

<b>Hazard/threat category</b>	<b>Sub-category</b>
Industrial accidents and environmental pollution	Biological substance release from a control measure failure
<b>Hazard and threat description, plus scale</b>	<b>Risk reference number</b>
Up to 10 fatalities and serious injuries or offsite impact with up to 1000 casualties	H12
<b>Date of revision</b>	<b>Next review</b>
November 2005	November 2007
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### 1. Overview of hazard or threat

Definition - Uncontrolled or malicious release of toxins beyond site boundary. The physical dispersal limits of solids or liquids indicate that the primary risk is from airborne pollution, as gas, vapour, liquid droplets or particulates/powders. The hazard may be transient or persistent in the environment. A secondary risk is represented by liquid run-off, where there is the risk of entry into water courses or aquifers.

Potential causes – fire, explosion, leak, or deliberate release

Public health impact may be immediate or delayed onset (risk of undetected small scale pollution leading to late onset problems - eg., groundwater pollution or passing person to person)

Fire (& possibly explosion) may generate unpredictable secondary combinations of compounds through mixing or partial combustion of primary materials. E.g., fire in plastics factory producing airborne chlorine and cyanide compounds.

### 2. Key historical evidence

The major incidents database indicates that a limited number of incidents have been recorded globally, of which the majority were transport accidents. The primary source of risk is therefore considered to be the movement of hazardous materials through Thames Valley, rather than fixed sites in, or adjacent to, our area.

For the purposes of commonality, fixed sites that may pose a risk under Risk Reference Number H12 have been equated to those that fall within the reporting requirements of the COMAH (Control Of Major Accident Hazards) regulations, 1999, and MOD premises, licensed nuclear installations and some other premises.

### 3. Likelihood

<b>Hazard</b>	<b>Outcome description</b>	<b>Likelihood</b>
Biological substance release from a control measure failure	Up to 10 fatalities and serious injuries or offsite impact with up to 1000	<b>1</b>

	casualties	
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#### 4. Impact

##### Summary

Hazard	Outcome description	Impact			
		Health	Social	Env	Econ
Biological substance release from a control measure failure	Up to 10 fatalities and serious injuries or offsite impact with up to 1000 casualties	4	2	1	2

##### Details

<b>Impacts</b>
<b>Primary</b>
Airborne Pollution
Liquid Pollution of ground Water
<b>Secondary</b>
Secondary contamination from person to person

#### 5. Vulnerability and resilience

Static sites controlled through regulation. Transport risks controlled by regulation, but vulnerable to accident or deliberate action at any point on journey. Deliveries to notifiable sites fall under those regulatory requirements only when on site – an accident outside the factory gate is not required to be covered in pre-planning.

#### 6. Mitigation and control measures

Sites falling within the regulations are required to report particulars to the appropriate enforcing authority Site and produce a MAPP. Exemptions include Crown premises, MOD property, and licensed nuclear installations.

#### 7. Overall assessment

Category	Sub-category		
Industrial accidents and environmental pollution	Biological substance release from a control measure failure		
Outcome description	Impact	Likelihood	Risk

Up to 10 fatalities and serious injuries or offsite impact with up to 1000 casualties	<b>2</b>	<b>1</b>	<b>Low</b>
<p><b>Controls in place</b></p> <p>Thames Valley Ambulance Major Incident Plan  Buckinghamshire Fire &amp; Rescue Major Incident Plan  Buckinghamshire County Council Emergency Plan.  Aylesbury Vale District Council Emergency Plan.  Chiltern District Council Emergency Plan.  South Bucks District Council Emergency Plan.  Wycombe District Council Emergency Plan.  Milton Keynes Major Incident Guide  South Central Ambulance Service NHS Trust Major Incident Plans  Royal Berkshire Hospital NHS Trust Major Incident Plan  Heatherwood &amp; Wexham Park Hospitals NHS Trust Major Incident Plan  Berkshire Healthcare Trust Major Incident Plan  Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals  Buckinghamshire Hospitals NHS Trust Major Incident Plan  Buckinghamshire Primary Care Organisations Major Incident Plan  Buckinghamshire Mental Health Trust Major Incident Plan  Milton Keynes Hospital NHS Trust Major Incident Plan  Oxford Radcliffe Hospitals NHS Trust Major Incident Plan  Nuffield Orthopaedic Clinic Major Incident Plan  Oxfordshire Primary Care Organisations Major Incident Plan  Oxford Mental Health Trust Major Incident Plan  South Central Strategic Health Authority Major Incident Plan  Berkshire Integrated Emergency Planning Structure  Wokingham District Council Emergency Plan  Reading Borough Council Emergency Plan  West Berkshire Council Emergency Plan  Bracknell Forest Borough Council Emergency Plan  Royal Borough Council of Windsor and Maidenhead Emergency Plan  Slough Borough Council Emergency Plan  Royal Berkshire Fire &amp; Rescue Major Incident Plan  Oxfordshire County Council Emergency Plan  Thames Valley Police Emergency Procedures Manual  ACPO Emergency Procedures Manual</p>			

### **Additional risk treatment required**

1. Confirmation of dissemination of reported site information to appropriate Category 1 responders.
2. Identification of principal transport hazards (air, rail, road, water) –
  - Destination in TV area; transiting through TV area; originating in TV area.
  - Identification of principal transport choke points where incident could create abnormal impact – e.g., transport node where road, rail and air interchanges are coterminous (Daventry International Rail Freight Terminal, Heathrow/M4/M25, etc).