

Hazard/threat category	Sub-category
Widespread contamination of the food supply chain.	1. Industrial accident (chemical, microbiological, nuclear) affecting food production areas, 2. Contamination of animal feed, Incidents arising from production processes. 3. Incidents arising from production processes.
Hazard and threat description, plus scale	Risk reference number
Food production/marketing implications depending on scale and area affected. Potential direct animal and consumer health effects including possible fatalities and casualties. Consumer confidence affected leading to lost markets and panic buying	H14
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1. Overview of hazard or threat

This Risk Assessment is predicated on the basis of medium to large food processing and/or manufacturing facilities only.

Improved production and quality control measures within the food supply industry have significantly reduced the probability of a major contamination incident, however, continual rationalisation within the remaining supply and manufacturing sectors could increasingly result in short-term supply shortages should a serious contamination event occur.

2. Key historical evidence

With the exception of the Chernobyl incident, there appears to be no empirical evidence of any similar accident having such a profound or widespread effect within the food supply industry.

'Localised' industrial accidents or other events, resulting in the distribution of harmful contaminants can and do result in localised crop contamination/ losses and/or the temporary suspension of processing facilities due to the risk of cross contamination.

Industrial Accidents – Food Production (Chemical - /Microbiological)

The type and range of potential accidents and incidents within the food supply industry that may result in a major contamination effecting animal or public health are potentially many and varied; however they may be categorised as follows:

Wilful or accidental non-observance of statutory regulations, guidelines, best practice etc.

Failure to operate and/or maintain equipment to the required standard,

Failure to institute and/or adhere to hygiene and/or quality control standards,

Failure to store raw materials and/or products correctly.

Generally a failure in respect of one or more of the above will be detected by the manufacturer or one of the statutory food monitoring agencies leading to a complete recall of batch of product concerned. The food industry issues hundreds of product recalls each year with only emotive instances such as the Sudan 1 food dye and Perrier Water incidents coming to public attention.

Animal Feed Contamination

The BSE contamination of the late 1980's and early 1990's bears testament to the potential scale, nature and duration of a major incident and the effects of such an incident on consumer confidence.

1989 – United Kingdom. Lead contaminated cattle feed
(Source – imported maize gluten).

1998 – Germany. Dioxins found in milk, localised within Baden-Wurtemberg

1999 – France. Rendering Plant sludge incorporated into animal feed

1999 – Belgium Dioxins and PCB's, contaminated chicken feed

Likelihood

Hazard	Outcome description	Likelihood
Major contamination incident with widespread implications for the food chain, arising from: 1. Industrial accident affecting food production areas, 2. Contamination of animal feed, Incidents arising from production processes.	Food production/marketing implications depending on scale and area affected. Potential direct animal and consumer health effects including possible fatalities and casualties.	4
	Consumer confidence affected leading to lost markets and panic buying.	4
		4

3. Impact

Summary

Hazard	Outcome description	Impact			
		Health	Social	Env	Econ
Major contamination incident with widespread implications for the food chain, arising from: 1. Industrial accident affecting food production areas 2. Contamination of animal feed 3. Incidents arising from production processes	Food production/marketing implications depending on scale and area affected. Potential direct animal and consumer health effects including possible fatalities and casualties.	2	1	3	3
	Consumer confidence affected leading to lost markets of panic buying	2	1	2	3
		2	1	1	3

Details

Impacts
Primary
Widespread contamination incident - loss of food production sources.
Localised contamination incident – processing/manufacturing plant loss.
Secondary
Possible short term foodstuff shortage - vegetables, meat etc
Possible short/medium term shortage – convenience foods

4. **Vulnerability and resilience**

The larger UK animal feed and food companies per se abide by their prescribed industry standards, regulations and inspection regimes in order to safeguard and protect their commercial interests.

5. **Mitigation and control measures**

Routine microbiological and chemical analysis of raw materials and in the case of processed food, finished products serve to eliminate or mitigate the potential transmission of microbial-based infections.

6. **Overall assessment**

Category	Sub-category		
Industrial accidents and environmental pollution	Major contamination incident with widespread implications for the food chain, arising from 1. Industrial accident affecting food production areas 2. Contamination of animal feed 3. Incidents arising from production processes		
Outcome description	Impact	Likelihood	Risk
Major contamination incident with widespread implications for the food chain, arising from:			
1. Industrial accident affecting food production areas	2	4	Medium
2. Contamination of animal feed	2	4	Medium
3. Incidents arising from production processes	2	4	Medium
			Overall Assessment Medium

Controls in place

Health Protection Agency/Food Standards Agency (HPA/FSA)

These agencies are responsible for regulating and overseeing hygiene and infection control compliance monitoring within the food supply industry.

Individual suppliers, manufactures and retailers also operate their own additional and supplementary analytical inspections and quality control checks.

Local Authority Environmental Health Inspectors undertake food hygiene and infection control compliance and monitoring inspections within the wholesale and retail food sectors within their respective administrative areas.

Local Authorities

Milton Keynes Major Incident Guide.

Buckinghamshire County Council Emergency Plan.

Oxfordshire 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.

Slough Borough Council Emergency Plan.

Royal Borough of Windsor and Maidenhead Emergency Plan.

Wokingham District Council Emergency Plan.

Bracknell Forrest Borough Council Emergency Plan.

Reading Borough Council Emergency Plan.

West Berkshire Council Major Incident Plan

Ambulance Service

South Central Ambulance Service NHS Trusts Major Incident Plan.

Health

Oxfordshire, Royal Berkshire & Two Shires Ambulance NHS Trust Major Incident Plans

Royal Berkshire Hospital NHS Trust Major Incident Plan

Heatherwood & 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

Thames Valley Strategic Health Authority Major Incident Plan

Environment Agency Plans & Guides

Environment Agency Incident Management Plans.

Environment Agency 24/7 Incident Response.

Others

Thames Valley Police Emergency Procedures Manual

ACPO Emergency Procedures Manual

Additional risk treatment required

None.

