



National  
Operational  
Guidance

## Hazard

**ARCHIVED - Injury or loss due to  
insufficient pre-planning for  
hazardous materials risks**



**NFCC**  
National Fire  
Chiefs Council

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## Hazard - ARCHIVED - Injury or loss due to insufficient pre-planning for hazardous materials risks

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### Hazard Knowledge

See National Operational Guidance: Operations - [Information gathering](#)

Fire and rescue authorities must have effective arrangements for gathering risk information and making it readily available to operational crews. This is especially important at incidents involving hazardous materials because of their effect on response tactics, such as cordons, personal protective equipment (PPE), environmental protection, protection of the local community, evacuation, shelter-in-place, and so on.

Each fire and rescue service should assess the hazards and risks in its area that relate to hazardous materials. Site-specific plans should be developed where the risks are significant.

The value of multi-agency pre-planning within the remit of the [Civil Contingencies Act](#) should not be underestimated. The importance of local emergency planning groups in the planning stage adds further dimensions to existing fire and rescue service work. It enables the risks to be viewed holistically and should add value to any plan, benefitting the responders and their communities.



## Control measure - Fulfil legislative responsibilities

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### Control measure knowledge

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

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

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Site-Specific Risk Information (SSRI)

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### Control measure knowledge

ARCHIVED -

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

- Extinguishing fires and protecting lives and properties from fires in its area (relevant fire and rescue service legislation for England, Scotland, Wales and Northern Ireland)
- Rescuing and protecting people from harm at road traffic collisions in its area (relevant fire and rescue service legislation for England, Scotland, Wales and Northern Ireland)
- Dealing with any other emergency function other than fires and road traffic collisions in its area (relevant fire and rescue service legislation for England, Scotland, Wales and Northern Ireland)

UK legislation sets the requirement for site-specific assessment. Collating and disseminating SSRI involves a number of tasks:

- Selecting premises to be inspected
- Assessing the nature and magnitude of the risk
- Considering a proportionate response
- Recording significant findings
- Making sure information is available in a useable form

A site-specific assessment takes account of current legislation on inspection information and includes information on preplanning firefighting tactics.

## **Tunnels and underground structures**

The planned operational response to underground incidents should be sufficient to allow relevant safe systems of work to be implemented.

During any construction process, it will be necessary to review the Site-Specific Risk Information (SSRI) and emergency response plans so that any changes that will affect the existing risk information and guidance can be reflected throughout the project.

Pre-planning should be carried out jointly with other responder agencies that have knowledge of the environment, including volunteer rescue and leisure groups.

## **Hazardous materials and environmental protection**

Fire and rescue services should assess the hazards and risks in their area relating to hazardous materials. This may be site-specific, for example, a factory using acid baths, or it may be generic, for example the local road network carrying hazardous materials.

The plans should also include information on pollution, prevention and control where a risk to the environment is identified at an incident. Although each nature conservation site will have its own environmental damage risks which can be captured with individual operational risk plans, a set of generic action plans will also help to identify generic environmental protection action to be taken in the early stages of an incident. Refer to the [Environmental Protection Handbook](#).

In addition to general site-specific information, the following should be considered:

- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Manufacture and Storage of Explosives Regulations (MSER), enforcement notices, prohibition notices etc.)
- Notification and Marking of Sites (NAMOS) inspections and information
- British Agrochemicals Safety Inspection Scheme (BASIS) inspections and pre-plans
- The asbestos register
- Significant Control of Substances Hazardous to Health (COSHH) assessments
- Control of Major Accident Hazards (COMAH) plans and information
- CBRN(E) site-specific plans

## **Strategic actions**

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Emergency response plans

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### Control measure knowledge

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

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

For further information see [Emergency Response and Recovery Guidance](#) (England and Wales), [Responding to Emergencies in Scotland](#) and [Emergency Planning, Northern Ireland Fire and Rescue Service](#)

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - Specialist advice: Hazardous materials

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## Control measure knowledge

To ensure a hazardous materials incident is managed safely, the fire and rescue service will need to ensure that specialist advice is available to support the incident commander and operational crews. The amount, quantity and quality of information will be directed by the nature of the incident and it is crucial that the on-scene commander or fire control room can access the most current information possible.

Specialist hazardous materials advice may be required to:

- Identify the release or spill
- Identify the hazards posed by the release
- Identify or predict physical or chemical reactions
- Assist with the selection of the most appropriate personal protective equipment (PPE)
- Assist with decontamination of people and equipment
- Mitigate further damage to the environment
- Ensure response plans and tactics are appropriate and safe
- Advise on the treatment of people who have been exposed
- Assess wider public safety concerns
- Assist with investigations and debriefings

There is significant capability for both on-site and remote scientific and specialist support for hazardous material incidents, particularly CBRN(e) incidents. Specialist advice may be provided by many sources and there is the possibility of duplicated, confused or even contradictory advice being provided to the incident. There may also be confusion between the scientific advice and responders in terms of language and technical knowledge.

There are a number of fire and rescue service specific resources.

### **National Resilience Assurance Team**

A national cadre of advisers from the fire and rescue National Resilience Assurance Team (NRAT) and National Strategic Advisory Team (NSAT), who provide tactical National Resilience capability advice to the fire and rescue service tactical and strategic commanders. These advisers are also able to provide communication conduits to the National Resilience Fire Control (NRFC) or Home Office Operations Centre where required.

For further information see the National coordination and advisory framework for the fire service in England (NCAF)

### **Tactical commanders with specific CBRN(e) training**

CBRN(e) tactical commanders understand the structures which support the tactical function of the delivery of scientific and operational support to the incident and can assist the on-scene commander in creating, implementing and reviewing an appropriate tactical plan in line with the strategy and parameters determined by strategic command and with due regard for partner agency needs.

### **CBRN(e) tactical advisers**

Tactical advisers have been identified within individual fire and rescue services to provide detailed tactical and capability relevant advice to on-scene incident, operations and sector commanders.

### **Hazardous materials advisers (HMA)**

These officers provide specialist advice to the on-scene commander and where appropriate, tactical and strategic co-ordinating groups. They will liaise with other specialist advisers and emergency services to provide information on:

- The extent of the hazard zones
- Personal protective equipment (PPE) selection and decontamination procedures
- Safe systems of work for those within the 'hot zone'
- The potential for escalation of the incident
- Interpretation of any information from other experts

Where available, the hazardous materials specialist may be supported by a:

- Detection, identification and monitoring (DIM) adviser
- CBRN(e) tactical adviser
- Multi-agency Scene Assessment Team (MASAT)

Police staff with an enhanced level of skill, knowledge and understanding

These include:

- Police CBRN(e) tactical advisers
- Police duty officers at the National CBRN Centre (N CBRN C) Operations Room
- Government Decontamination Service (GDS)

The UK Government Decontamination Service (GDS), is part of the Department for Environment, Food and Rural Affairs (Defra). GDS helps the UK prepare for recovery following a deliberate act involving chemical, biological, radiological and nuclear (CBRN) materials, or an accidental release of hazardous materials (HazMat), by providing a permanent on-call team for advice and guidance following a CBRN or major HazMat incident. Their role includes:

- Providing advice, guidance and assistance on decontamination to responsible authorities in





their contingency planning for, and response to, CBRN and HazMat incidents

- Plan and arrange for decontamination operations to be available to the responsible authorities should the need arise
- Responsibility for maintaining and building the GDS framework of specialist providers and ensuring that responsible authorities have access to them
- Advising central government on the national capability for the decontamination of buildings, infrastructure, transport and open environment

#### Other specialist service personnel and organisations

- Ambulance services have specialist officers, such as:
  - Hazardous Area Response Team (HART)
  - Medical Emergency Response Incident Team (MERIT)
  - Specialist Operational Response Teams (SORT) etc. who can provide advice on clinical care and decontamination of casualties
- Other specialists or service providers with specific knowledge of CBRN or hazardous materials, for example: scientific advisers, radiation protection advisers etc.
- Other agencies including Environment Agency, Public Health agencies (PHE) etc.
- Non-fire and rescue service personnel with specific knowledge of hazardous materials or individual products/processes, such as scientific advisers or company chemists
- The National Chemical Emergency Centre (NCEC) that provides 24-hour assistance through the CHEMSAFE scheme
- Government agencies, for example:
  - The Met Office
  - Atomic Weapons Establishment (AWE)
  - Defence Science and Technology Laboratory (DSTL)
  - Environmental agencies
  - Public health agencies
- Industry response schemes such as Radsafe or Chlor-Aid

Incident commanders will also be able to access information sources, both printed and in electronic format. Printed information sources include:

- The Dangerous Goods Emergency Action Code List (EAC)
- The Emergency Response Guidebook (ERG)
- Safety Data Sheets (SDS) also referred to as Material Safety Data Sheets (MSDS) and Chemical Safety Data Sheets (CSDS)
- Transportation instructions in writing (IIW)

Electronic information sources include: The Met Office Hazard Manager application, CHEMDATA, Wireless Information System for Emergency Responders (WISER), the ERG application, etc.

All fire and rescue services have access to specialist advice both from their own resources and from external sources, including scientific advisers and public health agencies. These are good sources of specialist knowledge but are not always available immediately on the incident ground.

## Strategic actions

Fire and rescue services should:

- Have arrangements to access risk critical information from remote specialists quickly during incidents, for example, Chemdata via vehicle mounted mobile data terminals (MDT)
- Ensure specialist personnel with enhanced skills, knowledge and understanding in hazardous materials operations are available to perform the key role of hazardous materials adviser (HMA)
- Ensure personnel understand the purpose of the hazardous materials adviser role
- Ensure that key dangerous substance information sources are immediately available, reliable and resilient
- Have policies and procedures that identify levels of specialist advice and how this advice can quickly be made available to the incident commander
- Have arrangements to access risk critical information from remote specialists quickly during incidents
- Provide access to enhanced skills, knowledge and understanding in CBRN(e) operations to perform the key advisory roles at incidents

## Tactical actions

Incident commanders should:

- Consider requesting the attendance of tactical advisers or subject matter experts
- Consider requesting the attendance of hazardous materials adviser (HMA)