

A photograph of a fountain with water spraying upwards, set against a stone wall. The water is captured in motion, creating a misty spray. The scene is lit from the side, highlighting the texture of the stone and the individual droplets of water.

Reactor Emergency Plan

Radiation (Emergency Preparedness and Public Information) Regulations (REPIR) 2019

In the event of a radiation emergency at Southampton Docks.

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Context – Why do we need a Plan?

The plan is prepared to comply with the requirements of the **Radiation (Emergency Preparedness and Public Information) Regulations (REPIR 2019)**.

By law SCC provides detailed information to everyone who lives **within approx. 1.5 km (1 mile)**, and outlines information to everyone who lives **within approx. 5km (3 miles)** of the nuclear berth at Southampton Docks.

Leaflets for [businesses](#) and [residents living within 1.5km](#) or [the wider 5km area](#) are available via the [SCC website](#).

The design of nuclear-powered submarines and ships means the likelihood of a radiation accident is extremely remote. There is absolutely no risk of a 'nuclear bomb'-type explosion.

Context – Why do we need a Plan?

Southampton City Council writes the off-site plan and works with partner agencies (emergency services, MOD, health agencies, environment agency and others) to train and test it, so we are always prepared.

The plan aims to minimise the impact on the public by outlining the off-site, multi-agency preparedness, response and recovery arrangements, in the event of the declaration of an Off-Site Nuclear Emergency (OSNE).

Consequences Report

The MOD provide a Risk Assessment to Local Authorities, which covers range of hazards identified as having the potential to cause a radiation emergency. This is known as a Consequences Report.

In accordance with the Consequences Report, an off-site emergency plan is required to secure the protection of the public within an area extending to a distance of not less than 1.5km from a submarine berth.

Risks (Radiation)

Radiation is a form of energy we are exposed to all the time, from natural and man-made sources. In some forms it can be harmful to humans and other living things because it can damage cells. This can result in damage to organs or other long-term effects.

If an accident happened, it probably wouldn't affect people more than half a kilometre (500 yards) from the vessel, and because of the size of Southampton Docks this would probably only affect people within the immediate docks area.

Detailed Emergency Planning Zone (DEPZ)

The **Detailed Emergency Planning Zones (DEPZs)** for the Southampton operational berth has been determined by Southampton City Council respectively based on **MOD Consequence Reports**.

The **DEPZ** around the Southampton operational berth covers multiple local authority areas:

Southampton DEPZ

Southampton City Council

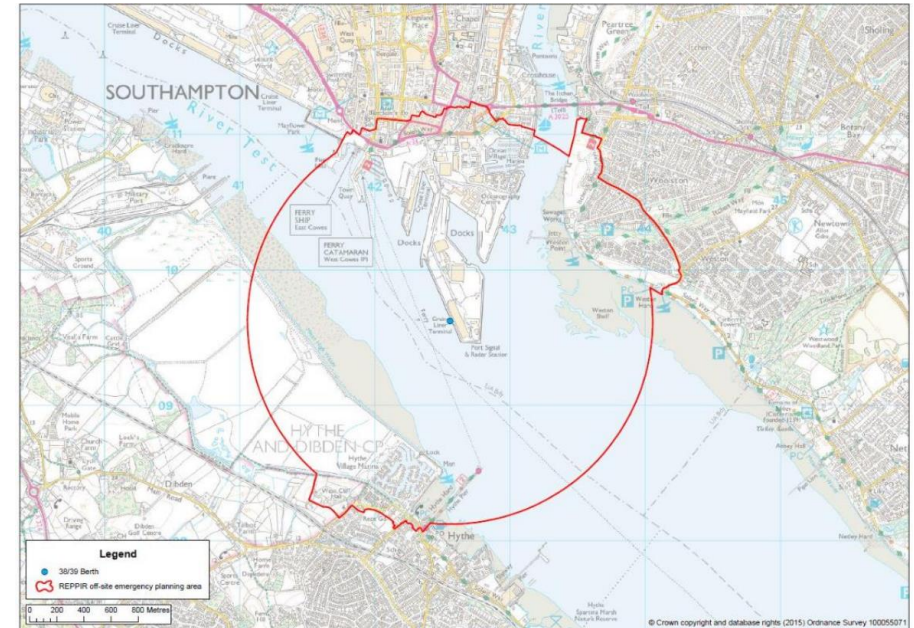
New Forest District Borough Council

Hampshire County Council

Detailed Emergency Planning Zone (DEPZ)

Where detailed emergency plans and public information arrangements are required is referred to as the **DEPZ** area and **extends to a minimum of 1.5 km from the centre point of the operational berth.**

The **DEPZ** extends in all directions but following an accident **it is anticipated that any requirement for extending urgent protective actions would be confined to the downwind areas only**, unless monitoring indicates a reduced or increased area at risk.



The boundary follows the inner edges of roads, natural boundaries and distinctive pathways on land, and with a radius of 1.5 km across all marine areas.

Outline Planning Zone (OPZ)

The **Outline Planning Zones (OPZs)** for the Southampton operational berth has been determined by the **Secretary of State for Defence** at 5km.

The **OPZ** extends in all directions around the **DEPZ** but following an accident it is anticipated that any requirement for extending urgent protective actions would be confined to the downwind areas only, unless monitoring indicates a reduced or increased area at risk.

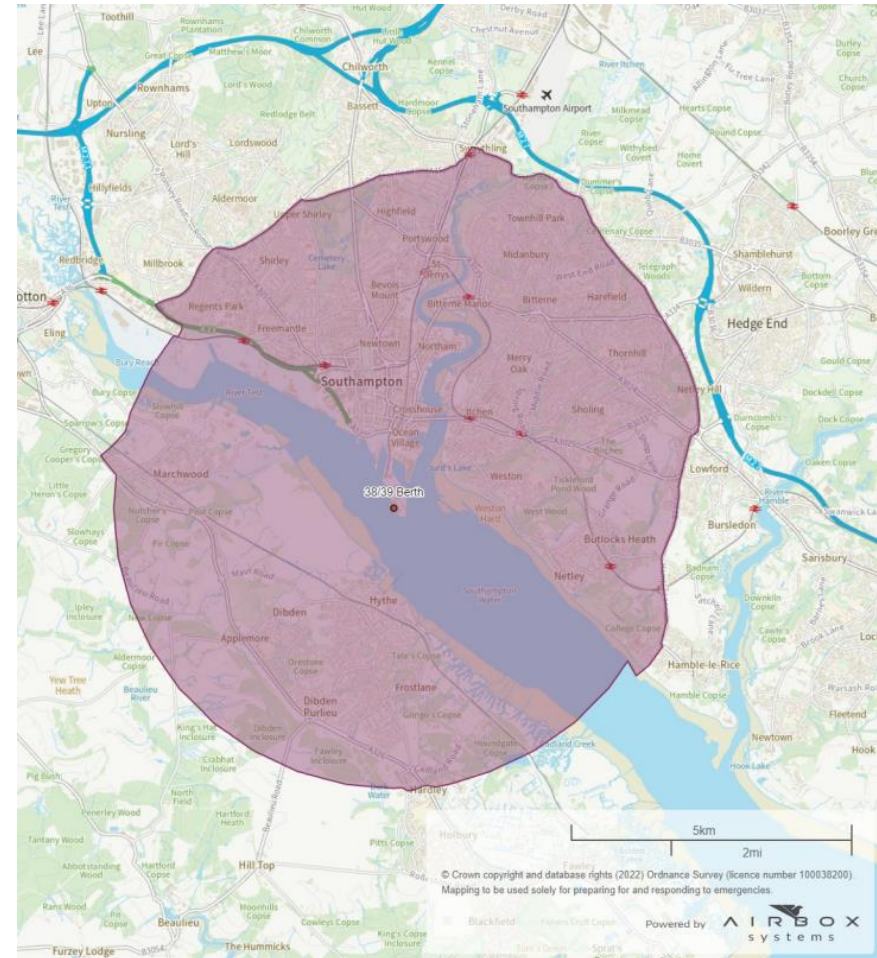
Outline Planning Zone (OPZ)

For the Southampton operational berth the **OPZ distance extends to 5km** in all directions and uses the same natural boundaries approach as the **DEPZ**.

The **OPZ**, outside the **DEPZ**, up to 5km, includes the following local authorities:

Southampton OPZ

- Southampton City Council
- New Forest District Council
- Eastleigh Borough Council
- Hampshire County Council



Response

You will know if there is a radiation emergency because **the police will tell you, or you will hear or see a news announcement**. A portable siren will also be used – a rising and falling wailing note.

In response to a radiation emergency, **Urgent Protective Actions** are taken (depending on the circumstances) and can include **taking Stable Iodine Tablets (SITs), Sheltering and Evacuation**.

Stable Iodine Tablets (SITs)

The administration of **Stable Iodine Tablets (SITs)** is a mitigation measure and provided to members of the public within 1.5km, downwind.

It is administered in **tablet form** and is carried out to **reduce or prevent uptake of radioactive iodine (radioiodine) by the thyroid**, by saturating the thyroid with iodine which is not radioactive.

The optimal period of administration of stable iodine is **less than 24 hours prior to, and up to 2 hours after**, the expected onset of exposure.

SITs are delivered at declaration of an Off-Site Nuclear Emergency (OSNE), when there is no confirmed radiation hazard or release.

Shelter

The council and emergency services will need to consider intervention plans for:

The **potential distribution of food and welfare supplies** to sheltering residents, workers, visitors, education establishments and closed communities.

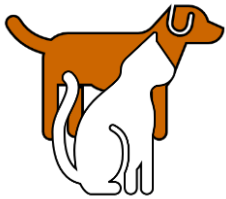
Consider advising retail, commercial and industrial properties in the downwind zone to close and evacuate until the emergency is over.

Specialist needs for more vulnerable people who require support such medication, essential care and meals on wheels.

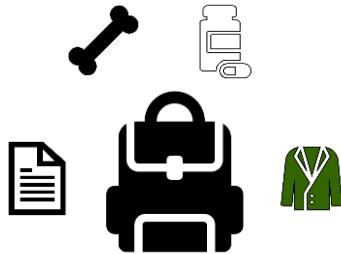
Non-related accidents, serious illness and emergency protection interventions which require people to be removed from their shelter location.

Evacuation

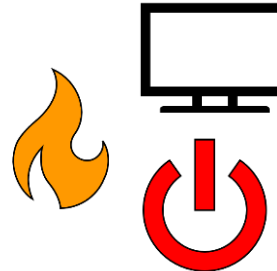
The decision to evacuate the affected downwind area from the release site is based on an assessment of risk to public health from the release with assessment of the potential detriments this could bring about.



Get your **family** and **pets** together.



Get a **large bag or suitcase** and pack important things including **warm clothes and bedding**, any **specialist food and medicine**, **private documents**.



Make sure **fires are out** and that **cookers, ventilation equipment, fans, TVs, electric fires and other appliances are switched off and unplugged**

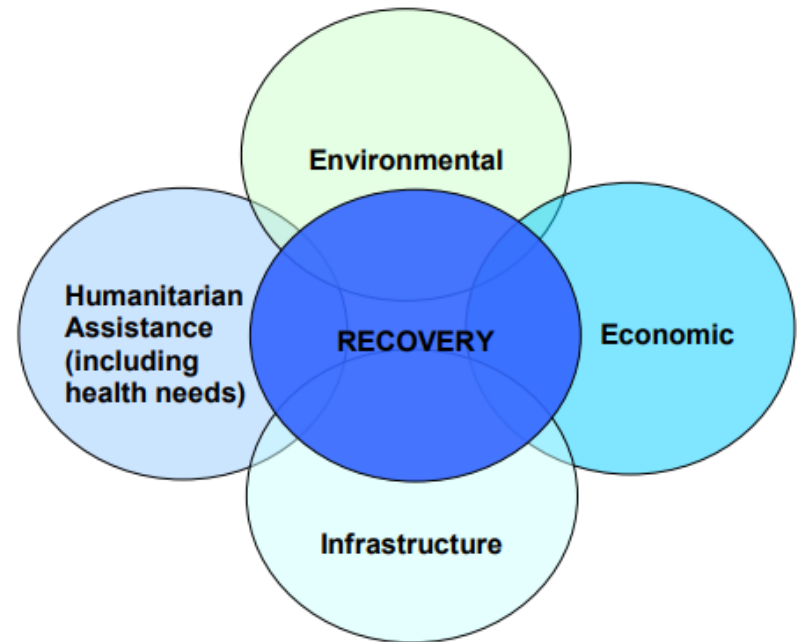


Lock up your house and any other **buildings and leave**.

Transition to Recovery

Recovery is an integral element of emergency management:
it is the period when less urgent protective actions are implemented to protect the public from longer term, chronic risks.

Recovery activity may be the initial steps towards longer term and more ambitious regeneration projects, as the aftermath of an emergency can present the opportunity to regenerate a community or location.



Transition to Recovery

The response to a nuclear emergency will progress at varying rates depending on the combination of challenges presented by the event and the capability of the responding organisations to deal with them. This means response and recovery actions may occur simultaneously in the same or different geographical locations.

Recovery milestones (to measure and review progress) include:

- Displaced people returned to permanent accommodation
- Public services returned to agreed levels
- Utilities functioning at normal capacity
- Transport infrastructure available and running normally
- Local businesses trading at normal levels
- Tourism re-established

Remediation

Following a radiation incident, food and water may be contaminated, and contamination may occur in inhabited areas.

Actions taken to clean up the contamination may result in areas being restricted, material being removed and alternative safe sources of food and water being found. Working with members of the public, business owners, and organisations is an important step to assess and limit potential impacts.

Remediation takes place in phases:

Phase	Actions
Days	Prompt containment of contamination and the recovery of items
Weeks	Treatment of the heaviest or most significant contamination
Months	Reduction of environmental contamination to acceptable levels

Contact

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