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FOREWORD

Terrorist incidents involving Chemical, Biological, Radiological or Nuclear (CBRN) materials in the United Kingdom are rare, and historically the advice and training for initial responders has been to stand off and wait for the specialists.

This ‘Initial Operational Response’ (IOR) to a CBRN Incident guidance has been created in light of developments in scientific understanding and lessons identified from exercises and real incidents.

The focus of the IOR is to save as many lives as possible; to do this the emergency services must be aware of their role and responsibilities, what they can do to save lives safely, and the most effective time in which this action needs to be achieved.

The IOR starts from the very first call to the emergency services, or a self presenter at a health care premise. The role of the call handler/supervisor or first responder in identifying a potential CBRN incident and giving the correct, but simple, advice to the caller and dispatching the right resources is critical. The first responders must work together quickly and efficiently to save life, including conducting a joint dynamic hazard assessment to inform multi-agency decision making, achieve a safe multi-agency response, and deliver a safe resolution to the incident for the public and emergency responders alike.

All enquiries about this guidance should be directed to CBRNenquiries@homeoffice.gsi.gov.uk

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ESSENTIAL INFORMATION

SAVING LIFE
In the event of a CBRN incident, a rapid response is critical to the saving of life.
By Evacuating, effective Disrobing and Decontaminating the casualties, ideally within 15mins, the vast majority of the skin contaminant will be removed.

SAFETY OF FIRST RESPONDERS
The first responders must ensure their own safety by carrying out a Hazard and Risk Assessment. This should be shared with other agencies and be ongoing – a JOINT DYNAMIC HAZARD ASSESSMENT (JDHA). The JDHA will inform the AGENCY SPECIFIC DYNAMIC RISK ASSESSMENT.

EVACUATION
The removal of casualties from the scene of contamination (see glossary page 38) or point of release should be carried out as a priority. Casualties should be moved to an area upwind and ideally uphill of the incident.

COMMUNICATION AND ADVISE
It is important to clearly and continually communicate to casualties throughout the incident response including what you know about the incident, what you are doing to help affected people, and how they can help themselves. This will help foster public trust and confidence in responding organisations and help promote compliance with emergency interventions.

DISROBE
Casualty disrobing/undressing is a critical step in the decontamination process and is highly effective at reducing exposure to CBRN materials.
Undressing should be systematic and consistent with the steps outlined in the disrobe procedure (see Annex A). Consideration should be given to ensuring the welfare and dignity of casualties as far as possible.

DECONTAMINATION
Improvised decontamination is the use of an immediately available method of decontamination. This should be performed on all disrobed casualties as a priority.

DRY decontamination – should be considered the default process - primarily for chemical incidents - is the use of dry absorbent material such as paper tissue or cloths to blot and rub the exposed skin (see page 24 and Annex B).

WET decontamination – only to be used if signs and symptoms of caustic substance - is the use of water from any available source such as taps, showers, hose-reels, sprinklers, etc. (see page 25 and Annex C).
**INTRODUCTION**

This document provides advice and guidance to emergency services control room personnel and first responders in the event of a Chemical, Biological, Radiological or Nuclear (CBRN) release. However, the guidance is equally applicable to incidents involving other hazardous materials and can be implemented at any level of incident, not just a major incident. It is supported by an e-learning package, a short film and an aide memoire.

A first responder includes any member of the emergency services who is likely to be the first operational resource to be deployed to a CBRN incident. The person is unlikely to be trained in specialist CBRN response or have specific CBRN Personal Protective Equipment (PPE). This also includes staff at Health Care premises who may be required to carry out the role of a first responder.

It focuses on the multi-agency first response and the initial life-saving phase of a CBRN incident, and is intended to enable control room personnel and first responders to facilitate or undertake life-saving actions as soon as possible. This approach also promotes close inter-agency working, which is vital in responding effectively to a CBRN incident.

Previous protocols for the response to a CBRN incident, dictated that unprotected emergency responders should withdraw from the scene and await the arrival of specialist trained and equipped assets (STEP 1,2,3). However, recent evidence has pointed to a need for a more rapid and flexible approach to a CBRN incident.

Research\(^1\) has indicated that a rapid response is critical for effective life saving following a CBRN incident. Specific actions, which include the removal of casualties from the area of gross contamination and the removal of their outer clothing during the first fifteen minutes, can save life and can be achieved without putting emergency service responders at undue risk of exposure. A significant change to current procedures is the introduction of disrobing and decontamination\(^2\) at the first response.

The new approach outlined in this document, and underpinned by a CBRN First Responder Flow Chart, asks control room personnel and first responders to consider informing callers of, or undertaking, a range of rapid life saving tasks (STEP1-2-3 Plus).

This guide does not cover;

- the role and responsibilities of specialist responders such as Hazardous Area Response Team/ Special Operations Response Team
- Marauding Terrorist Firearms Attacks (MTFA) or
- Nuclear emergencies

Although the guide makes every effort to use terminology consistent across all the first responder agencies, there remains a possibility that the terminology used will differ from that used in multi-agency guidance and doctrine published subsequently. Any such differences will be picked up during reviews of the guidance and the principles contained within this guidance will remain extent until a revision is published.

Figure 1 overleaf, demonstrates the main actions that a first responder should consider in the initial period of time from arrival on scene to handing over to specialist or trained assets, and is critical to delivering the overriding priority of saving life.

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1. ORCHIDS – www.orchidsproject.eu
2. The “Guidance for the UK emergency services on decontamination V2.0 July 2013” covers this area in more depth.
IDENTIFY A POTENTIAL CBRN INCIDENT

CBRN Release Indicators – What to Ask/Look for!

In the early stages of an incident, it may be difficult to establish whether a CBRN event has occurred.

STEP 1-2-3 Plus - Safety Triggers for Emergency Personnel

STEP 1-2-3 is a familiar and well-established protocol for assessing the likelihood of hazardous materials being present at an incident scene, and determining subsequent actions. In this guidance, first responders are directed to consider a range of life saving actions once they have established that the situation requires a STEP 3 response. This is known as STEP 1-2-3 Plus:

**Step 1:** One person incapacitated with no obvious reason
- Approach using standard protocols

**Step 2:** Two people incapacitated with no obvious reason
- Approach with caution using standard protocols

**Step 3:** Three or more people in close proximity, incapacitated with no obvious reason
- Use caution and follow plus

**Plus:** Follow the CBRN First Responder Flow Chart to consider what actions can be undertaken to save life, using the following principles:

**Evacuate** – get people away from the scene of contamination

**Communicate and advise** – immediate medical advice and reassurance that help is on its way

**Disrobe** – remove clothing

**Decontamination** – dry decontamination should be the default process

Visual Indicators

Visual indicators of a CBRN event may include all or some of the following:

- Dead or distressed people, birds and animals
- Multiple individuals showing unexplained signs of skin, eye or airway irritation; nausea; vomiting; twitching; sweating; pin-point pupils; runny nose; disorientation; breathing difficulties; and convulsions
- The presence of hazardous materials or unusual materials/equipment
- Unexplained vapour or mist clouds
- Unexplained oily droplets or films on surfaces or water
- Withered plant life and vegetation

**Note:** Symptoms of exposure to a biological or radiological attack may not be present within the first minutes and hours of an attack occurring. Chemical releases are often, but not always accompanied by a more rapid onset of symptoms.
INITIAL CALL HANDLING

Gathering intelligence: Call takers need to gather sufficient information to assist control room personnel to make an informed judgement as to the nature of the incident and the resources required to respond effectively.

- Determine location of the incident
- Identify whether it is a possible CBRN incident – e.g. why is it suspicious? Is it a high profile location / building? Is there any intelligence to suggest the threat of a deliberate release?
  > 5 W’s: What is it, where is it, why is it suspicious, who found it, when was it found?
- Determine the scale of the incident – i.e. approximate numbers of casualties and scene(s) of contamination
- Establish the signs and symptoms the casualties are displaying
- What type of premises / venue is it?

Information gathered by call handlers will also form part of the Joint Dynamic Hazard Assessment (JDHA), so all information / intelligence received is to be shared with other control rooms and responding assets as a priority. The type of information that will inform the JDHA includes:

- CBRN release indicators
- Casualty numbers (walking and non walking)
- Severity and type of signs and symptoms
- Weather conditions – in particular wind direction
- Hazards present or suspected
- The location of the incident – is it likely to be terrorism or a hazardous material incident
- Environment – building, open space, underground
- Presence of perpetrators

If the call has been received via a non emergency call handler, ensure that the information above is obtained and an emergency call is made.

Advice to callers – In a suspected contamination incident

Note: Only give advice appropriate to the situation

- They must remain alert as the situation could change very quickly
- If it becomes obvious from information received that the caller is in a hazardous area, they must advise the caller to move to a safer area and encourage others to do the same.

- Incident in the open air
  > Move away from the source – upwind / uphill (walk into the wind)
  > Assist others who are less able or injured to carry out tasks - if you can
  > Do not eat, drink, touch your face/eyes or smoke
  > Remove outer clothing – do not pull clothing over head unless absolutely necessary
If possible use absorbent tissue or paper towels to blot and rub the exposed skin. Only wash with water if there are signs of exposure to caustic substances (e.g. itching or pain)

> Then move away again upwind / uphill
> Do not make your own way to the hospital – medical assistance is on its way
> Wait for the emergency services to arrive and act upon their instruction

- **Incident inside a building**
  > If an item or package: leave it alone, do not cover, immerse or move it
  > Close windows and doors in the immediate area.
  > Shut down air-conditioning, fans and air recirculation systems
  > Evacuate the affected area – consider use of the fire alarm system (where appropriate) consider route – some gases are heavier than air
  > Once outside follow open air advice above

### Control Room Priority Actions

#### Inter-agency communication:

Control Rooms should liaise with multi-agency partners about the nature and scale of the incident. Inform them of any resources and personnel that are on scene and of any initial actions that have been taken.

- Alert resources who may be in the vicinity of the hazard(s)
- Following appropriate advice (from the scene, information obtained and contingency plans) direct all responding assets initially to a nominated rendezvous point (RVP), which must be upwind and preferably uphill of the incident site
- Direct an incident commander to the scene

### Control Room Supervisor

#### i) Initial Command and Control

It is possible that early on in the incident members of one service will spontaneously carry out tasks normally the responsibility of another. As soon as sufficient staff arrive, Control Rooms should ensure there is an appropriate command structure in place to ensure each agency meets its role and responsibilities.

#### ii) Seek specialist advice

If the information received suggests a CBRN event, control room personnel should notify CBRN specialist advisors through their standard pathways. Specialist advisors may then choose to activate the Emergency Coordination of Scientific Advice (ECOSA) network.

ECOSA advice should be immediately shared as part of the ongoing JDHA.

#### iii) Brief the control room staff to expect enquiries from involved or concerned members of the public.
Initial information from the scene, and report to Control Room

If the above advice has been given by the call taker, first responders may be faced with affected people in the open air away from the source, starting to disrobe and carrying out improvised decontamination.

Situation Reporting

Effective situation reporting from the scene of contamination is vital to ensure that the correct information can be disseminated appropriately to enable all agencies to maintain shared situational awareness.

Agencies may have different models for situation reporting from a Major Incident, and they should utilise their usual model. What is more important is that any situation report contains the following information, as a minimum:

- Type of incident and whether a Major Incident declared
- Location of incident and the nominated RVP(s)
- Access / Egress routes to incident / RVP(s)
- Number of casualties and type / severity of injuries
- Hazards
- Emergency Services already on scene, and those that may be required

Control Rooms can start to gather the required information from the first call, and must share any information gathered with other Control Rooms and attending resources as soon as practicable.

Responders should gather the required information as a priority on arrival at scene, and disseminate to their Control Rooms and other agencies on scene as soon as possible. The lack of one piece of information should not delay the sending of the first situation report; this can be added as soon as the further information becomes available.

Further situation reports should be compiled and disseminated at regular intervals, or whenever further or updated information becomes available. Each agency should maintain a log of the situation reports completed.

The identification of the hot zone (the contaminated area(s) where the initial release occurs or disperses to) may be difficult. Many variables exist: material, quantity, quality of contamination, the location and weather conditions. This should be a priority of the JDHA (see page 12).

Where an explosive device is suspected, the hot zone will be initially set as per bomb scene management guidelines (Police) i.e. 100mtrs, 200mtrs and 400mtrs. FRS will work to their existing guidance for incidents involving explosives.
JOINT DYNAMIC HAZARD ASSESSMENT

The Joint Dynamic Hazard Assessment is a key component in achieving a safe multi agency response to deliver a safe resolution to the incident. It is part of the Joint Decision Model (JDM), stage 1, gather information and intelligence. The process should ideally be multi agency; however, the non-attendance of a particular emergency service or their on-scene commander should not in itself stop this process from taking place but may impact on any decision to deploy personnel.

In order to deliver an effective integrated multi agency operational response plan, the following key steps must be undertaken:

- **Identification of hazards** (gather information and intelligence) – this will begin from the initial call received by a Control Room and will continue as first responders arrive on scene. Information and intelligence gathered by individual agencies must be disseminated to all first responders and Control Rooms effectively. The following should be taken into account when identifying hazards:
  - CBRN release indicators
  - Casualty numbers (walking and non walking)
  - Severity and type of signs and symptoms
  - Weather conditions – in particular wind direction
  - Hazards present or suspected
  - The location of the incident – is it likely to be terrorism or a hazardous material incident
  - Environment – building, open space, underground
  - Presence of perpetrators

This information is then used to move to Stage 2, 3 and 4 of the JDM

- Identification of the tasks - each individual agency should identify and consider the specific tasks to be achieved within its own role and responsibilities
- Dynamic Risk Assessment – undertaken by individual agencies, reflecting the tasks / objectives to be achieved, and the hazards that have been identified
- Apply control measures – each agency should consider and apply appropriate control measures to ensure any risk is as low as reasonably practicable
- Integrated multi agency operational response plan – the development of this plan should consider the outcomes of the hazard assessment, and service risk assessments within the context of the agreed priorities for the incident
- Decision Log – the outcomes of the JDHA and risk assessments should be recorded, together with the identified priorities and the agreed multi-agency response plan

The process should be periodically reviewed and re-assessed to ensure that all new information and intelligence is captured and considered, and to ensure the tactics employed are safe and effective.

Figure 2 provides an illustration of the process.
LIFE SAVING ACTIONS

Evacuation Disrobe and Decontamination
Moving casualties away from the scene of contamination followed by immediate disrobing and decontamination is the most effective measure in saving life and improving casualty outcomes in a CBRN event. Maximum benefit of this will be achieved within fifteen minutes of exposure.

These early operational activities should be considered an absolute priority.

Casualties should be directed away from the scene of contamination and point of release.

Identify an area away from the main area of contamination i.e. the suspected point of release and any subsequent contamination spread. The identified area of safety should, where practicable, be upwind and ideally uphill of the incident.

Any casualties who are able to walk should be directed to this area with the minimum of direct physical contact from emergency responders. Consider telephone/mobile phone, loud hailer or other means.

This area will still be deemed to be within the warm zone and should not be entered by responders without the most appropriate level of PPE informed by the JDHA (see Figure 3).

Communication to casualties – on scene
If members of the public believe that emergency responders are withholding information about an incident, trust and credibility can be quickly lost. Research into public responses to emergencies has shown that the public are willing to accept that much about the situation will be unknown in the early stages, particularly if they believe that emergency responders are working in their best interests. Therefore it is important to clearly communicate what you know about the incident, what you are doing to help casualties and how they can help themselves. This will help foster public trust and confidence in responding organisations and help promote compliance with emergency interventions.

First responders should consider communicating:

- What they know of the nature of the incident, even if it is just that more help is on its way.
- What the emergency services are doing and that these actions will help
- That medical assistance is coming to them – they should not leave the scene
- To follow the advice and instructions from the emergency services
- To assist others who are less able or injured to carry out tasks - if they can
CASUALTY MOVEMENT AWAY FROM CONTAMINATION

Hot Zone  

Main area of contamination / point of release

Move to relative safety

Disrobe

Decontamination

Ongoing casualty management

Warm Zone

Cold Zone

Figure 3

Casualty Movement

Wind Direction
RESCUE

Casualties that are identified as breathing and conscious but unable to walk should be regarded as a high priority to be rescued. They should be removed from the perceived area of greatest contamination and also relocated to an area of relative safety. At the earliest practicable opportunity, these casualties should be assisted to disrobe and if possible undergo improvised or interim decontamination, ideally within fifty minutes of exposure.

As first responders, only the FRS have suitable PPE to carry out rescue within the hot zone and therefore should be the only people to enter this area.

It is recognised that the time taken to don Gas Tight Suits (GTS) may compromise the ability to rescue non walking, saveable life casualties in a timely manner. In these circumstances the FRS Incident Commander (IC) must consider the use of other acceptable PPE ensembles.

FRS structural firekit combined with Self Contained Breathing Apparatus (SCBA) provides a lesser degree of protection than GTS, but research has demonstrated that protection factors provided by this level of PPE reduces the risk to FRS personnel to a level that may be considered acceptable in circumstances where saveable life rescues could potentially be undertaken using ‘snatch rescue’ protocols.

Further guidance to inform the decision making process for selecting the most appropriate level of PPE and the development of a rescue plan is contained in Annex D. It should be noted that the use of firekit and SCBA must only be utilised during the initial stages of the incident to undertake immediate life saving activities. During later phases activities such as Mass Decontamination, the levels of PPE identified within existing guidance must be adopted.

SAFETY NOTE: It cannot be over emphasised that this guidance is not an instruction to deploy FRS personnel into a potentially contaminated area in standard firekit and SCBA in every circumstance. The purpose is to provide Incident Commanders with guidance in making a calculated risk based decision (dynamic risk assessment) and underpin the existing Fire Service ‘snatch rescue’ protocol; based on all available information on whether to deploy personnel forward in firekit and SCBA as part of a risk assessed plan to rescue saveable lives.
Agency Specific Dynamic Risk Assessment

Figure 4

Figure 4 is an extract from the first responder flow chart and represents the dynamic risk assessment process. ‘Dynamic’ takes into account the continually and sometimes rapidly evolving nature of an incident. Whilst the risk benefit judgement and the health & safety risk assessment are two separate processes, in practice these processes become joined.

This is Stage 2 of the JDM – Assess Threat and Risk and develop a Working Strategy


It is essential that an effective risk assessment is carried out as soon as possible and in consultation with emergency service partners. In a high risk, time pressured environment, responders must implement greater levels of control measures, in order to reduce risk to an acceptable level. This requires balancing the need to save life with the need to reduce risk to personnel. Only then can personnel be committed to the hot / warm zone.

**The risk to responders must be reviewed continuously and updated as required**

In deciding whether the risk to the health and safety of responders is being reduced as low as reasonably practicable (ALARP), a number of factors have to be taken into account. Whilst it may be appropriate to commit appropriately equipped and trained personnel into a hazardous environment for the purpose of saving life, it may not be appropriate in a similar situation where there is no saveable life. All agencies should carry out suitable and sufficient hazard and risk assessments when responding to incidents.
The key elements of the risk assessment process are:

- Confirm what you are seeking to achieve
- Identification of the hazards
- Decide who might be harmed and how
- Evaluate the risks and decide on precautions and control measures
- Record the findings and implement them
- Review the assessment and update if necessary

Scene Management:

Management of the scene is crucial to ensure:

- Emergency responders are working in a controlled environment
- That the public cannot enter the area, thus preventing further casualties
- The avoidance of the risk of spreading contamination in the wider community
- That the scene is protected – potential crime scene

Disrobe

The process of disrobing is highly effective at reducing reaction to CBRN materials when performed within fifteen minutes of exposure. If disrobing followed by appropriate decontamination is done effectively, scientific research has shown that you should be confident of removing the vast majority of skin surface contaminants.

Therefore, disrobing must be considered the primary action following evacuation from a contaminated area.

FRS disrobe packs are available on frontline appliances; they should be immediately distributed to casualties. A safe undressing procedure is outlined in Annex A which minimises spreading contamination from clothing to exposed skin. Packs can be thrown to the casualties removing the necessity to enter the warm zone.

If FRS disrobe packs are not available, responders should consider improvising the disrobe procedures.

Undressing should be systematic and consistent with the steps outlined Annex A, to avoid transferring any contamination from their clothing to the skin or airway.

Responders should also consider the potential for hypothermia, as well as modesty concerns. Any such provisions should take careful account of the dignity of the contaminated casualty and of particular ethnic, cultural or religious sensitivities.

If available, alternative clothing or blankets should be used. Contaminated clothing should be left in situ; it will be managed by specialists at a later time.
Note: Casualties and responders should not eat or drink anything or smoke and avoid touching of the face due to the risk of ingesting or transferring hazardous materials.

**Communication to casualties:**

Communicate:

- **Why and how** casualties need to be disrobed and decontaminated
- To assist others who are less able or injured to carry out tasks - if they can
- That more help is coming and do not leave the area
- Casualties should not eat or drink anything or smoke and avoid touching of the face due to the risk of ingesting or transferring hazardous materials

Consider all options to communicate this message effectively, including use of loudhailers and providing demonstrations of disrobe and dry decontamination.
Improvised decontamination should be performed on all disrobed casualties, unless medical advice is received to the contrary. Dry decontamination should be considered the default process for an incident involving chemicals unless the use of water is justified (see below).

Generally, in the very early stages of an incident and dependent on the symptoms and needs of contaminated people, improvised decontamination may be initiated by casualties, other people or emergency service personnel.

Before specialist resources arrive on scene, first responders should consider:

**Dry Decontamination**

Unless casualties are demonstrating signs or symptoms of exposure to caustic or irritant substances for example, redness, itching and burning of the eyes or skin, exposed skin surfaces should be blotted and rubbed with any available dry, absorbent material such as paper tissue (e.g. ‘blue roll’). All waste material arising from decontamination should be left for disposal at a later stage.

**Wet Decontamination**

Water should not be used for decontamination unless casualty signs and symptoms are consistent with exposure to caustic substances such as acids or alkalis or the contamination has been identified as biological or radiological in nature. Wet decontamination may be performed using any available source of water such as taps, showers, fixed installation hose-reels, sprinklers, etc. When using water, it is important to try and limit the duration of decontamination to between 45 and 90 seconds and, ideally, to use a washing aid such as a cloth or sponge. See Annex C.

Improvised decontamination should not involve overly aggressive methods to remove contamination as this could drive the contamination further into the skin.

**Additional Note**

- Following improvised decontamination, remain cautious and observe for signs and symptoms in the decontaminated person and in unprotected staff.
- If water is used to decontaminate casualties this may be contaminated, and therefore hazardous, and a potential source of further contamination spread.
- All materials (paper tissues, etc.) used in this process may also be contaminated and should where possible not be used on new casualties.
- The risk from hypothermia should be considered when disrobing and any form of wet decontamination is carried out.
- People who are contaminated should not eat, drink or smoke before or during the decontamination process and should avoid touching their face.
People who are processed through improvised decontamination should subsequently be triaged and subject to health and scientific advice. Based on the outcome of this assessment, they may require further decontamination.

It should be anticipated that early disrobe and improvised decontamination will be largely effective at removing a contaminant from exposed casualties.

Following the correct method of disrobe and improvised decontamination, casualties should be moved to a safe location to be triaged and prioritised by health responders.

**Interim Decontamination**

This is the use of standard FRS frontline (initial response) equipment to provide a planned and structured decontamination. This is covered in more depth in Annex D.
ROLES AND RESPONSIBILITIES

The emergency services have distinct roles and responsibilities at a CBRN incident; although it is possible that early on in the incident members of one service may carry out tasks normally the responsibility of another. Annexes D, E and F identify what actions should take place within the Initial Operational Response phase and as the incident response progresses.

Arrival Of Specialist CBRN Assets

Specialist CBRN assets will arrive at the RVP at different times, therefore a phased approach to the transition from initial to specialist response will take place.

The Ambulance Service Hazardous Area Response Team (HART) and/or Specialist Operations Response Team (SORT), upon arrival, will start to assist with the triage, treatment and handling of the casualties.

The FRS detection, identification and monitoring (DIM) teams, upon arrival, will commence the process of detecting and identifying the contaminant, and monitoring the scene. FRS Mass Decontamination resources the process of setting up public decontamination structures and will be able to provide first responders with additional CBRN PPE and responder decontamination structures.

Police CBRN trained and equipped officers will, upon arrival, assist with scene and casualty management (this role also includes investigation – evidence and intelligence gathering).

Hospitals with appropriate equipment and trained staff, will be considered as specialist CBRN assets, where casualties self present.

It is important that accurate information and intelligence is relayed to specialist teams when they arrive on scene. Information should be gathered and reported regularly to control room operators.

Handover or briefing information should include:

- An update on the JDHA and Risk Assessment
- Approximate number of casualties
- Signs and symptoms of casualties
- Any information or intelligence on the substance / material / agent involved in the incident
- Actions completed
- Actions underway
- Actions outstanding
ANNEX A

DISROBE PROCEDURE

FRS disrobe packs are carried by frontline appliances and contain guidance and the appropriate equipment to carry out a safe undressing procedure.

If the packs are not available, responders should try to follow the same procedure and improvise where possible.

The following procedure should be used –

- Blot and rub hands with absorbent material such as paper tissue/roll etc.
- Put gloves on (if available).
- Blot and rub face and blow nose with the absorbent material.
- Dispose of absorbent material into large bag (if available)
- Put dust mask on (if available)
- Remove clothing down to underwear NOT OVERHEAD - Cut if required
- Dispose of clothes in large bag
- Dispose of valuables into small bag
- Blot and rub all exposed skin and hair with absorbent material such as paper tissue/roll etc changing regularly
- Dispose of absorbent material into large bag
- Remove gloves
- Put a disrobe cape on (if available) or blanket
- Put wristband from disrobe pack on
- Put shoes and socks from disrobe pack on
- Put disrobe pack tag on clothing bag
- Put disrobe pack tag on valuables bag
- Move away from bags towards the emergency services and await further instruction

(The disrobe pictogram on the disrobe packs is currently under review)
DRY DECONTAMINATION OF CASUALTIES

Improvised Dry Decontamination

Dry decontamination is to be considered the default method of decontamination following disrobe. Wet decontamination is only the preferred option when casualties are demonstrating signs or symptoms of exposure to caustic or irritant substances such as acids or alkalis (for example, redness, itching and burning of the eyes or skin).

If walking casualties can self-decontaminate then this is the best approach to take. Emergency service personnel should supervise and assist casualties to perform dry decontamination as required.

To perform improvised dry decontamination:

- Any available dry, absorbent material can be used, for example:
  - kitchen towel, toilet roll or paper tissues, such as ‘blue roll’
  - towels and clean rags
  - strips of blanket or sheeting
- Other absorbent materials like dry soil or cat litter can also be used.
- Exposed skin surfaces should be blotted and rubbed, starting with the face, head and neck and moving down and away from the body.
- Sufficient absorbent material should be used to avoid transferring contamination from one part of the body to another.
- Rubbing and blotting should not be too aggressive, or it could drive contamination further into the skin.
- All absorbent materials used in this process may also be contaminated and should not be used on a new casualty.

All waste material arising from dry decontamination should be left in situ, bagged if possible, it will be managed by specialists at a later time. Casualties should be moved away from waste materials arising from improvised dry decontamination as soon as possible.
ANNEX C

WET DECONTAMINATION OF CASUALTIES

The ‘RINSE-WIPE-RINSE’ Method of Improvised Wet Decontamination

Equipment

For the effective application of the **RINSE-WIPE-RINSE** method of skin decontamination, the following is required:

1. Water, preferably warm.
2. A bucket or other container (5-10 litre capacity) or a shower head with clean, preferably warm, running water.
3. A second bucket (5-10 litre capacity) for use with a water (preferably warm) and detergent mix.
4. Detergent.
5. A sponge or soft brush.

Procedures

If walking casualties can self decontaminate then this is the best approach to take.

Emergency service personnel should supervise and assist as required.

The recommended procedure for applying the **RINSE-WIPE-RINSE** method is as follows:

1. Make up a water/detergent solution of 0.5% detergent in warm water (5ml of detergent per litre of water or about three squirts of liquid detergent into a bucket of water).
2. Having removed the contaminated person’s clothes, **RINSE** the affected areas with clean water (no detergent) using showerheads or buckets. **RINSE** from the highest point downward, ensuring that any sponge or brush used does not come into contact with the casualty or their clothing.
3. The **RINSE** should be applied to **contaminated** areas of skin only, to avoid spread to uncontaminated areas.
4. Using the water/detergent mix detailed in 1.
5. **WIPE** the affected areas of skin with a wet sponge or soft brush. **RINSE** the decontaminated casualty with clean warm water (no detergent) to remove the detergent and any residual chemicals.
6. Dry the skin with a clean towel.
7. This process should not take more than three to five minutes for an individual walking casualty. Repeat the **RINSE-WIPE-RINSE** procedure only if skin contamination remains obvious. (Persistent chemical warfare agents are poorly soluble in water and might require extended or repeated application.)
INITIAL ROLE & RESPONSIBILITY OF THE FIRE & RESCUE SERVICE

The Fire and Rescue Service will:

- Jointly initiate the hazard assessment process AT SCENE. Individual services will be responsible for undertaking their own risk assessments.
- Carry out search and rescue (as appropriate).
- Support the Ambulance Service by the extraction and immediate life-saving interventions of casualties.
- Co-ordinate and undertake the movement of casualties to a safer location (warm zone).
- Carry out improvised or interim decontamination of casualties, utilising available resources where appropriate, and in conjunction with the Ambulance Service.
- Render other humanitarian support.
- Detect, classify, identify and monitor any CBRN materials (if possible).
- Contain and/or mitigate CBRN materials (if possible).
- Provide advice to Police and Ambulance Services on potential fires and other hazards.

Hot Zone Rescue

It is recognised that the time taken to don Gas Tight Suits (GTS) may compromise the ability to rescue immobile, saveable life casualties in a timely manner. In these circumstances the Incident Commander (IC) must consider the use of other acceptable PPE ensembles.

FRS structural firekit combined with Self Contained Breathing Apparatus (SCBA) provides a lesser degree of protection than GTS, but research has demonstrated that protection factors provided by this level of PPE reduces the risk to FRS personnel to a level that may be considered acceptable in circumstances where saveable life rescues could potentially be undertaken using ‘snatch rescue’ protocols.

The joint emergency services standard PPE research, undertaken to support this guidance, has also demonstrated that only the Fire Service has standard PPE with a suitable level of protection for limited exposure to such environments; therefore only FRS personnel must be considered for deployment to undertake rescues.

It should be noted that the use of firekit and SCBA must only be utilised during the initial stages of the incident to undertake immediate life saving activities. During later phase activities such as Mass Decontamination, the levels of PPE identified within existing guidance must be adopted.

First responders must gather hazard information about the incident, on which to inform an effective JDHA. Ideally the JDHA should be a multi-agency process; however the lack of any particular emergency service on-scene commander should not in itself prohibit this process from taking place but may significantly impact on any decision to deploy personnel. It is recognised that
the absence of the Police, who may have key information and intelligence to inform the decision making process, may directly influence any decision to deploy FRS responders into the hot zone.

SAFETY NOTE: It cannot be over emphasised that this guidance is not an instruction to deploy FRS personnel into a potentially contaminated area in standard firekit and SCBA in every circumstance. The purpose is to provide Incident Commanders with guidance in making a calculated risk based decision (dynamic risk assessment) and underpin the existing Fire Service ‘snatch rescue’ protocol; based on all available information on whether to deploy personnel forward in firekit and SCBA as part of a risk assessed plan to rescue saveable lives.

Hazard Assessment

- In the event of a suspected or confirmed CBRN incident, it is recognised that it is unlikely that it will be possible to identify the contaminant until DIM equipment can be deployed, however the signs and symptoms of the casualties will give an effective indication of the toxicity of the agent, and whether it acts via inhalation or skin exposure
- Is the hazard a liquid or a solid? Structural firekit will not provide significant protection against toxic liquids or powders, therefore direct contact with potential contaminants in solid or liquid form should be avoided
- Is the hazard a vapour?
- Multiple immediate fatalities attributable to poisoning are indicative of exposure to a contaminant that acts via inhalation
- FRS SCBA will provide responders with an effective level of protection for up to 30 minutes against those contaminants that act via inhalation or ocular exposure
- If casualties are showing signs and symptoms of being exposed to a vapour which acts via dermal exposure, such as caustic chemicals or vesicants (blister agents) and as indicated by blisters, itching, etc; responders should limit time spent in such environments to an absolute minimum, but still no longer than 30 minutes
- Do not just assume chemical related hazards; also consider the possible presence of biological agents, radiological materials and / or explosive devices
- Consider the weather conditions; ICs should immediately obtain FIREMET information and ensure arrival at scene is from an upwind direction

Casualty Information

- Are live casualties visible? Are they in line of sight? How long will it take to reach them?
- Are the casualties in open air? Volatile vapours will disperse much more readily in open air, reducing the risk for emergency responders
- Are the casualties walking or unable to move? Walking casualties should be directed to a place of relative safety without committing crews into the hot zone. Consider use of loudhailers, PA systems, etc
- Are the casualties located within a building or underground? A release within a building or underground may lead to higher concentration levels, and the vapour may be slower to disperse
• If no living casualties are visible from outside, the IC may consider a deliberate reconnaissance by deploying teams into the potentially contaminated area of a structure for a maximum of 15 minutes to establish if there are any living casualties. Where possible, view the potentially contaminated area through a closed window, doorway or other reasonably safe location to gather casualty information

• ICs should also consider the use of CCTV if available and any other means to establish the presence of live casualties, prior to committing a reconnaissance team

• Estimate number of casualties? Minimum number of rescuers to achieve the task should be deployed

• Signs and symptoms? Traumatic injuries? Entrapment? Mental state?

• Communicate casualty symptomology to Health responders and or HMEPO’s as soon as reasonably practicable, as this may inform the identification of the substance involved

• Estimate how long they have been exposed to the chemical agent(s). This may assist in assessing the toxicity of the agent, and / or the level of concentration. For example, where it can be established that casualties have been exposed to a contaminant for 15 minutes or more and are still conscious and breathing, this may indicate a lower level of toxicity or a low level of concentration

**SAFETY NOTE:** If no living casualties are seen, located or suspected, responders should withdraw to a safe distance and develop a safe system of work outside the perceived hazard area, awaiting specialist responders before any entry into the ‘hot zone’.

**Deployment Plan**

**Deliberate Reconnaissance**

• Conduct deliberate reconnaissance to determine if there are saveable lives, if casualties are not in line of sight or an informed decision is not possible from a safe location

• In this instance, where it is not possible to observe casualty symptomology to inform the JDHA, but a reasonable suspicion that live casualties are in the area, limit potential exposure time to a maximum of 15 minutes. Structural firekit and SCBA provides sufficient protection in an unknown nerve agent environment to search for saveable lives

• The deliberate reconnaissance team should receive a specific task briefing prior to deployment to include; hazards, objectives and the parameters within which they should work. They must also be made aware of the evacuation signal and emergency procedures prior to entering the hazard area

• Emergency decontamination procedures should be established prior to the team’s entry in the hazard area

• Personnel who have undertaken reconnaissance should not be subsequently used for rescue operations
Rescue

- Minimum crews of two personnel; rigged in a minimum of structural firekit and SCBA, where available crews should also wear nitrile type gloves (as per Road Traffic Collision protocols) beneath their fire gloves.
- Limit deployment time to a maximum of 30 minutes
- Responders should approach from an upwind direction
- Vapours will dissipate and disperse in open air environments
- Each SCBA team should undertake only one rescue, to limit possible exposure
- Personnel should avoid direct contact with potential contaminants in liquid or solid form
- If casualties are displaying signs of exposure to caustic substances (e.g. pain, itching, redness), personnel should minimise contact with all surfaces
- Personnel should be deployed for the absolute minimum period of time, particularly where the contaminant appears to be a vapour that acts via dermal exposure
- Note that when a chemical agent is released in a building, differing concentrations may be apparent in rooms and corridors; casualties should be removed through doors or windows that lead directly to open air
- Remember that the chemical agent released is likely to be heavier than air. When evacuating upper floors, consider removing casualties through upper floor windows or by the roof, using ladders or aerial ladder platforms
- Where casualties are entrapped and cannot be released immediately, consideration should be given to providing some form of respiratory protection. Rescuers should not exceed the 30 minute exposure limit in order to continue with a protracted extrication but should hand over to another team or await the arrival of a team in a higher level of protection

Responder Decontamination

- Unless delay would compromise life saving activities, set up a decontamination area before committing personnel
- Whenever possible, a Hazmat Officer should be directed to supervise the decontamination area and the safe undressing procedure
- Ensure decontamination area is located in a safe area, free from contamination.
- Consider the dignity and welfare issues for personnel
- Responders exiting the hazard area should be directed to disrobe from their PPE and clothing using the safe undressing procedure detailed below:
Safe Undressing Procedure (SUP)

A team of three comprising a SUP Director (Minimum rank – Crew Manager) and 2 SUP Operatives is required to assist with the safe undressing of wearers who have committed to the hot and warm zone and may potentially be contaminated.

The minimum level of PPE for SUP Operatives is firekit, self contained breathing apparatus, and nitrile gloves, but GTS or PRPS should be used if available.

The SUP area must be set up in a safe area on the boundary of the warm / cold zones, and be clearly identified.

The SUP Director must utilise the procedure detailed below by reading out the steps in a chronological order, ensuring that each step is carried out quickly and efficiently.

**SUP Operative 1** If the wearer is rigged in BA; remove the BA set from the wearers shoulders while maintaining the facemask position. Continue to support the weight of the BA set while the wearer is disrobed.

**SUP Operative 2** Remove fire gloves and fire-helmet. Place clear of wearer.

**SUP Operative 2** Unfasten the fire tunic and ease off shoulders. Grasp outer cuff to enable wearer to remove arm. Repeat for other arm. Take care not to allow outside of fire tunic to contact undergarments. Place fire tunic clear of wearer.

**SUP Operative 2** Pull fire-hood over head and leave with BA Set.

**Support staff** Provide dis-robe pack or alternative clothing.

**SUP Operative 2** Roll down over-trousers to boot level, hold each boot in turn as wearer removes feet from boots.

**Wearer** Step out of each boot in turn and on to the salvage sheet or footwear if available.

**SUP Operative 2** Remove wearer’s facemask and re-set first breath button. Shut Down air supply.

**Wearer** Move away from SUP area and dis-robe using the pack provided.

Where necessary or in the absence of advice from Hazmat Officer or SA, wearers should then be showered using hose reel.

Wearers should then dry themselves and dress using the re-robe packs provided or other alternative clothing

**SUP Operative 1** Remove all fire kit and BA set from the SUP area, ensuring that as little contact with the SUP Operative is made as possible.

**SUP Director** Ensure that ensure that BA sets, helmet, fire-coat, gloves, boots and leggings are double bagged and sealed with cable ties. Emergency decon gloves should be removed, double bagged and sealed.

An SUP Operative in fire kit and SCBA suspected of cross contamination should be decontaminated as above.

Where GTS or PRPS are available, disrobing assistants rigged in this level of PPE can assist with
the disrobing process. Disrobing assistants rigged in GTS or PRPS should undergo a standard or emergency wet decontamination process, following their wear. In extremis, disrobe assistants should also wear SCBA and Firekit, where available, wearing rubber gloves / gauntlets rather than standard fire gloves and nitrile type gloves.

Responders who have completed the safe undressing procedure should be directed to the Ambulance Service for monitoring and / or medical care.

**Interim Decontamination**

The use of standard FRS frontline equipment to provide a planned and structured decontamination process prior to the availability of purpose designed decontamination equipment.

Whilst dry decontamination should be the default option, the FRS Incident Commander, in the absence of the Ambulance Service, may decide to establish interim decontamination.

Consideration should be given to the benefits of establishing interim decontamination balanced against the risks to people and the environment. In all circumstances, primacy should be given to life saving actions.

When considering establishing an interim decontamination provision, the following questions should be asked:

- Is there a disrobe and re-robe provision?
- Is warm water available? What are the risks of hypothermia?
- Can the waste water be contained or disposed of safely?
- Are there any special modesty concerns for the casualties?
- Will the frontline FRS equipment become contaminated?

There is currently no national standard for interim decontamination, as each FRS has established its own individual methods. However, interim decontamination has the advantage of being a more structured and controlled method than improvised decontamination.

The length of spraying time will depend on the circumstances of the contamination, but it should be kept as short as possible to minimise discomfort and the dangers of hypothermia. Those being decontaminated should be asked to assist in the process by turning their bodies and rubbing their skin to achieve maximum effect. Soap or detergent should be provided, if readily available.

Immediately following interim decontamination, the opportunity should be provided to shelter, dry and dress in clean clothes.

People who have undergone interim decontamination must be assessed by Health responders to determine whether further decontamination is appropriate. They should only leave the scene after their full details have been noted by the Police. This is essential for the purposes of both the Casualty Bureau and subsequent witness enquiries. Contaminated clothing and belongings should be retained in the care of the Police for possible evidential considerations.
Contaminated run-off / water

Improvised and Interim decontamination may result in contaminated waste water. At this stage it is likely that there will be limited or no capability to contain water run-off, therefore emergency responders should understand the requirement to limit as much as possible the run-off of contaminated waste water into the water system. This should be a consideration of the ongoing JDHA process. However, any identified immediate requirement to instigate improvised or interim decontamination in order to minimise injury or save life should not be delayed by the risk of contaminated run-off.

The Environment Agency will be able to provide advice on environmental impact, drainage issues, and suitable mitigation measures as soon as practicable upon request, and FRS Control Rooms should have access to this advice.
INITIAL ROLE & RESPONSIBILITY OF AMBULANCE SERVICE

The Ambulance Service will:

- Save life and provide immediate care to patients at the scene of the incident and in transit to hospital
- Alert Hospitals and other relevant Health agencies
- Provide the management of decontamination for people affected by hazardous substances, prior to evacuation from the scene
- Evacuate the injured from the scene in order of medical priority
- Arrange and ensure the most appropriate means of transport for the injured to the receiving hospital
- Provide adequate supplies of patient care equipment to the scene of a major incident
- Transport appropriate medical staff and their equipment to the scene of a major incident
- Alert and coordinate the work of the Voluntary Aid Societies (VAS) and others acting in support of the AS at the incident site
- Provide and maintain communications equipment for medical staff and appropriate Voluntary Aid Society personnel at the scene of a Major Incident
- Assist with the restoration to normality.

To achieve the above, the Ambulance Service will:

1. Start a log - Actions and decisions to be recorded
2. Ambulance Services use the mnemonic METHANE to pass a situation report:

M - Major Incident declared/standby
E - Exact location
T - Type of incident
H - Hazards
A - Access and egress
N - Number of casualties
E - Emergency services required
Other health care services will:

- Have processes in place to identify potential contaminated self presenters
- To carry out the role and responsibilities of a first responder:
  - Provide situation report
  - Disrobe Casualties
  - Carry out appropriate decontamination of casualties

Medical intervention / countermeasures

Health care services across the UK have responsibility to undertake decontamination of live casualties following an incident involving chemical, biological or radiological materials or substances. Decontamination is considered to be a medical intervention because without it, casualties’ health would deteriorate. This function is usually carried out by the Ambulance Service at the scene of an incident. However in a large scale or urgent emergency, health service resources may be supported by the FRS who will take on the function of decontaminating casualties. It is important to note that the health professionals retain primacy for the decontamination of casualties at all times.

The Ambulance Service have overall responsibility for the delivery and coordination of clinical care in the pre-hospital phase of the incident and will therefore set priorities for life-saving interventions.

At the point when clinical care needs to be applied, first responders should revisit their risk assessments to decide how far they are able to proceed. Casualties that are walking and have undergone disrobe and decontamination, and have moved to the cold zone should be clinically triaged and treated. For those unable to walk that are still located in the warm zone, health care staff, including ambulance crews, should make risk informed decisions with their emergency services partners on how or if they should proceed to treat these casualties based on the perceived hazard.

Initial assessment will be in the form of a primary survey followed by life saving clinical interventions for example, control of major haemorrhage, basic airway and severe pain management and nerve agent countermeasures. A triage card should be attached to the casualty recording the results of the assessment.

In the event of any significant delay, casualties should undergo dynamic re-triage.

Clinical care can then be applied. Nerve agent antidote kits (counter measures) may be carried on ambulance vehicles, and they should be used where possible and appropriate to casualty needs.

Access to counter measures should not, however, deter or delay first responders in carrying out life-saving activity.
ANNEX F

INITIAL ROLE & RESPONSIBILITY OF POLICE SERVICE

The Police will:

- Provide an environment which facilitates the life saving response, in full collaboration with the other responding emergency services.
- Jointly initiate the Hazard Assessment process AT SCENE. Individual services will be responsible for undertaking their own risk assessments which will be task dependent and necessitate cross agency communication.
- Co-ordinate scene assessment utilising available resources both at and off scene, and disseminate to all.
- Where possible, and in collaboration with other emergency responders, establish, if appropriate, and maintain cordons to secure the scene.
- Liaise with/share information with other responders with direct responsibilities in the emergency, e.g. local authorities who have to identify and advise on safety of vulnerable groups.
- Assume on scene co-ordination role of the incident.
- Co-ordinate at scene communication to the public, taking advice from other emergency responders.
- Assist in the co-ordination of the movement of casualties to a safer clearing location.
- Direct members of the public not directly involved in the incident to take shelter and / or evacuate as the situation requires, always upon expert advice.
- Assisting the FRS and Ambulance Services with disrobe and decontamination advice to the casualties.
## Glossary of Terms and Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>ALARP</strong></td>
<td>As Low As Reasonably Practicable</td>
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<tr>
<td><strong>Casualty</strong></td>
<td>A person directly involved in or affected by the incident (injured, uninjured, deceased or evacuee)</td>
</tr>
<tr>
<td><strong>Cold zone</strong></td>
<td>An uncontaminated area between the Inner and Outer Cordon</td>
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<tr>
<td><strong>Control measure</strong></td>
<td>This is any measure or method taken to reduce risk (e.g., remove the hazard)</td>
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<tr>
<td><strong>Decontamination</strong></td>
<td>The process of reducing contamination</td>
</tr>
<tr>
<td><strong>Disrobe</strong></td>
<td>The process of safe undressing following the contamination of a casualty – Instructions can be given by all first responders or by the Control Room prior to emergency arrival. The area of disrobe becomes the warm zone</td>
</tr>
<tr>
<td><strong>Dry decontamination - Casualties</strong></td>
<td>Reducing skin contamination without the use of water, using available absorbent materials. This process should be considered the default method of decontamination unless contraindicated by the presence of corrosive or irritant materials which require interim (water) decontamination.</td>
</tr>
<tr>
<td><strong>ECOSA</strong></td>
<td>Emergency Coordination Of Scientific Advice. A mechanism for all emergency services to receive fast and coordinated scientific advice on a CBRN incident.</td>
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<tr>
<td><strong>EOD</strong></td>
<td>Explosive Ordnance Disposal</td>
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<tr>
<td><strong>First Responder</strong></td>
<td>Any member of the emergency services who are likely to be the first operational resource to be deployed to a CBRN incident. The person is unlikely to be trained in specialist CBRN response or have specific CBRN PPE.</td>
</tr>
<tr>
<td><strong>FCP</strong></td>
<td>A forward control point/forward control post dealing directly with activity at the scene and the respective emergency service resources at the scene</td>
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<tr>
<td><strong>Gross contamination</strong></td>
<td>The immediate area of contamination</td>
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<tr>
<td><strong>HART</strong></td>
<td>Hazardous Area Response Team – Ambulance Service</td>
</tr>
<tr>
<td><strong>Hazard</strong></td>
<td>Something with the potential to cause harm</td>
</tr>
<tr>
<td><strong>Hazard Zone</strong></td>
<td>An area that contains hazards to which a risk assessment should be applied in order to determine a suitable inner cordon – encompassing both the hot and warm zones</td>
</tr>
<tr>
<td><strong>Hot zone</strong></td>
<td>This is the contaminated area (or areas) where the initial release occurs or disperses to. It will be the area likely to pose an immediate threat to the health and safety of all those located within it and is the area of greatest risk. (To be entered by responders in appropriate level of PPE only)</td>
</tr>
<tr>
<td><strong>Improvised Decontamination</strong></td>
<td>This is the use of an immediately available method of decontamination prior to the use of specialist resources. (Any first responder/control room or affected person can give instruction and equipment to assist).</td>
</tr>
<tr>
<td><strong>Inner Cordon</strong></td>
<td>The area where potential hazardous activity may be safely conducted and encompasses both the hot and warm zones</td>
</tr>
<tr>
<td><strong>Interim Decontamination</strong></td>
<td>The use of standard equipment to provide a planned and structured decontamination process prior to the availability of purpose designed decontamination equipment – warm zone</td>
</tr>
<tr>
<td><strong>JDHA</strong></td>
<td>Joint Dynamic Hazard Assessment</td>
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<tr>
<td><strong>Mass Decontamination</strong></td>
<td>Is the planned and structured procedure delivered by the Fire and Rescue Service using purpose designed decontamination equipment where there are large numbers of casualties</td>
</tr>
<tr>
<td><strong>On Scene Commander</strong></td>
<td>An appointed Police, FRS or Ambulance commander at the scene (i.e. Operations or Incident Commander with the relevant training and experience) who is responsible for undertaking an ongoing joint dynamic hazard assessment and for decision-making on the deployment of their organisation’s resources at that location. On-scene commanders will therefore ensure the emergency services response is effectively co-ordinated at scene.</td>
</tr>
<tr>
<td><strong>Outer Cordon</strong></td>
<td>Designates the controlled area into which unauthorised access is not permitted. It encompasses the Inner Cordon and the hot, warm and cold zones.</td>
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<tr>
<td><strong>PPE</strong></td>
<td>Personal Protective Equipment</td>
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<tr>
<td><strong>Re-robe</strong></td>
<td>The process of dressing in clean (uncontaminated) clothes, or the capes provided in the FRS Disrobe packs.</td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>This is a measure of the likelihood of harm from a particular hazard occurring and the severity of the consequences.</td>
</tr>
<tr>
<td><strong>Risk Assessment</strong></td>
<td>This is a measure of the likelihood of harm from a particular hazard occurring and the severity of the consequences.</td>
</tr>
<tr>
<td><strong>RPE</strong></td>
<td>Respiratory Protective Equipment</td>
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<tr>
<td><strong>RVP</strong></td>
<td>Rendezvous point. For a CBRN incident, this should be located upwind and if possible, uphill of the hot zone.</td>
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<tr>
<td><strong>SCBA</strong></td>
<td>Self Contained Breathing Apparatus</td>
</tr>
<tr>
<td><strong>Snatch Rescue</strong></td>
<td>A tactical option open to FRS, focussed on the immediate extrication of a casualty unable to walk to a safer area to undergo disrobe and decontamination.</td>
</tr>
<tr>
<td><strong>SORT</strong></td>
<td>Specialist Operations Response Team (Ambulance)</td>
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<tr>
<td><strong>STEP 1-2-3 Plus</strong></td>
<td>Safety Triggers for Emergency Personnel Plus.</td>
</tr>
<tr>
<td><strong>Symptomology</strong></td>
<td>The signs and symptoms displayed by casualties</td>
</tr>
<tr>
<td><strong>Triage</strong></td>
<td>A dynamic method by which people are “sieved and sorted” in order of medical priority.</td>
</tr>
<tr>
<td><strong>Warm zone</strong></td>
<td>An area uncontaminated by the initial release, which becomes contaminated by the movement of people or vehicles. To be entered by responders in appropriate level of PPE only.</td>
</tr>
<tr>
<td><strong>Wet decontamination</strong></td>
<td>Reducing skin contamination by the use of water</td>
</tr>
</tbody>
</table>
Bibliography

Civil Contingencies Act 2004 (CCA). The Act delivers a single framework for civil protection in the United Kingdom. The Act is separated into two substantive parts: local arrangements for civil protection (Part 1) and emergency powers (Part 2)

Emergency Preparedness (HMG 2005) - Statutory guidance which supports Part 1 of the Act and contains advice for practitioners on the pre-emergency phase, with generic material on key frameworks like the Civil Contingencies Act and disciplines like Risk Assessment and Business Continuity. It also contains details of the UK Government Capabilities Programme and a section on Resilient Telecommunications

Emergency Response & Recovery (HMG 2010) - non-statutory guidance which supports Part 1 of the Act and contains advice for practitioners on the post-emergency phase

Home Office Counter Terrorism Contingency Planning Guidance Manual (Home Office 2011) Restricted & Confidential

Preparing Scotland: Scottish Guidance on Preparing for Emergencies (The Scottish Govt. 2007)


Guidance to Local Authorities on the Release of CBRN substances or material (Home Office 2003)

A Guide to Emergency Planning Arrangements in Northern Ireland (Office of the First and Deputy First Minister – September 2011)

The Northern Ireland Civil Contingencies Framework (Office of the First and Deputy First Minister – September 2011)

ORCHIDS – www.orchidsproject.eu

Guidance for the United Kingdom Emergency Services on Decontamination of People Exposed to Hazardous Chemical, Biological or Radiological Substances – Home Office – 2013


FRS Response to hazardous materials - Operational Guidance 2012

FRS Response to CBRN(E) Events – Operational Guidance Document 2012

FRS Response to CBRN(E) Events – Strategic Guidance Document 2011 (Restricted)


FRS DCOL 4/89 and 1/92

JRCALC / UK Ambulance Services Clinical Practice Guidelines 2013

National Decision Model (ACPO January 2012) – Joint Decision Making Model (JESIP draft 2013)