

## Discounted Risks

There are a number of risk categories that do not relate to Staffordshire and are therefore not included in this register. Those risks and the reasons why they have been discounted are as follows:

Serial Number	Risk reference No.	Risk category	Sub Category	Outcome Description	Why discounted in Staffordshire
1	H1	Industrial Accidents & Environmental Pollution	Fire or explosion at a Gas LPG or LNG Terminal (or associated onshore feedstock pipeline) or flammable gas storage.	Up to 3km around site causing (from 50) up to 500 fatalities and (150 to) 1500 casualties. Gas terminal event likely to be of short duration once feed lines are isolated; event at a storage site could last for days if the explosion damaged control equipment. Gas shortage not expected but some disconnections of intensive users. Disruption to transport services (road and rail) locally for up to a week and to provision of health services locally	There are no realistically foreseeable circumstances whereby this risk could occur in Staffordshire, involving such a number of casualties and /or fatalities.  Associated risks of an explosion are covered by HL1
2	H2	Industrial Accidents and Environmental Pollution	Fire or explosion at an onshore ethylene gas pipeline	Up to 3 km around site causing up to 500 fatalities and 1500 casualties	This scenario is not foreseeable in Staffordshire Resilience Forum (SRF) area
3	H3	Industrial Accidents and Environmental Pollution	Fire or explosion at an oil refinery	Up to 3 km around site causing up to 500 fatalities and 1500 casualties. Depending on the location and size of the release, the fire could burn for several days.	No oil refinery in Staffordshire or within 3km of its border.
4	H6	Industrial Accidents and Environmental Pollution	Fire or explosion at an offshore oil/ gas platform	Local to site causing up to 200 fatalities and hospitalising up to 200 people	No offshore pipelines in the SRF area.
5	H8	Industrial Accidents and Environmental Pollution	Very Large Toxic Chemical Release	Up to 10km from site causing up to 2000 fatalities and up to 10,000 casualties. Toxic release could be due to loss of containment of chlorine, or a number of other chemicals, eg, Anhydrous Hydrofluoric Acid, refrigerated Ammonia, Sulphur Di-oxide (or Tri-oxide) gas.	Whilst a release of toxic material as described above always has the potential to take place and for the effects to be experienced up to 10km from point of release, this is unlikely in Staffordshire due to the size of the manufacturing base being small when compared to those in Liverpool or Cleveland. The sites that could impact on Staffordshire include SI Group at Four Ashes and Kingsbury Oil Depot (Warwickshire – 3km from County boundary) both of which would not impact on this scale. Based on this information H8 is not foreseeable in Staffordshire and this risk is more appropriately considered under H9.

6	HL8	Transport Accidents	Fire, flooding, stranding or collision involving a passenger vessel in or close to UK waters or on inland waterways leading to the ship's evacuation	Up to 50 fatalities and 300 casualties	No coastline in the SRF area. Whilst there is an extensive canal network in the SRF area, an incident of this magnitude is not foreseeable given the profile of the waterway network
7	H10	Industrial Accidents and Environmental Pollution	Radioactive substance release from a nuclear reactor	The consequences of an accident at a nuclear reactor are a release of radioactive material. This release could have local, regional, national and international implications, with up to 10 immediate deaths estimated on site, and with long term casualties being estimated as being of the order 1500	No sites within or near to Staffordshire.
8	HL13	Transport Accidents	Maritime accident or deliberate blockade resulting in blockage of access to key port, estuary, maritime route for more than one month	Loss of port is likely to have an initial wider impact, but will quickly reduce as shippers seek alternative ports or methods of shipping. Economic impact on local dependent businesses.	No coastline or maritime port in the SRF area.
9	H15	Industrial Accidents and Environmental Pollution	Maritime pollution	Release of 100,000 tonnes of crude oil into the sea, polluting up to 200km of coastline	No coastline in the SRF area.
10	HL16	Severe Weather	Local coastal / tidal flooding (affecting more than one region)	Sea surge, spring tides, gale force winds, heavy rainfall affecting more than one region, some defences overtopped or failing at multiple locations. Flooding of 1000 to 10,000 properties for up to 14 days. Up to 20 fatalities and 300 casualties and up to 200 missing persons. Up to 50,000 people (including tourists) in coastal villages and towns evacuated from flooded sites. People stranded over a large area and up to 5,000 people in need of rescue. Up to 10,000 people needing assistance with sheltering for up to 12 months. Multi-agency response invoked, possible large scale evacuation required. Suddenness of failure of defences would not be possible to predict. Tidal inundation would be rapid and wave impact would cause structural damage to properties. Impact on infrastructure includes widespread disruption for 7 -14 days, salt damage, road and bridge damage, debris and contaminated water supplies and pollutants from affected businesses. Rural impacts include widespread livestock carcasses, waterborne disease. Sewage treatment works flooded.	No coastline and not foreseeable in the SRF area.

				Numerous properties destroyed. Many more uninhabitable for 12 months.	
11	HL17	Severe Weather	Local coastal / tidal flooding (in one region)	Sea surge, high tides, gale force winds, affecting the coastline and one region, a defence system overtopped or failing at a single location. Localised impact with infrastructure affected and up to 1000 properties flooded for up to 14 days. . Up to 10 fatalities and 150 casualties and up to 100 missing persons. Up to 20,000 people (including tourists) in coastal villages and towns evacuated from flooded sites. People stranded over a large area and up to 2,000 people in need of rescue. . Up to 3,000 people needing assistance with sheltering for up to 12 months. Multi-agency response invoked with some local evacuation and cordoning off of affected areas. Tidal inundation would be rapid and wave impact would cause structural damage to properties. Impact on infrastructure includes localised disruption for up to 7 days, salt damage, road and bridge damage, debris and contaminated local water supplies and pollutants from affected businesses. Rural impacts include livestock carcasses, waterborne disease. Some properties destroyed and others uninhabitable for 12 months.	No coastline and not foreseeable in the SRF area.
12	H19	Severe Weather	Flooding: major coastal and tidal flooding affecting more than two UK regions	Major sea surge, tides, gale force winds and potentially heavy rainfall. Many coastal regions and tidal reaches of rivers affected. Excessive tide levels and many coastal and/or estuary defences overtopped or failing (breaches). Drains 'back-up'. Inundation from breaches in defence systems would be rapid and dynamic with minimal warning and no time to evacuate. Inundation from overtopping of defences would allow as little as 1 hour to evacuate. Widespread structural damage. Flooding of up to 300,000 properties (homes and businesses) for up to 14 days. People stranded over a large area. Up to 150 fatalities, 2000 'missing' persons ("missing" means: not accounted for during	No coastline and not foreseeable in the SRF area.

				the first 48 hours, before Police can reunite with family or friends) and 2000 casualties. Up to 400,000 evacuees (the people requiring assistance with evacuation is less - 130,000. However people may be asked by Police to evacuate from areas that will be cut off due to flood water as well as those areas that are at risk of actual flooding). Up to 40,000 people in need of rescue or assistance in-situ over a 36 hour period.	
13	H21	Severe Weather	Flooding: Severe inland flooding affecting more than two UK regions	A single massive inland event or multiple concurrent regional events following a sustained period of heavy rainfall extending over two weeks (perhaps combined with snow melt or intense summer rainfall leading to widespread surface water flooding). The event would include major fluvial flooding affecting a large, single urban area. Closure of primary transport routes. Infrastructure failure. Loss of essential services (water, gas, electricity & telecom) to 250,000 homes and business for up to 14 days. Sediment movement and disruption to water supplies. Significant regional economic damage. Across urban and rural areas (with a greater proportion occurring in urban areas) flooding of up to 50,000 properties (homes and businesses) for up to 10 days. Up to 10 fatalities and 500 casualties and 20 missing persons ("missing" means: not accounted for during the first 48 hours, before Police can reunite with family or friends). Up to 55,000 people needing assistance with evacuation. Up to 6,000 people in need of rescue or assistance in-situ.	Whilst the SRF area is at risk of flooding, this particular set of circumstances is not foreseeable owing to the topography of the land and historical data. Although there are more than 10,000 properties at risk from flooding within the area, the nature of the river catchments means that flooding does not occur to this extent over such a prolonged period.
14	HL26	Industrial Accidents and Environmental Pollution	Localised fire or explosion at an onshore ethylene gas pipeline	Up to 1 km around site causing up to 150 fatalities and 450 casualties	This scenario is not foreseeable in Staffordshire Resilience Forum (SRF) area
15	HL27	Industrial Accidents and Environmental Pollution	Localised fire or explosion at an oil refinery	Up to 1km around site, causing up to 150 fatalities and 500 casualties.	No oil refinery in Staffordshire or within 1 km of its border.
16	HL31	Industrial Accidents and Environmental Pollution	Limited radioactive substance release from a nuclear reactor accident	Up to 1 km from site causing up to 50 fatalities and 500 casualties	No sites within or near to Staffordshire.

17	HL34	Transport Accidents	Fire, flooding, stranding or collision involving a passenger vessel in or close to UK waters leading to the ship's evacuation or partial evacuation at sea.	Up to 250 fatalities and 500 casualties	No coastline in the SRF area.
18	HL37	Transport Accidents	Release of significant quantities of hazardous chemicals/ materials as a result of major shipping accident	Up to 50 fatalities and 250 casualties. Significant environmental/ ecological damage.	No coastline in the SRF area. No significant inland waterways carrying shipping of this nature.
19	H42	Transport Accidents	Rapid accident sinking of a passenger vessel in or close to UK waters	500 fatalities and 1000 casualties, potentially with blockage of major sea-lane or port	No coastline in the SRF area.