



Strategic National Guidance

The decontamination of buildings, infrastructure and open environment exposed to chemical, biological, radiological substances or nuclear materials

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Strategic National Guidance

The decontamination of buildings, infrastructure and open environment exposed to chemical, biological, radiological substances or nuclear (CBRN) materials

This guide has been produced for those in the public and private sector responsible for contingency planning

Produced by the UK Government Decontamination Service, part of Defra, on behalf of:
The Cabinet Office
Department for Communities and Local Government
Department for Environment, Food and Rural Affairs
The Home Office
The Northern Ireland Executive
The Scottish Government
The Welsh Government

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Executive Summary

This guide has been produced for those in the public and private sector responsible for contingency planning. It gives information on the decontamination and remediation that may be required following a deliberate chemical, biological, radiological or nuclear (CBRN) incident or major hazardous materials (HazMat) release of the same in the UK as outlined below.

An incident, whether deliberate or accidental, involving CBRN materials can potentially lead to harm to the public's health, loss of life, contamination of the built and open environment, disruption of society and consequential damage to the UK economy.

It is therefore important that plans are in place to minimise the effects of such an event and to plan for recovery following this type of incident.

This guidance covers key elements in the decontamination process following an incident; from developing the initial recovery strategy through to managing waste and returning things to normal.

The principal roles and responsibilities of key organisations have been identified and listed with planning and precautionary measures highlighted to promote better preparedness.

In view of the different types of potential incidents and the variety of buildings, environments and infrastructure that could be affected, the guidance in this document is necessarily generic. It provides a starting point for the development of more detailed contingency plans to deal with specific incidents. This document also describes the current legal powers available to local authorities (LAs) in the event of such an incident.

The guidance is part of sensible contingency planning and does not mean that there is an increased risk of a terrorist attack using CBRN materials.

This guide is available only in Portable Document Format (PDF).

Introduction

1. This guide has been produced to improve contingency planning to deal with decontamination and remediation following a deliberate CBRN or major HazMat release. There has never been a deliberate CBRN attack in the UK; however, a number of HazMat incidents have occurred. It is therefore sensible to be ready to handle contamination from these materials, whether the release is accidental or deliberate.
2. The focus of this guide is on the contamination caused by the deliberate release of CBRN material. However, many of the principles apply equally to HazMat contamination resulting from spillages or leakages, contamination from overseas incidents or outbreaks of disease.
3. This guidance deals principally with events after the point at which a CBRN incident has been brought under control by emergency responders. However, it is important to stress an incident of this nature would be classified as a major crime and as such access to begin the recovery and remediation process would be on hold until the police have finished with the crime scene. All decisions and actions taken during the incident phase should be designed to limit the spread of contamination and planning for decontamination and waste disposal are considered from the outset.
4. This guidance is intended to provide a basis for the development of contingency plans by organisations in the public and private sector responsible for buildings, infrastructure, transport and the open environment. These plans need to take into account the possible contaminants and the diverse characteristics of the buildings, infrastructure and the open environment that could potentially be affected.
5. Public Health England (PHE) published the UK Recovery Handbook for Radiation Incidents in 2015, the UK Recovery Handbook for Chemical Incidents in 2013 and the UK Recovery Handbook for Biological Incidents in 2015. These handbooks apply to areas or environments that have been contaminated by accidental or deliberate releases of CBRN substances. These documents and others produced by government departments and the devolved administrations are listed in [Appendix H](#). This guide does not repeat the information set out in those documents.
6. The possibility of exposure to CBRN should be a key component of business continuity planning (BCP) in order to maximise resilience, safeguard life and property, and minimise operational disruption. Those responsible for buildings should also consider taking steps to prevent contamination arising in the first place and to minimise the impact of any releases that do occur.

7. Basic advice on contingency planning and precautionary measures is given in this guide. Further guidance can be found on the Centre for the Protection of National Infrastructure¹ (CPNI) and PHE websites. Cabinet Office (CO) in partnership with the Business Continuity Institute (BCI) and the Emergency Planning Society (EPS) published “Business Continuity for Dummies”² in September 2012 to assist businesses in preparing for and dealing with disruptions.
8. This strategic guidance covers England, Wales, Scotland and Northern Ireland. The devolved administrations have been involved in the production of this guide. Arrangements in the devolved administrations are covered from [paragraphs 86 to 106](#).
9. The guidance in this document will be kept under review by the UK Government Decontamination Service (GDS) which is part of the Department of Environment, Food and Rural Affairs (Defra). This process will take account of developments in policy and practice (including any changes in legislation) the outcome of exercises and experiences on the ground, and any feedback received. This edition of the guidance reflects the legislative framework current at the time of publication.
10. A glossary of the terms used in this guidance is available in [Appendix F](#).

¹ www.cpni.gov.uk

² Business Continuity for Dummies – ISBN 978-1-118-326831

Chemical, biological, radiological and nuclear contamination

11. The scale and nature of any CBRN contamination will vary and as such require a variety of responses, ranging from the relatively simple to the more complex.

Deliberate releases

12. Contamination may result from:
 - deliberate release and dispersion of chemicals, biological or radiological substances
 - deliberate use of a nuclear weapon, improvised nuclear devices, or an attack on a nuclear facility

Accidental releases (Major HazMat)

13. Although stringent safety precautions are required to be in place, contamination may also result from accidental releases of CBRN materials. Potential sources of contamination include:
 - industrial or agricultural sites handling or storing hazardous substances or materials
 - laboratories
 - hospitals
 - nuclear sites (at home and abroad)
 - nuclear materials in transit
 - materials in transit

This is not an exhaustive list.

Further information

14. Further background information on CBRN materials is available in [Appendix A](#).

Objectives of recovery

15. The aim of the recovery process is to rebuild, restore and rehabilitate the community following an emergency. Additionally, in the event of an incident leading to contamination, the key objectives for decontaminating buildings, infrastructure and the open environment are:

- ensuring that risks to people and to the environment are kept to a minimum;
- facilitating criminal and other investigations;
- ensuring that further contamination is avoided or kept to a minimum;
- considering what is an acceptable level of remaining residual hazard to declare the area “clean” and then setting target levels for the decontamination process accordingly;
- ensuring, where possible, the preservation of personal items of high personal value to the owner;
- ensuring that the most appropriate method of decontamination or remediation is used;
- returning buildings, infrastructure and the open environment to normality as soon as practicable;
- ensuring that waste is legally and safely disposed of;
- ensuring the co-operation and co-ordination of all site owners into the decontamination strategy and process, including agreement of payment and cost accountability;
- ensuring that effective and co-ordinated communication messages are given to the public, recognising the need during recovery for two-way communication and engagement.

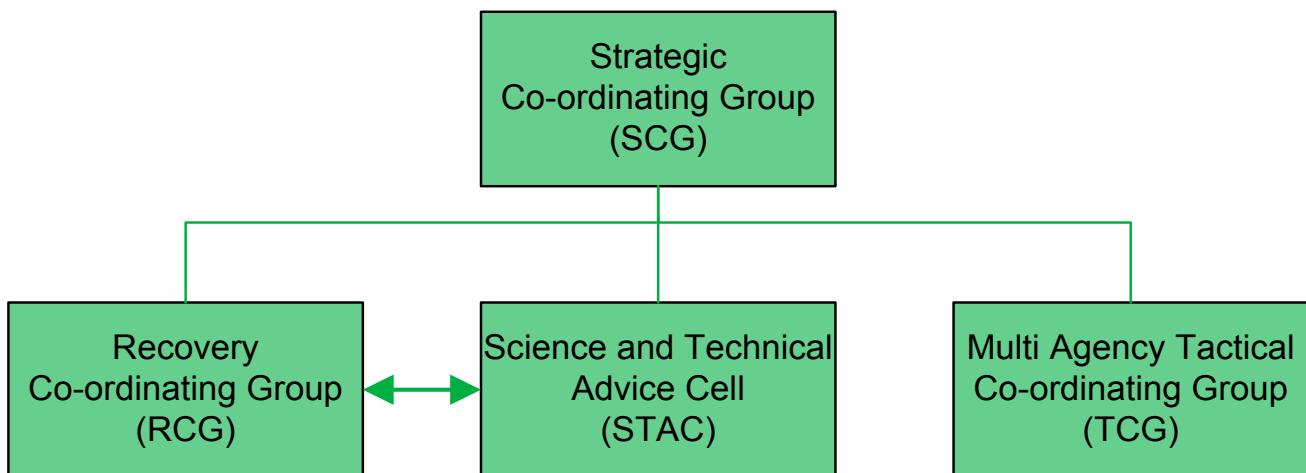
Co-ordinating the decontamination process

16. The immediate multi-agency response to the response or emergency phase of an incident will be co-ordinated by the police. Irrespective of the nature and scale of the release, there is a need to consider recovery-related issues from the outset of the incident response.
17. Local co-ordination will be handled through a multi-agency Strategic Co-ordinating Group (SCG) set up to take strategic decisions in relation to the response to the incident and providing information to the public and media. The SCG, which will normally comprise of senior representatives from the key organisations involved, will initially be chaired by the police. The SCG will not be in operation once the handover to the recovery phase is complete. The transition from response stage to recovery, and so the change in lead authority, will be determined on a case-by-case basis.
18. The LAs in England, Wales and Scotland will normally be responsible for co-ordinating the recovery phase (usually as chair of the Recovery Co-ordinating Group (RCG))³. LA planning is carried out in close co-operation with the emergency services, utilities, other industrial and commercial organisations, government departments and agencies.
19. The recovery co-ordination arrangements in Northern Ireland are different and are detailed from [paragraphs 96 to 106](#).
20. Further details about planning and recovery management are set out in the CO's National Recovery Guidance (NRG)⁴, in the Preparing Scotland⁵ section of the Scottish Government website and in "The Release of CBRN Substances or Material: Guidance for LAs"⁶. Decontamination work will normally take place in the recovery phase however the immediate work of containing and evaluating the extent of the contamination is likely to begin in the response phase.

³ There are two types of LA structure in England: single-tier and two-tier. Two-tier systems divide responsibility for services between county councils and district councils. In single-tier areas, one authority is responsible for all LA functions. Wales has a single tier structure of local government with 22 unitary authorities. More detail on services provided at each level can be found here: www.gov.uk/understand-how-your-council-works/typesofcouncil

⁴ www.gov.uk/guidance/national-recovery-guidance
⁵ www.readyscotland.org/readyscotland.org/ready-government/preparing-scotland/
⁶ www.gov.uk/government/publications/the-release-of-chemical-biological-radiological-or-nuclear-cbrn-substances-or-material-guidance-for-local-authorities

21. Where an incident affects one building or more, significant parts of infrastructure or the open environment, the SCG may consider setting up subgroups. During the response phase of an incident the RCG should be set up to report to the SCG, so that recovery issues can be considered in detail. The RCG can set priorities for the recovery phase and for the decontamination work, and/or co-ordinate the work of specialist decontamination contractors. The Science and Technical Advice Cell (STAC)⁷ will provide strategic advice, co-ordination and assessment of health, and scientific and environmental protection issues to support the SCG and RCG. The chairs of the RCG and the STAC would normally attend, advise and report back to the SCG. The basic structure for command and control is set out in the following diagram:
22. When an incident requires national strategic co-ordination and support, the UK Government's dedicated crisis management facilities at the Cabinet Office Briefing Rooms (COBR) will be used. This group will be supported by the Scientific Advisory Group for Emergencies (SAGE)⁸. The SAGE group of scientific and technical experts is used to provide a common source of advice to inform central government's decisions on response and recovery. The document "Scientific Advisory Group for Emergencies (SAGE)"⁹ was published in October 2012 and provides guidance on the role of SAGE in an emergency.
23. GDS are able to give advice and guidance on the decontamination of buildings, infrastructure, transport assets and the open environment. As such, it is highly recommended that they be invited to attend these multi agency groups. The team can also facilitate access to the GDS Framework of specialist decontamination service providers. Further details on accessing CBRN remediation services are set out in [Appendix C](#).
24. All contractors, whether drawn from the GDS Framework or engaged independently, will work as required within the command and control arrangements established for the incident.



⁷ www.gov.uk/government/publications/provision-of-scientific-and-technical-advice-in-the-strategic-co-ordination-centre-guidance-to-local-responders

⁸ www.gov.uk/government/groups/scientific-advisory-group-for-emergencies-sage

⁹ www.gov.uk/government/publications/scientific-advisory-group-for-emergencies-sage

Meeting the costs of decontamination

25. The cost of the clean-up operation will depend on the nature and extent of the contamination, decisions around tolerability of the residual hazard¹⁰ and the decontamination/waste disposal approach selected. In a medium or large-scale incident costs could be significant and the affordability of the recovery operation will need to be considered.
26. It is important for funding streams to be identified as early as possible. Work to stabilise and contain the contaminated area and define the nature and extent of the contamination should be completed as soon as possible. It will then be possible to define the recovery priorities, consider the affordability of different recovery options and make the final decisions on the funding required.
27. In the case of an accidental release, the costs would normally fall on the party responsible for the release under the ‘polluter pays’ principle, whereby those responsible for causing the pollution are responsible for covering the costs of the associated clean-up and restoration.
28. In the case of a deliberate CBRN attack the responsibility for meeting the costs would in the first instance fall to building owners or occupiers; as it would for dealing with other potentially serious incidents such as fire or flooding. In the public sector, central and local government largely bear their own risk. LAs in Great Britain are expected to make contingency arrangements in respect of either reserves or insurance for their own buildings, public spaces and amenities. They will be expected to make arrangements to bear the cost of response and recovery in all but the most exceptional¹¹ emergencies. Similarly, owners and occupiers of commercial property should consider reserves or additional specialist insurance to provide cover in the event of a CBRN attack, having regard to the risk of their property being affected by contamination, regardless of its origin.
29. Household policies may include some cover for damage caused by terrorist activity; however, in general these policies specifically exclude damage or loss caused by CBRN events.
30. The Pool Re Scheme provides reinsurance to original insurers for commercial property in the UK excluding Northern Ireland, Channel Islands and the Isle of Man and was set up by the insurance industry in partnership with the UK Government in 1993. It is designed to ensure that insurance cover can continue to be offered by insurers for damage caused by acts of terrorism to commercial property. Cover is provided, in return for an additional premium, as an optional add-on to commercial property insurance through insurers participating in the Pool Re scheme. Exclusions include war and related risks, damage to computer systems caused by viruses, hacking or similar acts, marine risks and motor vehicles.

¹⁰ A term used when determining what levels of exposure may be considered acceptable for members of the public to receive subsequent to a terrorist release of hazardous chemical materials.

¹¹ Emergency Response and Recovery (www.gov.uk/guidance/emergency-response-and-recovery p101) defines exceptional circumstances as major emergencies with the sort of impact described as Significant (Level 4) or Catastrophic (Level 5) as set out in the Local Risk Assessment Guidance.

- Pool Re reinsurance cover includes CBRN cover and associated clean up costs (where they are caused by terrorist events, non terrorism events will fall outside the scope of the Pool Re scheme).
- Cover is available under the Pool Re scheme for residential property in commercial ownership eg blocks of flats, and for government owned property.
31. There are also some specialist insurers offering terrorism insurance in the Lloyd's market. Policy coverage will vary considerably. The insurers in this market are likely to be focussed on large and multinational businesses and large property owners.
32. Commercial building owners and their insurers need to be involved early in the recovery process. Decisions around priorities and decontamination options will affect how quickly and the extent to which an area can return to normality, and how much the recovery process will cost. The Association of British Insurers (ABI), Local Government Associations (LGA) throughout the UK, the National Police Chiefs' Council (NPCC) and others have a protocol in place which would allow insurance representatives to be involved in Strategic (formally known as Gold command) meetings and facilitate access to cordoned off areas.
33. In the event of an exceptional emergency, individual government departments (dependant on the nature and location of the recovery effort this could be the Department for Transport (DfT), the Department for Communities and Local Government (DCLG), Defra, the Department for Education (DfE) or the devolved administrations) may, at ministerial discretion, consider providing financial support for various aspects of the recovery. The central government's concept of operations (CONOPS) sets out the UK arrangements for responding to and recovering from emergencies, see [Appendix H](#).
34. Central government has endorsed the principle that for the majority of emergencies requiring action at the national level there will be a pre-nominated Lead Government Department (LGD). This department will be responsible for both planning for and activation of the central government response and recovery (depending on the nature and location of the emergency it may be different departments taking responsibility for the response and recovery phases). The departmental lead for recovery is responsible for co-ordinating the cross-government recovery effort. If the recovery funding principles are activated, the costs of funding recovery in a particular area will fall to the department responsible for that area, irrespective of which department is designated the LGD for recovery in that instance. The devolved administrations will establish the LGD for recovery in their areas.

Decontamination: planning and methods

35. The precise approach to remediation of any contamination will need to be decided on an incident and site specific basis, considering the risks posed. Expert advice and a range of factors will need to be taken into account.

These include:

- the nature and extent of the contamination;
- the characteristics of the building, infrastructure, environment, systems, equipment and other contents;
- the contaminant involved;
- the types of surfaces affected;
- clean up levels and the objectives of the decontamination plan;
- the intended future use of the property;
- the regeneration opportunities;
- waste management requirements.

36. Pre-planning for the possibility of decontamination will provide the starting point for the response to any particular incident. This planning should form part of a robust BCP and might include consideration of issues such as decontamination options, management of contaminated waste and prioritisation of items to be retained.¹²

¹² www.gov.uk/government/publications/precautions-to-minimise-effects-of-a-chemical-biological-radiological-or-nuclear-event-on-buildings-and-infrastructure

Decontamination: the process

37. This part of the guidance outlines the main steps for planning the decontamination process, carrying it out and declaring decontaminated zones clear for reoccupation. It includes disposal of contaminated materials as well as other issues that need to be considered during the decontamination process.
38. The precise process and timetable will vary according to the nature and scale of the incident. In some cases, decontamination may not be necessary, for example if the agent is not viable or persistent, or is not present in sufficient quantity to cause harm or damage. In more serious or complex incidents the process could be lengthy, running into weeks and months and potentially years for large scale incidents.
39. The specific objectives for decontamination will depend on the nature of the incident, the risks involved and whether or not the buildings are to be reoccupied or otherwise reused. In some circumstances sealing the buildings or demolishing them may be the most appropriate course of action to protect public health. The special character or significance of a building will be an important factor. If a building is to be retained, the objective will be to ensure that decontamination is carried out safely and effectively with a view to allowing reoccupation of the building as early as is practicable.
40. The key stages in the decontamination process are:
 - sampling and monitoring to determine the extent of the contamination;
 - prioritising the appropriate resources and equipment for decontamination;
 - decontamination of the built and open environment, transport assets and other items;
 - sampling and monitoring to assess the effectiveness of decontamination for reoccupation or reuse;
 - managing contaminated waste (throughout).
41. A summary checklist of issues to be considered in planning the decontamination process can be found in [Appendix C](#) and a flowchart outlining the process is in [Appendix D](#).

Determining the decontamination requirement and priorities

42. Depending on the nature of the incident, the emergency services are likely to be supported in their initial response by one or more specialist agencies, such as PHE, Health Protection Scotland (HPS), Public Health Wales (PHW), Public Health Agency (PHA) in Northern Ireland (NI), the Defence Science and Technology Laboratory (Dstl) or the Atomic Weapons Establishment (AWE).
43. If persistent contamination is suspected, a detailed characterisation sampling survey will be required as part of the recovery process. The extent of this would need to be determined on a case-by-case basis, taking into account the nature of the affected area (types of building, roads, parkland etc) and information about the nature of the hazardous material thought to have been released. Dependant on the size and scale of the incident this capability can be provided by the private sector through the GDS Framework of Specialist Providers ([Appendix B](#)).
44. Characterisation sampling may need to take place before the crime scene has been released by the Police Service. The Police Service should be consulted on access to the site for characterisation sampling and any agreements should be in line with the agreed forensic strategy. This can only be determined by the circumstances of the incident. If characterisation sampling and crime scene investigation proceed in parallel, great care must be taken to preserve any evidence that might be needed for subsequent prosecution and/or inquiries. Consideration should be given to the safe transport, storage and eventual disposal of samples.
45. The outcome of site evaluation and comprehensive sampling will inform decisions about the decontamination of the building, infrastructure, open environment, equipment, furniture and other contents. Advice can be sought from contractors engaged by, or on behalf of, the building owner/occupier which would feed into a decontamination strategy. This will take into account advice from specialist agencies and other key organisations. The plan will form the basis of a detailed specification for the decontamination work which is to be carried out. It is important that all key organisations are agreed from the outset on the work to be done, the specific clean-up objectives, the methods involved and how the outcome will be assessed. This should include agreement on the process for sampling and analysis intended to validate the contractor's work and on the laboratories involved.
46. The decontamination strategy into which the contractor's advice will feed needs to reflect the specifics of the incident. These will include consideration of the nature and extent of contamination and any structural damage, the characteristics of the building, infrastructure, open environment, systems and contents (including any particular considerations where listed or otherwise historic buildings and/or valuable contents are involved), as well as the decontamination methods appropriate in the circumstances of the case. It should also set the target levels for decontamination after full consideration of the acceptability of residual hazards and take into account the risks to those carrying out the decontamination. Detailed records of any contaminants and their treatment should be kept by both the contractor and the building's owner/occupier.

47. In developing the decontamination strategy the advice of the relevant organisations should be sought, and any necessary clearances or approvals obtained. These organisations include:
- Police, Fire and Rescue Service (FRS) and Ambulance Service for the handover of the site and any assets of the emergency services that may need decontamination or safe disposal;
 - PHE, HPS, PHW and the PHA in NI on the risks to public health;
 - Health and Safety Executive (HSE), and Health and Safety Executive Northern Ireland (HSENI) on health and safety issues;
 - LA for site security, development control, building control (for structural and building material aspects) and health and safety, where that falls to the authority rather than the HSE;
 - GDS team for advice and guidance on decontamination and related subjects.
 - in Northern Ireland, scientific advice may also be available from the Agri-Food and Biosciences Institute (AFBI);
 - Environment Agency (EA) in England, Natural Resources Wales (NRW), the Scottish Environment Protection Agency (SEPA), and the Northern Ireland Environment Agency (NIEA) for environmental and waste management aspects;
 - Food Standards Agency (FSA) for advice on agricultural land and allotments, where contamination of food is possible;
 - water and sewerage companies, where water is used in the decontamination process and disposal via the sewerage system is an option;
 - English Heritage, Historic Environment Scotland, Cadw in Wales, and NIEA for consultation as appropriate on listed/ historic buildings;
 - Department for Culture, Media and Sport in England (DCMS), Historic Environment Scotland, Cadw in Wales and/or NIEA should be consulted when contamination of ancient monuments is involved.
48. Consideration should be given to the prior presence of contaminants (such as asbestos or lead) within the fabric of the building, particularly if it has been damaged or if the decontamination process would involve disturbing it, for example by drilling of walls. Consideration should also be given to other potentially hazardous materials which may be present by virtue of being stored/used within the building. The relative merits of on-site or off-site decontamination for movable items should also be considered as should the cost-effectiveness of their decontamination against disposal and/or replacement. On-site decontamination or destruction may reduce the risks inherent in the transportation of contaminated material but this may not be possible in town or city centre locations where the size of the site needs to be kept to a minimum.

49. In planning the decontamination operation, the surroundings of the contaminated buildings or infrastructure should be considered. These may themselves be of particular historic, landscape, ecological or archaeological value.
50. Temporary buildings may be required to accommodate contractors and others as well as providing ancillary facilities and infrastructure. These may include providing access to power and water, storage of equipment and materials, storage of waste pending disposal and facilities for decontaminating people engaged in the work.
51. Where multiple sites are contaminated, it will be necessary to prioritise the decontamination work between premises. This would normally be determined by the SCG or the RCG. All interested parties, including building owners/occupiers and contractors, should be consulted in the process. Any buildings not considered as an immediate priority will still require the contamination to be contained. The continuing effectiveness of containment measures will need to be monitored until the work of decontamination begins. Further advice on setting priorities is contained in [Appendix E](#).
- ensure the continuing health and safety both of the people carrying out the decontamination work and of the wider public;
 - minimise the impact to the environment.

Assessing the effectiveness of decontamination

53. The effectiveness of decontamination needs to be verified by reference to the agreed objectives set out at the outset of work. Verification is likely to involve sampling and analysis by an independent third party. Sampling and analysis is also likely to be carried out on the basis of a protocol, which should be agreed by all the interested parties before the work begins.
54. Confirmation that decontamination has been effective will be given by the SCG or RCG. This will be based on advice from the specialist agencies and the body responsible for health and safety enforcement on the premises concerned, ie HSE, PHE and/or the LA. Similar considerations apply to determining the effectiveness of the decontamination of items off-site.
55. In all cases, if the initial decontamination is not effective in meeting the agreed objectives, the process may need to be repeated until it is successful or another decontamination method may need to be applied. It may also be necessary to revise the original objectives – in discussion with those affected by the decision.

Decontaminating buildings

52. The progress of the work will be carefully monitored by the SCG and/or the RCG. There should be regular progress reports to staff and to the public and neighbouring owners/occupiers. Particular considerations will be to:

Disposal of contaminated waste

- 56. Waste management considerations need to be included in the incident decontamination plan. These include: minimising, segregating, preparing for reuse, recycling, storing, transporting, treatment and disposal. Defra published the CBRN Waste Guidance, managing wastes from a CBRN incident¹³ published on Resilience Direct in January 2017.
- 57. Contaminated debris could be classified as dangerous and subject to the transport of dangerous goods legislation. For more information see the DfT website.¹⁴ If contaminated debris is being stored prior to disposal the EA (or SEPA or NIEA or NRW) should be consulted as permits may be required.
- 58. The decontamination strategy should also address the mitigation of the health and environmental consequences of the decontaminants themselves and the arrangements for managing, transporting and disposing of waste materials. Arrangements for transporting samples should also be considered. Where several contractors are engaged, there will need to be a consistent approach agreed for the removal and disposal of contaminated materials. For further information concerning CBRN waste management see the Defra CBRN Waste Guidance.

13 Available on Resilience Direct via the following path - Planning > Government Departments > UK (all) > DEFRA > CBRN > CBRN policy and response.

14 www.gov.uk/government/organisations/department-for-transport/series/transporting-dangerous-goods

Decontamination: roles and responsibilities of key organisations

59. Limiting the spread of contamination and managing decontamination of property will involve co-ordinated action by a range of organisations, either directly or in support. Further advice on the individual roles outlined here is set out in the CO's NRG.¹⁵ In Scotland these are set out in a suite of documents available from the Preparing Scotland¹⁶ section of the Scottish Government website. Some of the duties mentioned below will begin in the response phase and may continue through the transition into the recovery phase.
60. Key organisations include:
- Police
 - FRS
 - Ambulance Service¹⁷
 - EA/SEPA/NIEA/NRW
 - building owner/occupier
 - LA
 - DCLG and Resilience and Emergencies Division (RED)
 - central government departments and agencies including GDS
 - HSE/HSENI
 - FSA
 - PHE/HPS/PHW/PHA in NI
 - decontamination contractors
 - Armed Forces
 - devolved administrations

Police

61. The police will be responsible for the overall co-ordination of the emergency services' response during the incident phase of an event. This includes chairing the multi-agency SCG if it is required to manage the incident. In responding to the incident the strategic intention is to co-ordinate effective multi-agency activity in order to:
- preserve and protect lives
 - mitigate and minimise the impact of an incident
 - inform the public and maintain public confidence
 - prevent, deter and detect crime
 - assist an early return to normality
62. The police response will not delay or interfere with the actions and priorities of the Ambulance Service and the FRS in relation to the saving of life.
63. The police will be responsible for establishing and chairing multi-agency groups at Tactical (formally Silver) and Operational (formally Bronze) levels as appropriate. The Police Tactical Commander is responsible for developing and co-ordinating the tactical plan in order to achieve the aims of the Police Strategic Commander.
64. Police Operational Commanders are responsible for the implementation of the Tactical Commander's plan by the use of appropriate tactics within their geographical or functional area of responsibility.

¹⁵ www.gov.uk/guidance/national-recovery-guidance

¹⁶ www.readyscotland.org/readyy-government/preparing-scotland/

¹⁷ Police, FRS and Ambulance Service now operate on JESIP

www.jesip.org.uk/home

65. In addition, the police will:

- take initial responsibility for safety management within the inner cordon during the early stages of terrorist incidents;
- until it is determined otherwise, treat the scene as a crime scene;
- where terrorist action is suspected to be the cause of an emergency, the police will take additional measures to protect the scene and assume overall control of the incident. These measures may include establishing cordons to restrict access to and require evacuation from the scene;
- in consultation with other emergency services and specialists establish and maintain cordons at appropriate distances;
- in consultation with the other emergency services, establish inner cordon gateway procedures and provide staff to record details of all police personnel entering the inner cordon;
- ensure that only protected officers are deployed within the inner cordon, following task specific risk assessment and in order to achieve specific operational objectives;
- decide whether or not to seek military assistance;
- establish safe undressing procedures in line with current protocols to ensure that all Police personnel deployed within the inner cordon undergo safe undressing procedures.

FRS

66. The FRS will:

- carry out search and rescue;
- using their specialist Detection, Identification and Monitoring (DIM) capability, assist with the initial identification and containment of contamination and mitigation of the effects of HazMat in consultation with specialist advisors;
- work with the Ambulance Service to provide a mass decontamination service if existing decontamination capacity is exceeded or threatening to be overwhelmed;
- contain any water used for the purpose of decontamination, until it is considered safe to be released;
- make arrangements for ensuring that reasonable steps are taken to prevent or limit serious harm to the environment.

Ambulance Service

67. The Ambulance Service will not normally have a role in the decontamination of buildings. However, either alone or with the assistance of other healthcare providers, the Ambulance Service will:

- in the response phase of the incident, provide the necessary and appropriate medical and decontamination response, including use of the Hazardous Area Response Teams (HART) to provide life saving clinical intervention within the inner cordon if required;

- assume responsibility for casualty decontamination;
- identify if the number of people requiring decontamination exceeds or threatens to overwhelm their existing decontamination capacity. A decision of when to use mass decontamination will be taken by the Ambulance Service in consultation with the Senior Fire Officer and co-ordinating Police Commander;¹⁸
- where safe and appropriate recommend and advise on self decontamination;
- administer, where possible, the necessary treatments and antidotes to mitigate the clinical effects of the contaminant;
- give advice and guidance to those affected by contaminated materials in partnership with PHE/HPS/PHW/PHA NI, the LA's Director of Public health and local healthcare commissioners and providers.
- work with partner organisations to identify feasible remediation options and support the development of a multi-agency recovery strategy;
- advise partners on the management and disposal of contaminated wastes and the treatment of liquid effluents. Where radioactive waste is concerned, standards would be set for storage, labelling and record keeping;
- liaise with the relevant sewerage operator if it is proposed to discharge non-radiological contaminated waste water to the sewerage system;
- ensure that the waste management and environment regulatory roles continue to function appropriately;
- in England, advise Defra and the Department for Business, Energy and Industrial Strategy (BEIS) on any need for a statutory instrument (SI) to exempt radioactive wastes from the permitting required under the Environmental Permitting Regulations 2016 (EPR 2016) and amendments. For incidents in Wales requiring an amendment to the EPR 2016, the Welsh Government should be advised. In Scotland and NI the Scottish Government or the NI Executive should be advised on the need for an Exemption Order under the Radioactive Substances Act 1993 (RSA93)¹⁹.

EA/SEPA/NIEA/NRW

68. They will:

- advise on any actual or potential environmental impacts of the contaminant;
- advise on the environmental aspects of possible decontamination methods, including advice on the relative risks and benefits of particular options and on the location of decontamination facilities;

¹⁸ www.gov.uk/government/publications/strategic-national-guidance-the-decontamination-of-people-exposed-to-cbrn-substances-or-material

¹⁹ Scotland RSA93 amendment www.legislation.gov.uk/ssi/2011/207/contents/made NI RAS93 amendment www.legislation.gov.uk/nisr/2011/290/contents/made

The land/building owner/occupier

69. The focus of this section is on public and commercial owners/occupiers. The LA in England, Wales and Scotland will normally be responsible for co-ordinating the recovery phase. Where a building is occupied by someone other than the owner, the formal division of responsibility between owner and occupier will depend on the terms of the occupation (such as lease) but it is obviously sensible for the two to liaise closely throughout. If responsibilities are not clear in existing leases, it is important that matters are clarified as soon as possible. In new leases, responsibilities should be made clear from the outset.

70. The relative roles and responsibilities of owner and occupier should be reflected in contingency planning arrangements. Particular care should be taken to ensure that there is a consistent and co-ordinated approach in multi-tenanted buildings whether mixed commercial occupancy (such as blocks or shopping centres), or mixed residential and commercial use. In particular, the arrangements will need to make clear who has overall responsibility for the actions set out below.

71. The owner/occupier will be expected to:

- co-operate with the LA or other lead agency to fulfil their responsibility for co-ordinating the recovery phase;
- inform insurers and work with their appointed loss adjusters;
- be responsible for maintaining site security after responsibility has been relinquished by the Police Service;²⁰
- be responsible²¹ for commissioning

contractors to carry out detailed site evaluation (including further sampling) and subsequent decontamination of buildings, systems and contents, and removal of waste.²²

- be responsible for establishing that the building is safe for reoccupation by obtaining verification of the effectiveness of decontamination from the SCG (if necessary, ensuring that further decontamination work is carried out).

LA

72. The LA²³ will:

- lead the recovery phase in most cases and co-ordinate multi-agency support for the decontamination process;
- lead on contaminated waste management planning;
- as necessary assess the structural stability of affected buildings, and if they appear to be dangerous exercise powers under the Building Act 1984 (for England and Wales) and the Building (Scotland) Act 2003.
- advise on the development control implications of any proposed work and supporting infrastructure (for example, temporary buildings and other structures);

²⁰ This could form part of a comprehensive contract with a decontamination contractor – even if the function is sub-contracted.

²¹ In consultation with their insurance company and loss adjustor.

²² In practice, it is expected these would be progressed on the basis of an agreed specification in co-ordination with specialist agencies and other key organisations through co-ordination arrangements.

²³ There are 5 types of local authority in England: county councils, district councils, unitary authorities, metropolitan districts and London boroughs

- organise and manage the decontamination of the affected area and restore the environment to normal use, invoking any existing mutual aid arrangements with neighbouring authorities and contractors as appropriate;
 - manage risks to the health and safety of workers undertaking decontamination of the environment and processing hazardous wastes;
 - under the Health and Social Care Act 2012, be responsible for protecting and improving the health and wellbeing of their residents;
 - consider wider regeneration opportunities;
 - have a vital role in local, public and media communication. Contingency planning is addressed in the Civil Contingencies Act 2004, which includes a duty for LAs to promote business continuity management.
73. District Council powers and roles are more limited in NI and arrangements would be made to address these issues, see [paragraphs 96 to106](#).

DCLG and RED

74. The RED, from the DCLG, co-ordinates government liaison on resilience issues in England. The division works with local organisations to build resilience, support Local Resilience Forums (LRFs) working together, and when appropriate support the response to and recovery from an emergency. This includes assisting with the exchange of information between the SCG and central government through their Government Liaison Officers (GLOs). DCLG published Site Clearance Capability²⁴ in 2016 to assist LRFs.
75. When resources need to be shared across geographical boundaries or in the event of wide ranging or multi area incidents where a consistent and structured approach is required the RED team will help support the liaison with other areas and central government. In such circumstances DCLG may on its own initiative, or at the request of either local responders or the LGD (in consultation with the CO), convene a Response Co-ordinating Group (ResCG) in order to bring together appropriate representatives from a number of SCGs.
76. During the transition from response to recovery the RED team will provide support to the LGDs taking up responsibility for supporting local responders and any RCG to ensure a smooth handover of information, contacts and ongoing actions.

²⁴ www.gov.uk/government/publications/site-clearance-capability

Central government departments and agencies

77. In the event of a CBRN incident in England and Wales, the Home Office (HO) would initially assume LGD responsibility for dealing with the effects of the emergency. The HO would be supported by other departments including Defra. Defra has the responsibility in England for co-ordinating the Government's contribution to the decontamination and recovery phases of CBRN emergencies and for the open environment irrespective of the cause of the incident. At some point, to be determined on a case-by-case basis and once the crisis management phase is concluded, the lead department responsibility would be transferred to Defra.
78. When involved by virtue of the nature or scale of the incident, the Government will also (through the appropriate lead department):
- co-ordinate the activities of departments involved;
 - collect information on the incident and its effects to provide information to the public and media at national level as well as briefing government ministers and informing Parliament;
 - will co-ordinate (through DCLG) the information flows between central and local government using the established response and recovery reporting arrangements. DCLG also leads on support for communities and faith issues;
 - provide technical advice on chemical and biological substances from centres of excellence such as Dstl, PHE and GDS;
 - provide technical advice on radiological substances from other centres of excellence including PHE Centre for Radiation, Chemicals and Environmental Hazards (PHE-CRCE) and the AWE;
 - provide assistance to LA emergency response teams under the provisions of Military Aid to the Civil Authorities (MACA)
 - provide specialist advice and/or additional assistance to local emergency teams.
79. Outside England, consequence management is the responsibility of the respective devolved administration, see Devolved Administrations [paragraphs 86 to 106](#).

GDS

80. GDS, part of Defra, will provide advice and guidance on the decontamination process and facilitate access to the GDS Framework capability and capacity.

HSE/HSENI

81. They will:
- provide specialist advice on the risks to workers and others from contamination of a building and on the measures to decontaminate it;
 - advise on decontamination plans and systems of work proposed;
 - advise on safe systems of work for testing whether decontamination is successful;
 - take any necessary enforcement action.

FSA

82. The FSA will:

- provide advice and information on food safety issues;
- ensure, in conjunction with the EA and other agencies, safe disposal of contaminated food.

- liaise with the local sewerage operator and the environment agencies to protect watercourses, sewage treatment works, and surface and ground waters by intercepting water used in decontamination and directing it to containment areas for appropriate treatment;

PHE/HPS/PHW/PHA

83. They will:

- provide specialist advice and guidance on the public health implications of an incident;
- provide specialist aspects of advice on decontamination options;
- provide specialist advice on sampling and analysis before and after decontamination has been undertaken.

- manage solid hazardous waste streams in an environmentally acceptable and responsible way, minimising risks to the health and safety workers, the public and the environment.

Decontamination contractors

84. Decontamination contractors will:

- safely implement the phased recovery strategy under the direction of the LA/other lead agency;
- provide and operate the equipment necessary for decontamination and remediation;
- train and equip their workforce with suitable personal protective equipment (PPE);

Armed Forces

85. In the event of any incident that exceeds the capability or immediate capacity of the UK civilian response, requests for military support can be made to the Ministry of Defence (MOD) through the provisions of MACA.²⁵

²⁵ For further information - www.gov.uk/government/publications/2015-to-2020-government-policy-military-aid-to-the-civil-authorities-for-activities-in-the-uk/2015-to-2020-government-policy-military-aid-to-the-civil-authorities-for-activities-in-the-uk

Devolved Administrations

Arrangements in Wales

86. The Welsh Government will lead on consequence management and recovery in Wales. The arrangements described in the main sections of this guide apply to both England and Wales. The following paragraphs detail the arrangements in Wales that differ. [Appendix H](#) signposts readers to the Wales Resilience website.
87. The Welsh Government, through the Wales Resilience Forum, works with local organisations to build resilience, supports LRFs and when appropriate, assists the response to and recovery from an emergency.
88. In Wales, the North Wales, South Wales, Dyfed-Powys and Gwent LRF areas all have multi-agency arrangements in place to co-ordinate the response to an emergency. The Pan Wales Response Plan establishes a structure for emergencies which require a wider response or which affect two or more LRF areas. The Welsh Government will ensure effective communications with the central government through its Emergency Co-ordination Centre (Wales) (ECC(W))²⁶.

89. The role of the ECC(W) will be to:
- co-ordinate the gathering and dissemination of information across Wales;
 - ensure an effective flow of communication between local, pan-Wales and UK levels, including the co-ordination of reports to the UK level on the response and recovery effort;
 - brief the Lead Official and Wales Civil Contingencies Committee (WCCC);
 - ensure that the UK input to the response is co-ordinated with the local and pan-Wales efforts;
 - provide media and community relations support through the Welsh Government Communications Division;
 - assist, where required by the SCGs, in the consequence management of the emergency and recovery planning;
 - facilitate mutual aid arrangements within Wales and where necessary, between Wales and the border areas of England;
 - raise to a UK level any issues that cannot be resolved at a local or Welsh level.

²⁶ [www.walesresilience.gov.uk/behindthescenes/walesresilience/
emergencycentrewales](http://www.walesresilience.gov.uk/behindthescenes/walesresilience/emergencycentrewales)

Arrangements in Scotland

90. Resilience in Scotland is based on the doctrine of Integrated Emergency Management (IEM), involving a multi-agency approach and the effective co-ordination of those agencies. Control of operations is exercised at the lowest practical level. As such, local responders' IEM arrangements are the foundation of dealing with emergencies. The coordination and support of local activity, however, is at the highest level required.
91. In the event of a CBRN incident in Scotland, it is likely that the Scottish Government's Resilience Room (SGoRR)²⁷ will be activated. The precise role of SGoRR will vary depending on the nature of the emergency. In broad terms, SGoRR will:
- provide strategic direction for Scotland;
 - co-ordinate and support the activity of Scottish Government Directorates;
 - collate and maintain a strategic picture of the emergency response with a particular focus on response and recovery issues;
 - brief Ministers;
 - ensure effective communication between local, Scottish and UK levels, including the co-ordination of reports on the response and recovery effort;
 - support response and recovery efforts as appropriate, including the allocation of scarce Scottish resources;
 - determine the Scottish Government's public communication strategy and co-ordinate national public messages in consultation with SCGs and other key stakeholders;
 - disseminate national advice and information for the public, through the media;
 - Liaise, if appropriate, and work in partnership with the UK Government.
92. To achieve the above, clear and comprehensive communication between SGoRR and all agencies involved is vital. The Scottish Government's Resilience Division will lead the operation of SGoRR. Typically, SGoRR will include officers from the main affected Scottish Government Directorates and representatives of relevant agencies.
93. If the particular circumstances of the emergency requires co-ordination and support from the UK Government, SGoRR will work with COBR, the Scotland Office and other relevant departments in Whitehall. SGoRR will be the main point of contact for the SCGs.
94. The Scottish Government recognises that local decisions must be taken locally. It will not interfere in local emergency response arrangements unless specifically empowered to do so by emergency regulations.
95. Further information and guidance on resilience in Scotland is available at Ready Scotland: "Preparing Scotland".²⁸

²⁷ www.gov.scot/publications/2012/03/2940/6

²⁸ www.readyscotland.org/ready-government/preparing-scotland

Arrangements in NI

NI Executive

96. The strategic consequence management issues arising from a CBRN incident are the responsibility of the NI Executive and in the event of such an incident the NI Executive would, as required, activate its crisis management arrangements to deal with those consequences. These would be facilitated by the LGD for Level 1 emergencies or via the NI Central Crisis Management Arrangements (NICCMA) for Level 2/3 emergencies. The arrangements are described below.

Recovery for Level 2 and 3 Emergencies – NICCMA

97. In the case of Level 2 or 3 emergencies where the impact is such that recovery requires strategic co-ordination and management at NI level, this will be provided via the NICCMA. These central strategic co-ordination arrangements, led by the Office of the First Minister and Deputy First Minister, are designed to deal with wide ranging consequence management issues spanning a number of sectors. Within NICCMA, each NI department delivers its own response in line with its LGD and policy responsibilities.

Role of NICCMA in recovery

98. The role of NICCMA in the recovery phase will be to:
- establish agreed strategic priorities for recovery;
 - put in place medium and long term policies, machinery and funding to support those priorities.
99. The NICCMA will operate in accordance with the terms of the NICCMA's Protocol.

Need for recovery machinery at a local level while NICCMA is convened

100. NICCMA will primarily focus on strategic management arrangements and these will not replace the need for recovery machinery at local level to deal with immediate operational actions and to give practical effect to the strategic priorities agreed through NICCMA. Therefore it may be necessary to have a number of local RCGs, each dealing with the immediate operational issues within its own geographical area.

Recovery for Level 1 Emergencies - Recovery by LGD

101. Where the impact of an emergency does not necessitate NICCMA, but still requires strategic co-ordination by central government ie Level 1 emergencies, this will be facilitated by the LGD.
102. For a CBRN Level 1 emergency, the Department of Justice (DOJ) is the LGD and will facilitate multi-agency co-ordination unless it is more appropriate for another NI department to do so. In such circumstances DOJ will transfer responsibility to the appropriate LGD.
103. The LGD will:
- take strategic decisions on recovery issues in consultation with other organisations;
 - co-ordinate the strategic response.

Strategic Recovery Co-ordination Group (SRCG)

104. The SRCG will consider initial recovery issues at the outset of the emergency. Recovery issues will then pass, in line with agreed arrangements and as appropriate, to the SRCG or Local Recovery Co-ordination Group (LRCG). The SRCG function will be delivered by NICCMA for Level 2/3 emergencies and the relevant LGD for Level 1 emergencies. The SRCG will be the strategic multi-agency decision making body for the recovery phase. It will determine the recovery strategy taking advice from the LRCG and will oversee implementation of the recovery strategy and the rebuilding of public confidence.

LRCG

105. Where, due to the impacts of the emergency, it is necessary to convene strategic co-ordination machinery this will primarily focus on strategic management arrangements. These will not replace the need for recovery machinery at the local level to deal with immediate operational actions and to give practical effect to the strategic priorities agreed through the SRCG. Therefore it may be necessary to have a number of LRCGs, each dealing with the immediate operational issues within its own geographical area.

106. Local recovery machinery will still be required during Level 1 - 3 emergencies to deal with operational recovery issues and to implement strategic decisions. Where the emergency is widespread or if the impacts extend across administrative boundaries it may be necessary to have more than one LRCG. Where the impact of an incident is primarily on a local level and SRCG is not set up, the LRCG will provide the means of co-ordination of the local recovery.

Contingency planning and precautionary measures

107. Employers have a duty under health and safety law to ensure the health, safety and welfare of their staff and of members of the public. Duties include identifying and assessing risks, and preventing and controlling them. The Civil Contingencies Act 2004 requires Category 1 responders (such as emergency services, LAs and National Health Service (NHS) bodies) to assess the risk of emergencies occurring and put in place emergency and business continuity plans. Under the Control of Major Accident Hazard (COMAH) Regulations 2015, the operations of sites covered by the regulations and their relevant LA both have a duty to prepare on-site and off-site emergency plans. Similarly, the preparation of emergency plans is a legislative requirement for civil nuclear sites.
108. Contamination, arising from the release of HazMat or a CBRN attack, is only one of the potential threats to a business. Apart from conventional forms of attack, there is a range of other possible emergencies – such as a serious fire, flooding or major information technology (IT) failure – that could disrupt business operations. Business continuity plans should include the possibility of chemical, biological or radiological contamination along with other potential threats.
109. Plans should identify the nature of the threat, the level of the risk, the consequences for the business and the measures that will be taken to mitigate them. These include precautionary measures to prevent or limit the effects of an incident and measures to manage an

incident that does occur. Designers of critical national infrastructure should consider ease of decontamination when deciding what materials to use. The key aims should be to strengthen resilience to protect people and property, and to promote rapid recovery.

Public information

110. The arrangements for public information and media handling in the event of an incident in England and Wales are set out in chapter 8 of Emergency Response and Recovery²⁹ and chapter 7 of Emergency Preparedness.³⁰ For Scotland, guidance can be accessed from the Preparing Scotland pages of the Scottish Government website. Guidance on dealing with the media in the event of an incident in NI is available in chapter 8 of the Guide to Emergency Planning Arrangements in NI.³¹
111. As noted above, the main focus of activity on decontaminating buildings and infrastructure is likely to fall in the recovery phase when the overall lead for media handling will have passed to the LA. It is important that all public information, including progress reports to staff, is co-ordinated through the established media arrangements to avoid the risk of contradictory and confusing messages.

²⁹ www.gov.uk/government/publications/emergency-response-and-recovery

³⁰ www.gov.uk/government/publications/emergency-preparedness

³¹ www.health-ni.gov.uk/sites/default/files/publications/dhssps/epr-guide-to-emergency-planning-arrangements-northern-ireland.pdf

Feedback

112. We would welcome views on this guidance, including on areas that are not covered but are relevant to decontaminating buildings, infrastructure and the open environment, so that we can take them into account when preparing the next version. Comments should be sent to gds@gds.gsi.gov.uk

Please head your email 'Decontamination of Buildings, Infrastructure and the Open Environment'. Written comments should be sent to:

**SNG
UK Government Decontamination
Service
MOD Stafford
Beaconside
Stafford
ST18 0AQ**

Appendix A: CBRN and major HazMat materials

Introduction

- A1. This appendix provides some background information on the nature of some of the materials which could be encountered in CBRN and major HazMat incidents to provide a brief overview for the non-specialist. CBRN and HazMat incidents involve the deliberate or accidental release of chemical, biological or radiological substances. Nuclear incidents refer to the detonation of a nuclear device, which would produce radioactive fallout and contamination over a wide area.

CBRN Substances

- A2. CBRN substances vary widely in their properties and characteristics, the hazards and risks they present to health, and the challenges they present for the decontamination of people and the environment. The examples of materials given are purely illustrative and do not represent any assessment of likely threats to buildings and infrastructure of deliberate release of CBRN materials.
- A3. In broad terms, CBRN substances give rise to 5 main types of hazard:

- contact
- inhalation
- injection
- ingestion
- proximity

- A4. Contact hazards can result from the agent attacking the skin directly or by absorption of the agent into the body through the skin and eyes. Inhalation hazards arise from breathing in vapour, aerosol or contaminated dust. The agent can either affect the lungs directly or can be absorbed

into the body. Injection hazards arise from the entry of the agent into the body through abrasions, open wounds or contaminated shrapnel or debris cutting the skin. Ingestion hazards arise if food, drinking water or milk is contaminated, or by transfer if people's hands are contaminated when they eat or drink. Proximity to radioactive materials can lead to radiation sickness, burns, increased risk of cancer and other long-term health risks or problems.

Chemical substances

- A5. Some chemical substances are hazardous to health and can cause acute and/or prolonged detrimental effects.
- A6. The nature and severity of the chemical hazard depends on a number of factors including the type of substance, concentration, route of exposure and the environment in which it has been released.
- A7. Chemical substances of interest include:
- **Toxic industrial chemicals** (TICs) such as chlorine, hydrogen cyanide and phosgene
 - **Chemical warfare agents** (CWAs) such as sarin, VX and sulphur mustard
- A8. Whereas TICs have a direct or indirect industrial or commercial purpose, CWAs have no known use other than to cause significant harm to human health.
- A9. Symptoms of exposure are wide-ranging and are largely dependent on the type of chemical substance and the extent of exposure. Some examples of symptoms are reddening of the skin, large blister formation, vomiting, loss of muscular control and convulsions. Acute exposure to some hazardous chemicals can result in rapid death.

A10. Various decontamination options are available in the event of a release of hazardous chemicals. Options include the use of reactive liquids, treatment with sorbent materials and mechanical removal of contaminated surfaces.

Biological substances

A11. Some biological agents are hazardous to health and can cause infection or poisoning.

A12. Biological agents of interest include:

- *Bacillus anthracis* (causative agent of anthrax)
- *Viruses*, such as Ebola
- *Toxins*, such as ricin

A13. Infection by some of these agents, depending on the type of exposure, will initially cause influenza like symptoms (such as sore throat, mild fever, fatigue and muscle aches). If not treated promptly this may lead to death.

A14. A number of biological agents do not pose a contact risk unless the skin is broken. However they can be hazardous if sufficient amounts are inhaled, ingested or injected.

A15. It could take days or even weeks before people and/or animals display symptoms of infection. Current methods for detecting and identifying biological agents may take several days to yield results which could lead to delays in recovery efforts.

A16. Biological agents are difficult to disperse, while retaining their disease causing properties. Biological substances have the potential to produce severe disruption to both the population and the economy as they can be released covertly.

Radiological substances

A17. Ionising radiation in sufficient quantities can be hazardous to human health, exposure to radioactive material or intake of material can have short term and/or long term health consequences. Short term health effects can include skin reddening, lesions or death. Long term health can see an increased risk in developing cancers.

A18. The main principles of protecting against ionising radiation include time, distance and shielding.

A19. There are three main types of ionising radiation; Alpha, Beta and Gamma. All of which pose different hazards. There are also over 1000 different radioactive isotopes which pose different radiological and chemical hazards.

A20. Radioactive materials are used in nuclear power plants to generate energy, they are also used in various medical and industrial applications including, hospitals, construction and oil and gas.

A21. The different types of incidents which result in the release of ionising radioactive material include; **Radiological Dispersal Devices** (RDD), off site nuclear facility release or **Improvised Nuclear Device** (IND).

A22. Radiological decontamination requires specialist skilled and qualified radiation experts who must ensure compliance with legal requirements when working with ionising radiation. Decontamination options include; removal of the source, mechanical removal of contaminated surfaces, cleaning and removal of radioactive particulate.

Appendix B: Accessing remediation services

- B1. For non-urgent and general enquiries, the GDS team can be contacted on **0300 1000 315** or by email: gds@gds.gsi.gov.uk
- B2. GDS provides an emergency 24-hour on-call service that can be contacted to help deal with emergencies and facilitate access to its services. To contact the GDS Duty Officer call **0300 1000 316**.
- B3. The GDS team will, on request, offer advice and guidance to support those responsible for decontamination or wider remediation (usually central government, responsible authorities/agents or the emergency services) following a deliberate or accidental release.
- B4. The GDS team can also offer advice on:
- remediation options (including whether or not to decontaminate and what alternative options are available);
 - the capability, capacity and availability of GDS Framework specialist remediation services;
 - engagement of Framework Supplier

Accessing the GDS Framework

- B5. The GDS Framework is in place for 4 years (2016 – 2020) and has been procured in line with the European Union (EU) Procurement Directives. The Framework was established to simplify and speed up the award of contracts for decontamination and related services following an incident. Using the GDS Framework removes the need for a Contracting Authority to conduct any further procurement under EU rules.
- B6. National and local government organisations within the UK can call-off from the GDS Framework in two ways; either by direct ordering or mini-competition³². The Contracting Authority for CBRN incident recovery is usually the LA, however other organisations within government can also contract under the Framework.
- B7. Terms and conditions and pre-agreed incident rates, are set out in the Framework Agreements held with each supplier. These will be shared with the Contracting Authority,³³ along with information on supplier capability and the call-off process when use of a GDS Framework Supplier is required. The GDS team will provide further advice on this process at the time of an incident.
- B8. Private organisations are able to fully access the services of the GDS team and their knowledge of private sector supplier capability. However, under EU public procurement rules they cannot contract directly with suppliers using a Framework Agreement. Private organisations are able to contract with suppliers using commercial terms. Alternatively, a Contracting Authority can access Framework services on behalf of private organisations, using one of two available options:
- a public sector body enters into an agreement in which one or more private sector organisation agrees to pay the public sector body for the work. The public sector body (Contracting Authority) then identifies and contracts with the Framework Supplier, and on successful completion of the work the Contracting Authority pays the Framework Supplier. The private organisation(s) pay the public sector body for the work undertaken;

³² www.gov.uk/guidance/cbrn-and-hazmat-incidents-specialist-suppliers-that-deal-with-decontamination

³³ www.legislation.gov.uk/uksi/2015/102/pdfs/uksi_20150102_en.pdf

- a public sector body acts as an agent for one or more private-sector organisations and contracts on the private organisation's behalf. An agency agreement will exist between the public body and each private sector company. The private company will pay the supplier direct but ultimate responsibility for paying the supplier will always sit with the public body (who is the Contracting Authority);

Where such arrangements are entered into, the public body contracting through the Framework should ensure that they are clear where liability for the work undertaken lies in such circumstances and may wish to seek further legal advice.

Appendix C: Decontamination planning checklist

- C1 The following is a list of issues for consideration when planning the decontamination process:
- Have sampling and a detailed evaluation been conducted to determine the exact nature and extent of the contamination?
 - Is decontamination required?
 - Are the buildings/items worth saving?
 - Have those directly affected been consulted?
 - Can personal items of high value to the owner be decontaminated?
 - Should the buildings be sealed?
 - If the buildings are to be demolished, have specialist agencies and the LA been consulted on how this will be tackled to limit the spread of contamination to surrounding buildings and areas?
 - If the buildings are to be decontaminated have specialist agencies been consulted on how the work will be carried out safely and effectively, so that the buildings can be reoccupied as soon as possible?
 - Have contractors been engaged on behalf of the building's owner/occupier to carry out the decontamination?
 - Has it been decided who will cover the cost of engaging any specialist contractors?
 - Has it been decided who will monitor the progress of the work and compile regular reports to be circulated to staff, the public and neighbouring owners/occupiers?
 - Has it been decided who will have overall control of the decontamination process, including health and safety issues?
 - Based on the sampling and evaluation results, and advice from specialist agencies and advisers, has a detailed plan for decontamination been drawn up? If so, does it include:
 - the nature and extent of the contamination;
 - any structural damage to the building(s);
 - characteristics of each building, its systems and contents;
 - the precise objectives for decontamination of each building, its systems and contents;
 - whether decontamination of movable items is to be done on-site or off-site and the arrangements for moving them safely;
 - whether any items are to be disposed of and if so, the agreed methods of decontamination or remediation (detailed records should be kept of contaminants and their treatment);
 - how the outcome of decontamination will be assessed to validate the process, including arrangements for sampling and analysis;

- whether there are any aspects of the building's age, location, surrounding environment, infrastructure or intended use that may affect the way decontamination is carried out (issues to be considered include the historic landscape and the ecological or archaeological value of the environment);
- whether it has been decided how the decontamination process will be prioritised if there is widespread contamination and if the building comprises several premises;
- whether checks have been carried out to establish if any contaminants already exist in the contaminated building (for example, asbestos or lead);
- whether suitable and secure temporary buildings will be provided to accommodate contractors and store equipment and materials;
- whether there are facilities for decontaminating the staff engaged in the work;
- whether the health and environmental consequences of the decontaminants or remediation options have been addressed;
- whether arrangements have been made to manage, transport and dispose of the waste material;
- whether, if more than one contractor is working on the project, plans have been made to ensure a consistent approach to removing contaminated materials?
- availability of utilities (eg water and electricity) for decontamination operations.
- Have relevant bodies been consulted and any necessary clearances or approvals obtained?³⁴
- Have plans been made and who³⁵ will decide when the building is safe for reoccupation?

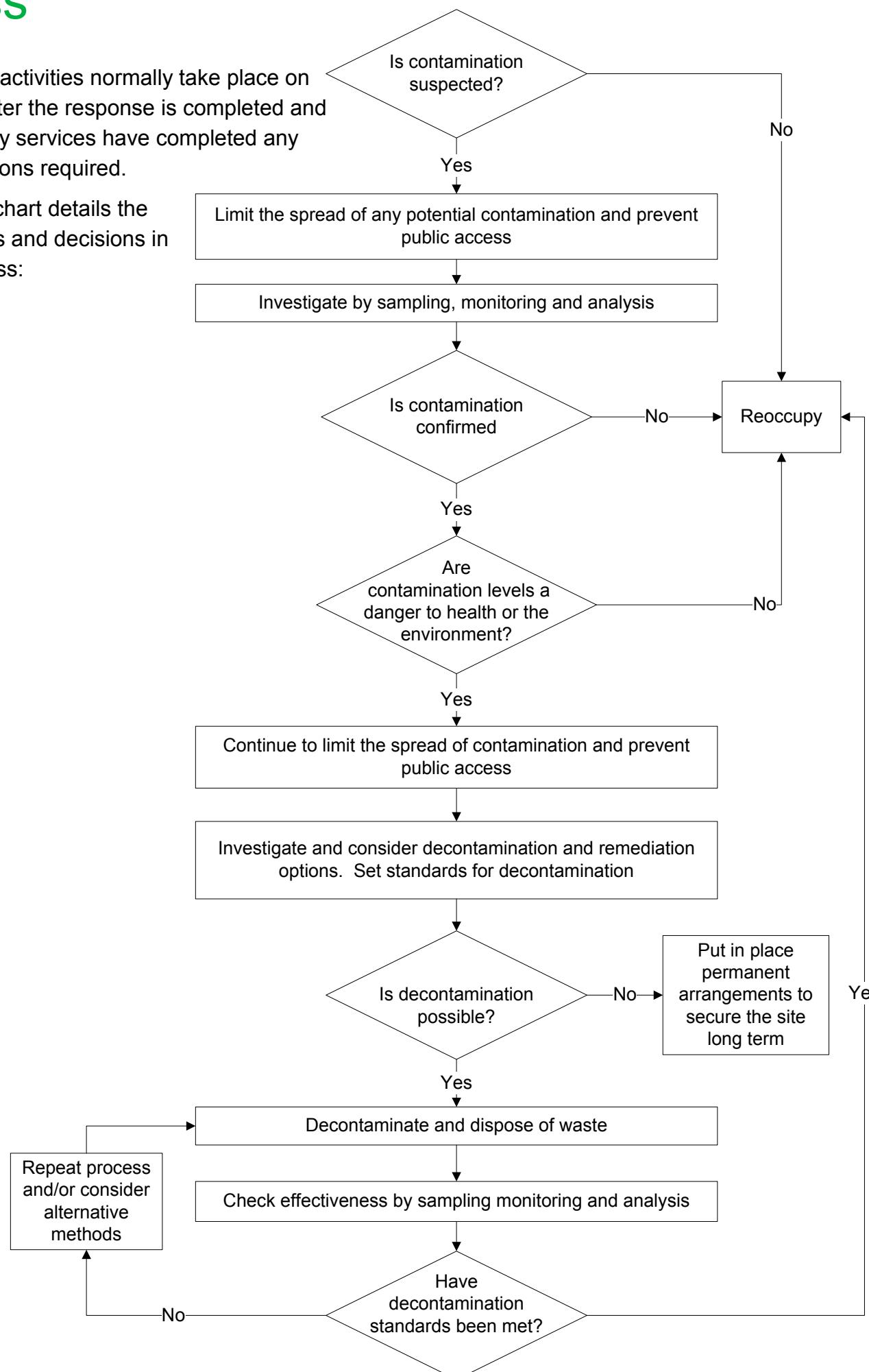
³⁴ The relevant bodies are the HSE or HSENI on health and safety issues; the FRS on fire safety aspects; the LA in GB on development control, building control (for structural and building material aspects) and health and safety where that falls to the authority rather than the HSE; the EA/SEPA/NRW/ on environmental and waste management aspects; water and sewerage authorities where water supplies may be used in the decontamination process and contaminated water will need to be disposed of (for example, if it is proposed to dispose to sewer); English Heritage (NIEA in NI) on listed historic buildings in England; and the DCMS for decisions affecting scheduled ancient monuments in England (NIEA in NI).

³⁵ This will normally be the SCG set up to handle the incident.

Appendix D: Outline of decontamination process

- D1. Recovery activities normally take place on the site after the response is completed and emergency services have completed any investigations required.

This flow chart details the key stages and decisions in this process:



Appendix E: Prioritising decontamination work

Introduction

E1. In the event that more than one area or building requires decontamination or remediation, it is likely to be the responsibility of the SCG to prioritise the work. Although prioritisation will need to be decided on a case-by-case basis, the following checklist, developed from one originally designed by Westminster City Council,³⁶ provides areas for consideration.

Initial considerations

- E2. Is there credible evidence of a high contamination level and immediate risk to the public?
 - High contamination levels in venue: measurements already taken in venue may indicate immediate and high risk.
 - High levels in other, linked venues: the link between this venue and others should be of a nature that makes it likely that contamination in this venue will be at similar (high) levels to those already measured in other venues.
 - Specific, credible information that such an immediate and high risk exists: for example, witness statements, police information.
- E3. Can access to the venue/item/area be readily restricted?
 - Small objects, such as chairs, may be moved to a locked room.
 - Discrete areas, such as toilets, bedrooms, etc, may be locked or cordoned off with minimal disruption to the rest of the venue.

- E4. Does the venue/item/area need to be put back into services as soon as possible?
 - Use of transport assets to move people and casualties quickly;
 - Assets for the emergency services.

- E5. What is known about the public health risk?

Contamination

- E6. Is the contamination mobile or fixed? (Can it be easily spread around, re-suspended or wiped onto skin, with the risk of subsequent intake?)
 - What are the levels of contamination?
 - What is the extent and pattern of the contamination? (Is it patchy, widespread, variable in level etc?)

How likely are people to be exposed?

- E7. What was the area/item used for (if a restaurant, play area for small children, toilet/bathroom or bedroom, people may be more likely to ingest or inhale the contaminant) and is it going to be returned to that use?
 - How long are people likely to stay in or near the contaminated venue/item/area (the longer they stay, the more likely they are to be exposed, or the higher their exposure is likely to be)?
 - Are vulnerable groups likely to use the area/item (young children, elderly people and disabled people are all more prone to the effects of contamination)?

³⁶ www.epcollegeonline.com/pluginfile.php/34066/mod_resource/content/1/litvenenko.pdf Annex I

- How many people are likely to use the area/item? Larger numbers of people generally increase the collective public health risk, but may either increase (for example, cause re-suspension) or decrease (for example, provide shielding against exposure to the radiation) the individual health risk.

What are the implications for communication?

- E8. What is likely to be the impact on the ‘message’ response agencies are trying to give out? (For example, if a complete venue is closed, will public knowledge of this closure, regardless of the public importance of the venue, undermine the message that the risk to the public is small?)
- How ‘visible’ is the area/item? (Closing a major public area, or prohibiting access to a well-known venue would be highly visible to the public and could raise anxiety, whereas closing off a hotel bedroom would not be noticed by the public).

Additional considerations

- E9. Where there has been widespread contamination, remediation is likely to take considerable time and resources to complete. It will therefore be necessary to prioritise the longer-term recovery plans for the area, and in particular the remediation of places such as schools, infrastructure, housing and businesses, all of which have a significant impact on the community.

Appendix F: Glossary

Building control

- F1. The regime governing construction standards for the erection, extension or alteration of buildings, including control of demolition and dangerous structures, under the Building Act 1984, the Building Regulations and associated legislation.

Business continuity management

- F2. Holistic management process that identifies potential threats to an organisation and impact on business operations that those threats, if realised, might cause, and which provides a framework for building organisational resilience with the capability for an effective response.

CBRN

- F3. A term used to describe Chemical, Biological, Radiological or Nuclear materials. CBRN is often associated with terrorism.

Characterisation

- F4. In this document characterisation or characterisation sampling means detailed environmental sampling and analysis of a site or building to establish the level and distribution of the contamination. Characterisation should supply a quantitative assessment of the area to inform any decontamination strategy.

Containment

- F5. Measures to limit or prevent the spread of contamination.

Contracting Authority

- F6. Means the State, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law, and includes central government authorities, but does not include Her Majesty in her private capacity as defined in the Public Contracts Regulations 2015.³⁷

Decontamination

- F7. Removal or reduction of hazardous materials to lower the risk of further harm to victims and/or cross contamination.

Decontamination plan/strategy

- F8. A plan setting out the work to be done in decontaminating a building, the specific clean-up objectives to be met, the methods to be used and the way in which the outcomes will be assessed.

Development control

- F9. The regime under land use planning legislation governing proposals for new buildings, alterations to existing ones, change of use and the erection of signs and advertisements. It controls when planning permission, listed building consent or conservation area consent should be sought, and provides enforcement powers against unauthorised development.

Enforcement

- F10. Action to ensure compliance with duties under health and safety, and environmental legislation.

³⁷ www.legislation.gov.uk/uksi/2015/102/pdfs/uksi_20150102_en.pdf

Framework agreement

F11. A general term for agreements with contractors setting out terms and conditions under which specific purchases (call-off contracts) can be made. Call-off contracts with an expiry date falling after the end of the framework period can be put in place. The GDS Framework Agreement for the Provision of Decontamination Services was awarded in April 2016 with a framework period of four years.

HazMat

F12. Abbreviation for hazardous materials although it is commonly used in relation to procedures, equipment and incidents involving hazardous materials.

Loss adjuster

F13. A chartered professional and independent expert who specialises in assessing the loss incurred, managing the mitigation of the loss and negotiating the amounts to be paid following an insurance claim. Loss adjusters are generally commissioned by an insurance company and co-ordinate the work of specialist contractors where needed in order to provide speedy settlement at minimum cost.

Pool Re

F14. A scheme set up by the insurance industry in co-operation with the UK government so that insurers can continue to cover losses resulting from damage caused by acts of terrorism to commercial property in Great Britain.

Recovery

F15. The process of rebuilding, restoring and rehabilitating the community following an emergency.

Recovery Co-ordinating Group (RCG)

F16. Strategic decision making body for the recovery phase once handover has taken place from the police.

Remediation

F17. Restoration of a built or natural environment that has been destroyed, damaged, or rendered hazardous as the result of an emergency or disaster. Linked to recovery.

Resilience

F18. Ability of the community, services, area or infrastructure to detect, prevent, and, if necessary to withstand, handle and recover from disruptive challenges.

Responsible authority

F19. This would normally be the LA; however, for critical national infrastructure or sites that are privately owned it could be the owners or managers of the site. The responsible authority would normally lead the RCG through an incident and the SCG during the recovery phase.

Sampling

F20. Collecting a small amount of contaminant for analysis.

Scientific Advisory Group in Emergencies (SAGE)

F21. Group of scientific and technical experts that is established to provide a common source of advice to inform decisions made during the central government response to an emergency.

Science and Technical Advice Cell (STAC)

F22. Group of technical experts from those agencies involved in an emergency response that may provide scientific and technical advice to the SCG chair or single service strategic commander.

Site evaluation/classification survey

F23. A detailed assessment of a building and its contents, or open area to establish the nature and extent of contamination.

Strategic Co-ordinating Group (SCG)

F24. Multi-agency body responsible for co-ordinating the joint response to an emergency at the local strategic level. In Scotland SCGs are the principal local forum for multi-agency cooperation in civil protection. The groups have a role in both preparation and response to emergencies.

Appendix G: Acronyms

ABI	- Association of British Insurers
AFBI	- Agri-Food and Biosciences Institute
AWE	- Atomic Weapons Establishment
BCI	- Business Continuity Institute
BCP	- Business Continuity Plan
BEIS	- Department for Business, Energy and Industrial Strategy
CBRN	- Chemical, Biological, Radiological and Nuclear
CCA 2004	- Civil Contingencies Act 2004
CO	- Cabinet Office
COBR	- Cabinet Office Briefing Rooms
COMAH	- Control of Major Accident Hazards
CONOPS	- Central Government Concept of Operations
CPNI	- Centre for the Protection of National Infrastructure
CWA	- Chemical Warfare Agents
DCLG	- Department for Communities and Local Government
DCMS	- Department of Culture, Media and Sport
Defra	- Department for Environment, Food and Rural Affairs
DfE	- Department of Education
DfT	- Department of Transport
DIM	- Detection, Identification and Monitoring
DOJ	- Department of Justice
Dstl	- Defence, Science and Technology Laboratory
EA	- Environment Agency
ECC(W)	- Emergency Co-ordination Centre (Wales)
EPS	- Emergency Planning Society
EPR 2016	- Environmental Permitting Regulations 2016
EU	- European Union
FRS	- Fire and Rescue Service
FSA	- Food Standards Agency
GDS	- UK Government Decontamination Service
GLO	- Government Liaison Officers
HART	- Hazardous Area Response Teams
HazMat	- Hazardous Materials
HO	- Home Office
HPS	- Health Protection Scotland
HSE	- Health and Safety Executive
HSENI	- Health and Safety Executive Northern Ireland
IEM	- Integrated Emergency Management
IND	- Improvised Nuclear Device
IT	- Information Technology
JESIP	- Joint Emergency Service Interoperability Programme
LA	- Local Authority
LGA	- Local Government Association
LGD	- Lead Government Department
LRCG	- Local Recovery Co-ordination Group
LRF	- Local Resilience Forum
MACA	- Military Aid to the Civil Authorities
MOD	- Military of Defence

NHS	- National Health Service
NI	- Northern Ireland
NICCMA	- Northern Ireland Central Crisis Management Arrangements
NIEA	- Northern Ireland Environment Agency
NPCC	- National Police Chiefs Council
NRG	- National Recovery Guidance
NRW	- Natural Resources Wales
PDF	- Portable Document Format
PHA	- Public Health Agency
PHE	- Public Health England
PHE-CRCE	- Public Health's Centre for Radiation, Chemicals and Environmental Hazards
PHW	- Public Health Wales
PPE	- Personal Protection Equipment
RCG	- Recovery Co-ordinating Group
RDD	- Radiological Dispersal Device
RED	- Resilience and Emergencies Division
ResCG	- Response Co-ordinating Group
RSA93	- Radioactive Substances Act 1993
SAGE	- Scientific Advisory Group in Emergencies
SEPA	- Scottish Environment Protection Agency
SCG	- Strategic Co-ordinating Group
SGoRR	- Scottish Government Resilience Room
SI	- Statutory Instrument
SRCG	- Strategic Recovery Co-Ordination Group
STAC	- Science and Technical Advice Cell
TIC	- Toxic Industrial Chemicals
WCCC	- Wales Civil Contingencies Council

Appendix H: Useful publications, guidance and legislation

Name of Collection	Published by	Date	Web Address
Recovery, remediation and environmental decontamination (Resources for the management of chemical, radiation and biological incidents , including UK recovery handbooks) <i>This collection includes the following documents and tools</i>	Public Health England	May 2016	www.gov.uk/government/collections/recovery-remediation-and-environmental-decontamination
UK recovery handbook for biological incidents	Public Health England	Nov 2015	www.gov.uk/government/publications/uk-recovery-handbook-for-biological-incidents
UK recovery for radiation incidents 2015	Public Health England	June 2015	www.gov.uk/government/publications/uk-recovery-handbooks-for-radiation-incidents-2015
UK recovery handbook for chemical incidents (and associated publications)	Public Health England	June 2013	www.gov.uk/government/publications/uk-recovery-handbook-for-chemical-incidents-and-associated-publications
Chemical , biological or radiation incidents: recovery factsheet	Public Health England	Mar 2016	www.gov.uk/government/publications/chemical-and-radiation-incidents-recovery-factsheet
Chemical recovery guidance and tools : user guide	Public Health England	Mar 2016	www.gov.uk/government/publications/chemical-recovery-guidance-and-tools-user-guide
Radiation recovery guidance and tools: user guide	Public Health England	May 2016	www.gov.uk/government/publications/radiation-recovery-guidance-and-tools-user-guide
Radiation recovery navigation tool : inhabited areas (Rad RNT)	Public Health England	Dec 2015	www.gov.uk/government/publications/radiation-recovery-navigation-tool-inhabited-areas-rad-rnt
Radiation recovery navigation tool: food production (Rad RNT)	Public Health England	Dec 2015	www.gov.uk/government/publications/radiation-recovery-navigation-tool-food-production-rad-rnt
Radiation recovery navigation tool drinking water supplies (Rad RNT)	Public Health England	Dec 2015	www.gov.uk/government/publications/radiation-recovery-navigation-tool-drinking-water-supplies-rad-rnt
Radiation recovery record form (RRRF): food, inhabited areas and drinking water	Public Health England	Nov 2015	www.gov.uk/government/publications/radiation-recovery-record-form-food-inhabited-areas-and-drinking-water
Chemical recovery navigation tool (CRNT)	Public Health England	Dec 2015	www.gov.uk/government/publications/chemical-and-radiation-recovery-navigation-tool-cr-rnt
Chemical recovery record form (CRRF): food, inhabited areas and water environment	Public Health England	May 2014	www.gov.uk/government/publications/chemical-recovery-record-form-crrf-food-inhabited-areas-and-water-environment
Chemical and radiation incidents: recovery tools e-learning module	Public Health England	Feb 2015	www.gov.uk/government/publications/chemical-and-radiation-incidents-recovery-handbooks-and-tools

Name of Collection	Published by	Date	Web Address
Civil Contingencies Policy Branch – Guidance documents	The Executive Office – Northern Ireland		www.executiveoffice-ni.gov.uk/publications/civil-contingencies-policy-branch-guidance-documents
Preparing Scotland – a suite of documents relating to preparing for and dealing with emergencies	The Scottish Government	Jun 2016	www.readyscotland.org/ready-government/preparing-scotland/
Radiation: PHE-CRCE report series	Public Health England	July 2016	www.gov.uk/government/collections/radiation-phe-crce-report-series
Transporting dangerous goods	Department for Transport	Jan 2017	www.gov.uk/government/collections/transporting-dangerous-goods
Wales Resilience - Publications	Wales Resilience		www.walesresilience.gov.uk/publicationsnew/?lang=en

Name of Document	Published by	Date	Web Address
A Brief Guide to the 2014 EU Public Procurement Directives	Crown Commercial Service	Oct 2016	www.gov.uk/government/uploads/system/uploads/attachment_data/file/560261/Brief Guide to the 2014 Directives Oct 16.pdf
A Guide to Emergency Planning Arrangements in Northern Ireland	Civil Contingencies Policy Branch – The Executive Office	Sept 2011	www.health-ni.gov.uk/sites/default/files/publications/dhssps/epr-guide-to-emergency-planning-arrangements-northern-ireland.pdf
CBRN and Hazmat incidents: specialist providers that deal with decontamination	Department of Environment, Food and Rural Affairs and UK Government Decontamination Service	Sept 2014	www.gov.uk/guidance/cbrn-and-hazmat-incidents-specialist-suppliers-that-deal-with-decontamination
The central government's concept of operations (CONOPS)	Cabinet Office	April 2013	www.gov.uk/government/publications/the-central-government-s-concept-of-operations
Emergency preparedness	Cabinet Office	Jan 2006	www.gov.uk/government/publications/emergency-preparedness
Emergency response and recovery	Cabinet Office	Feb 2013	www.gov.uk/guidance/emergency-response-and-recovery
Framework Strategy for dealing with Radioactive contamination arising from the circumstances surrounding the death of Alexander Litvinenko	City of Westminster		www.epcollegeonline.com/pluginfile.php/34066/mod_resource/content/1/litvenenko.pdf
National Recovery Guidance	Cabinet Office	June 2013	www.gov.uk/guidance/national-recovery-guidance

Name of Document	Published by	Date	Web Address
Pan Wales Response Plan	Wales Resilience Forum	Sept 2014	www.walesresilience.gov.uk/publicationsnew/6357918/?lang=en
Precautions to minimise effects of a chemical, biological, radiological or nuclear event on buildings and infrastructure	Department for Communities and Local Government	May 2004	www.gov.uk/government/publications/precautions-to-minimise-effects-of-a-chemical-biological-radiological-or-nuclear-event-on-buildings-and-infrastructure
Provision of scientific and technical advice in the strategic co-ordination centre: guidance to local responders	Cabinet Office	April 2007	www.gov.uk/government/publications/provision-of-scientific-and-technical-advice-in-the-strategic-co-ordination-centre-guidance-to-local-responders
The release of chemical, biological, radiological or nuclear (CBRN) substances or material: guidance for local authorities	Cabinet Office	Jan 2006	www.gov.uk/government/publications/the-release-of-chemical-biological-radiological-or-nuclear-cbrn-substances-or-material-guidance-for-local-authorities
Scientific Advisory Group for Emergencies (SAGE)	Cabinet Office	Oct 2012	www.gov.uk/government/publications/scientific-advisory-group-for-emergencies-sage
Site clearance capability	Department for Communities and Local Government	May 2016	www.gov.uk/government/publications/site-clearance-capability
Strategic National Guidance - the decontamination of people exposed to CBRN substances or material	Cabinet Office	Jan 2006	www.gov.uk/government/publications/strategic-national-guidance-the-decontamination-of-people-exposed-to-cbrn-substances-or-material
Understand how your council works		Feb 2017	www.gov.uk/understand-how-your-council-works
2015 to 2020 government policy: Military Aid to the Civil Authorities (MACA) for activities in the UK	Ministry of Defence and The Rt Hon Sir Michael Fallon MP	Aug 2016	www.gov.uk/government/publications/2015-to-2020-government-policy-military-aid-to-the-civil-authorities-for-activities-in-the-uk

Other useful documents / websites	Published by	Date	Web Address
Environmental management: Environmental permits <i>The site contains links guidance, advice on environmental permits and application forms</i>	Environment Agency, Department for Environment, Food and Rural Affairs and Welsh Government		www.gov.uk/topic/environmental-management/environmental-permits
List of lead government departments' responsibilities for planning, response and recovery from emergencies	Cabinet Office	Jan 2011	www.gov.uk/government/publications/list-of-lead-government-departments-responsibilities-for-planning-response-and-recovery-from-emergencies
Protocol for the disposal of contaminated water and associated wastes at incidents	Environment Agency, NI Environment Agency, Water UK and Chief Fire Officers Association	Oct 2012	www.water.org.uk/publications/water-industry-guidance/disposal-contaminated-water-october-2012

Name of Organisation	Website
Agri-Food and Biosciences Institute (AFBI)	www.afbni.gov.uk/
The Association of Ambulance Chief Executives (AACE)	www.aace.org.uk
The Association of British Insurers (ABI)	www.abi.org.uk/
Atomic Weapons Establishment (AWE)	www.awe.co.uk/about-us/our-company/
Business Continuity Institute (BCI)	www.thebci.org/
Cabinet Office (CO)	www.gov.uk/government/organisations/cabinet-office
Cadw	www.cadw.gov.wales
Centre for the Protection of National Infrastructure (CPNI)	www.cpni.gov.uk
Defence Science and Technology Laboratory (Dstl)	www.gov.uk/government/organisations/defence-science-and-technology-laboratory
Department for Business, Energy and Industrial Strategy	www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy
Department for Communities and Local Government (DCLG)	www.gov.uk/government/organisations/department-for-communities-and-local-government
Department of Culture, Media and Sport (DCMS)	www.gov.uk/government/organisations/department-for-culture-media-sport
Department for Education (DE)	www.gov.uk/government/organisations/department-for-education
Department of Environment, Food and Rural Affairs (Defra)	www.gov.uk/government/organisations/department-for-environment-food-rural-affairs
Department of Health, Social Services and Public Safety Northern Ireland (DHSSPSNI)	www.health-ni.gov.uk/about-department-health-social-services-and-public-safety
Department of Justice (DOJ)	www.justice-ni.gov.uk/
Department for Transport (DfT)	www.gov.uk/government/organisations/department-for-transport
Emergency Co-Ordination Centre Wales (ECC(W))	www.walesresilience.gov.uk/behindthescenes/walesresilience/emergencycentrewales/
The Emergency Planning Society (EPS)	www.the-eps.org/
English Heritage	www.english-heritage.org.uk/
Environment Agency (EA)	www.gov.uk/government/organisations/environment-agency
Fire and Rescue Service (FRS)	www.fireservice.co.uk
Food Standards Agency (FSA)	www.food.gov.uk/
Hazardous Area Response Teams (HART)	www.naru.org.uk/naru-work-activities/naru-work-activities-capability-deliverables-hart-programme/
Health and Safety Executive (HSE)	www.hse.gov.uk/
Health and Safety Executive Northern Ireland (HSENI)	www.hseni.gov.uk/

Name of Organisation	Website
Health Protection Scotland (HPS)	www.hps.scot.nhs.uk/
Historic Environment Scotland	www.historicenvironment.scot/
Home Office (HO)	www.gov.uk/government/organisations/home-office
The Joint Emergency Services Interoperability Programme (JESIP)	www.jesip.org.uk/home
The Lloyd's Market	www.lloyds.com/lloyds/about-us/what-is-lloyds/the-lloyds-market
Local Government Association (LGA)	www.local.gov.uk/
Local Resilience Forums (LRFs)	www.gov.uk/guidance/local-resilience-forums-contact-details
National Counter Terrorism Security Office (NaCTSO)	www.gov.uk/government/organisations/national-counter-terrorism-security-office
National Health Service (NHS)	www.nhs.uk/pages/home.aspx
National Police Chief's Council (NPCC)	www_npcc.police.uk/
Natural Resources Wales (NRW)	www.naturalresources.wales/splash?orig=/
Northern Ireland Environment Agency (NIEA)	www.daera-ni.gov.uk/northern-ireland-environment-agency
Northern Ireland Executive	www.northernireland.gov.uk/
The Maritime and Coastguard Agency (MCA)	www.gov.uk/government/organisations/maritime-and-coastguard-agency
Ministry of Defence (MoD)	www.gov.uk/government/organisations/ministry-of-defence
Police	www.police.uk
Police Service of Northern Ireland (PSNI)	www.psni.police.uk/
Public Health Agency in Northern Ireland (PHA)	www.publichealth.hscni.net/
Public Health England (PHE)	www.gov.uk/government/organisations/public-health-england
Public Health Wales (PHW)	www.publichealthwales.wales.nhs.uk/
Pool Re	www.poolre.co.uk/
Resilience Direct	www.ordnancesurvey.co.uk/business-and-government/public-sector/resilience-direct/about.html
Scientific Advisory Group for Emergencies (SAGE)	www.gov.uk/government/groups/scientific-advisory-group-for-emergencies-sage
Scottish Environment Protection Agency (SEPA)	www.sepa.org.uk/
The Scottish Government	www.gov.scot/
Scottish Government's Resilience Division (SGoRR)	www.gov.scot/publications/2012/03/2940/6
UK Government Decontamination Service (GDS)	www.gov.uk/government/groups/government-decontamination-service
Wales Resilience	www.walesresilience.gov.uk
The Welsh Government	www.gov.wales/
World Health Organisation (WHO)	www.who.int/en/

Legislation / Regulations	Web Address
Building Act 1984	www.legislation.gov.uk/ukpga/1984/55/contents/enacted
Building (Scotland) Act 2003	www.legislation.gov.uk/asp/2003/8/contents/enacted
Civil Contingencies Act 2004 (CCA 2004)	www.legislation.gov.uk/ukpga/2004/36/contents
Clean Neighbourhoods and Environment Act (NI) 2011	www.legislation.gov.uk/nia/2011/23/contents/enacted
Control of Major Accident Hazards (COMAH) Regulations 2015	www.legislation.gov.uk/uksi/2015/483/contents/made
Environment Act 1995	www.legislation.gov.uk/ukpga/1995/25/contents
The Environmental Damage (Prevention and Remediation) Regulations 2015	www.legislation.gov.uk/uksi/2015/810/made
Environmental Permitting (England and Wales) Regulations 2016 (EPR 2016)	www.legislation.gov.uk/uksi/2016/1154/made
Environmental Protection Act (EPA) 1990	www.legislation.gov.uk/ukpga/1990/43/contents
Health and Personal Social Services (NI) Order 1972	www.legislation.gov.uk/nisi/1972/1265/contents
Health and Safety at Work (NI) Order 1978	www.legislation.gov.uk/nisi/1978/1039
Health and Social Care Act 2012	www.legislation.gov.uk/ukpga/2012/7/contents/enacted
The Health Protection (Local Authority Powers) Regulations 2010	www.legislation.gov.uk/uksi/2010/657/contents/made
Ionising Radiations Regulations 1999 (IRR99)	www.legislation.gov.uk/uksi/1999/3232/contents/made
Local Government Act 2003	www.legislation.gov.uk/ukpga/2003/26/contents
Local Government in Scotland Act 2003	www.legislation.gov.uk/asp/2003/1/contents
London Buildings Acts (Amendment) Act 1939	www.legislation.gov.uk/ukla/1939/97/pdfs/ukla_19390097_en.pdf
London Local Authorities Act 2000	www.legislation.gov.uk/ukla/2000/7/contents/enacted
Pollution Control and Local Government (NI) Order 1978	www.legislation.gov.uk/nisi/1978/1049/contents
The Public Contracts Regulations 2015	www.legislation.gov.uk/uksi/2015/102/contents/made
Public Health Acts (Amendment) Act 1907	www.legislation.gov.uk/ukpga/Edw7/7/53/contents
Public Health Act (Northern Ireland) 1967	www.legislation.gov.uk/apni/1967/36/contents

Legislation / Regulations	Web Address
The Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR) 2001	www.legislation.gov.uk/uksi/2001/2975/contents/made
The Radioactive Substances Act 1993 Amendment (Scotland) Regulations 2011	www.legislation.gov.uk/ssi/2011/207/contents/made
The Radioactive Substances Act 1993 (Amendment) Regulations (Northern Ireland) 2011	www.legislation.gov.uk/nisr/2011/290/introduction/made
Town and Country Planning Act 1990	www.legislation.gov.uk/ukpga/1990/8/contents
Town and Country Planning (Scotland) Act 1997	www.legislation.gov.uk/ukpga/1997/8/contents
The Waste and Contaminated Land (Amendment) Act (NI) 2011	www.legislation.gov.uk/nia/2011/5/contents
Water Resources Act 1991	www.legislation.gov.uk/ukpga/1991/57/contents
World Health Organisation (WHO) International Health Regulations 2005	www.who.int/ihr/9789241596664/en/

The links in this document were correct at the time of publication.