assurance
  - mechanism for accessing this expertise.
- Contribution of practical learning, e-learning, simulation, observation, training department, operational work, tests/examination
- Set up of training needs analysis
- Assessment of skills (cross reference to breathing apparatus refresher training), application and underpinning knowledge.

Withdrawn

APPENDIX 2

Example of dynamic risk assessment method

Stand and run model for risk control process - Side 1



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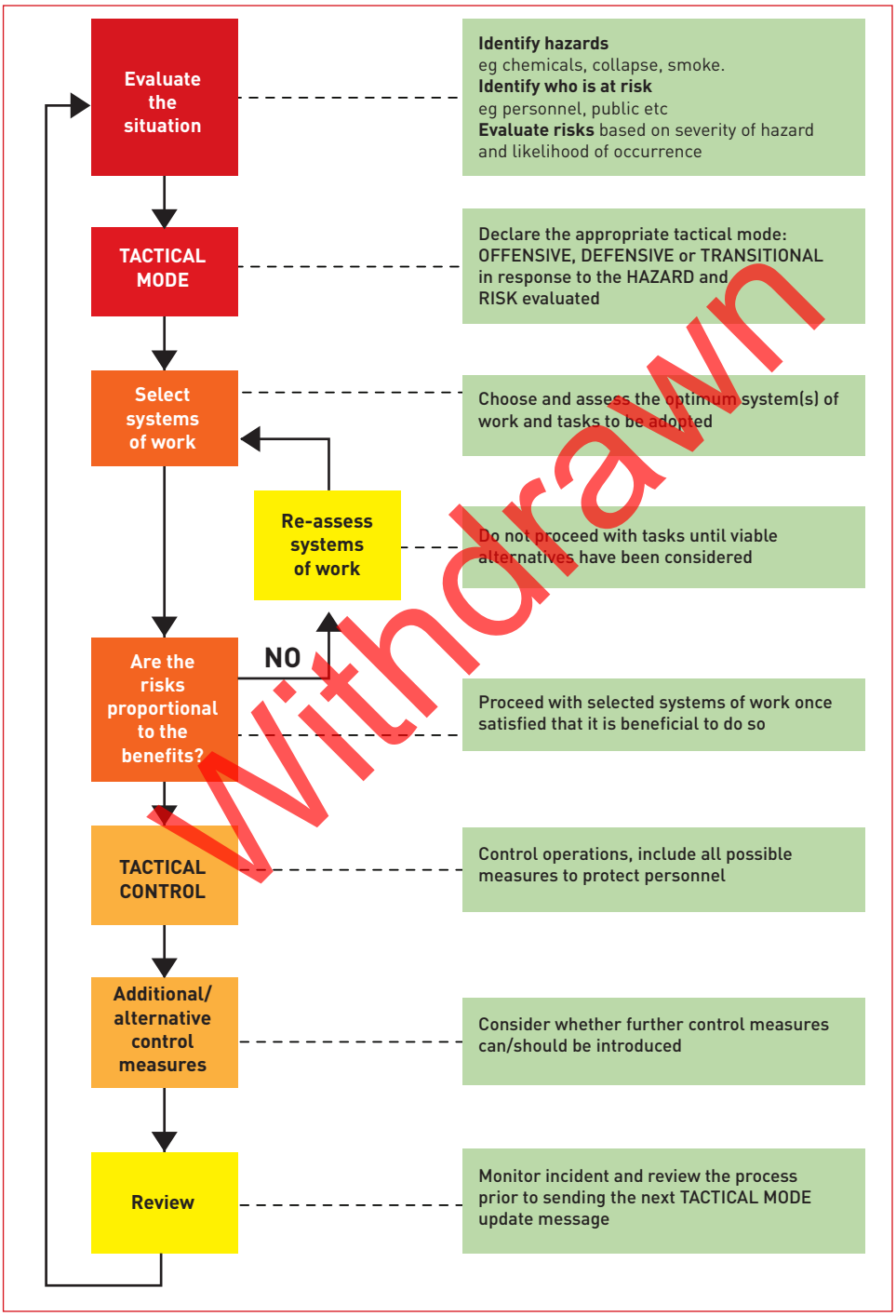
APPENDIX 2

Example of dynamic risk assessment method

Stand and run model for risk control process - Side 2

APPENDIX 3

Example of dynamic risk assessment flowchart



APPENDIX 4

Example of an individual risk assessment model

The 'STAR" individual risk assessment/individual decision making model

It is accepted that on occasions firefighters may be working at incidents without direct supervision. This may mean that firefighters encounter unforeseen or unexpected and sometimes life threatening circumstances.

This is when there is a need for **DECISION MAKING,** often with little time in which to react.

STOP

It is vitally important that in such circumstances you **STOP** any intended actions and quickly focus on the new **SITUATION.**

THINK

Then it is necessary to **THINK** about this new situation and assess the surroundings.

Is there a solution; is it clear what to do to reduce the risk of injury or harm?

How can you and those you are with stay as safe as possible in the circumstances?

ACT

Once aware of the situation now is the time to **ACT**.

If it is not clear what the safest course of action is, then the best thing to do is to communicate and get help and warn others that you are not adequately equipped or it's not within your range of skill or experience.

REVIEW

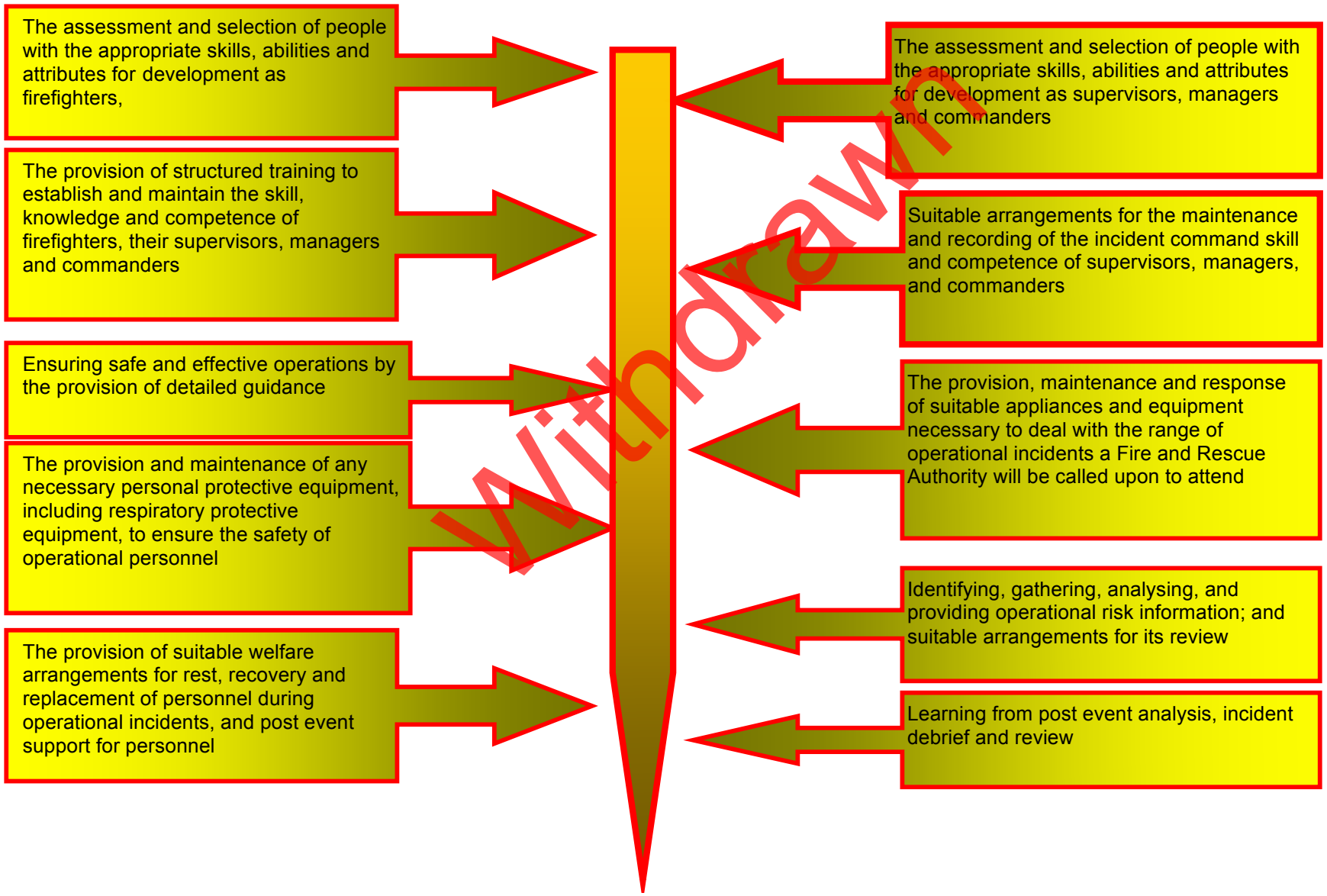
Once you've taken your chosen action, you and anyone with you should have an immediate REVIEW to assess the outcome. You may now have to **STOP, THINK, ACT** and communicate again.

Courtesy of West Midlands FRS

Withdrawn

APPENDIX 5

The Safe Person Principles of Fire and Rescue Authorities



INDIVIDUAL RESPONSIBILITY

COMPETENT

SELF AWARENESS

DECISIVE ABOUT HAZARD AND RISK

BEING OBSERVANT

COMMUNICATION

Withdrawn

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