



Please read this leaflet and then keep it somewhere you can find it

REPPIR

RADIATION EMERGENCY PREPAREDNESS AND PUBLIC INFORMATION REGULATIONS

What to do in the event of an emergency at AWE



Detachable card overleaf.
Please keep safe

This leaflet has been developed in collaboration with West Berkshire Council, the lead authority for coordinating the development of the AWE Off-Site Emergency Plan

About AWE

AWE plc is the company that is licensed by the Office for Nuclear Regulation (ONR) to operate AWE sites at Aldermaston and Burghfield on behalf of the Ministry of Defence. To learn more go to www.awe.co.uk






AWE is responsible for maintaining the UK's nuclear warhead stockpile and providing expertise to UK Government agencies and departments for National Nuclear Security through:

- research
- design
- manufacture
- in-services support
- decommissioning of warheads.

Both the Aldermaston and Burghfield sites are large industrial complexes. In addition to materials normally used in industry, we also handle high explosives and radioactive substances, under carefully controlled conditions.

We have rigorous emergency response procedures. We regularly exercise these procedures both internally and with emergency services and other responders including the local authorities.

What to do in the unlikely event of a radiation emergency

	Go in	Go indoors and follow the advice below.
	Stay in	Close and stay away from all windows and doors. Damp down or put out fires and turn off any fans that could draw in air from outside.
	Tune in	Tune in to local radio, TV channels, news websites, the AWE website and Twitter account @AWE_plc which will give further information or instructions, including updates on schools.
	Don't use your landline	Don't use your landline phone. This will help to keep the phone lines clear to use for emergency calls. Don't phone the emergency services unless there is a separate emergency.
	Don't leave the area	Don't leave the area unless told to do so by the emergency services. You will be much safer indoors.

KEEP THIS CARD SAFE

What to do in an emergency at AWE

What emergency could happen?

A radiation emergency could occur at AWE if a significant event results in an uncontrolled fire or explosion where radioactive materials are being handled. This could potentially result in radioactive particles being released.

What cannot happen

- A Chernobyl type reactor disaster. There is not a reactor at either the Aldermaston or Burghfield sites.
- A nuclear bomb type explosion. The safety systems and warhead designs cannot be overridden.

What is radiation, radioactivity and radiation dose?

We all generate radiation using microwaves to cook, radio waves for communication, radar for navigation and x-rays for medical use.

We are exposed to ionising radiation all the time, mostly from natural sources. It is all around us – in the water and in our food. Our bodies also contain naturally occurring radioactivity.

Radiation dose

The level of radiation a person is exposed to (radiation dose) is measured in units called millisieverts (mSv). The average annual radiation dose from all sources of radiation within the UK is estimated at 2.7 mSv.

It is estimated that 85% of the annual radiation dose in the UK is naturally occurring and 16% comes from medical sources such as x-rays. The fall-out from past nuclear weapons tests and incidents such as Chernobyl accounts for 0.2% and authorised discharges from the nuclear industry (including AWE) totals much less than 0.1%.

In parts of Cornwall, the annual dose from radon gas from rocks can be up to 6.8 mSv. Around Aldermaston and Burghfield, where the soil is mostly chalk and clay, the total annual dose, including from our operations, is lower than the national average at around 2.2 mSv a year.

A comparison of doses from different sources and their effects are shown below.

mSv	Example
0.001	Dose from eating two Brazil nuts (from the naturally occurring radioactive content)
0.004	Average annual dose from past nuclear weapons testing
0.01	Average dose from a flight from the UK to Spain
0.01	Highest annual dose to the public from AWE operations
0.02	Single chest x-ray
0.3	Maximum annual dose allowed from a single nuclear site
0.4	Average annual dose from all medical radiation
1	Average annual dose from naturally occurring radon in homes
2	Average total annual dose from natural radiation
5	Trigger level under REPPiR for anyone downwind to take shelter in a building
8	Average annual dose from all sources of radiation in Cornwall
10	Action level for naturally occurring radon in homes
20	Annual legal worker dose limit
500	Threshold for nausea and reduction in white blood cells

What could happen to you?

Most of the hazards from a radiation emergency involving the release of radioactive material at AWE would come from alpha radiation.

- Alpha radiation cannot penetrate the outer layer of the human skin, a single sheet of paper or a pane of glass.
- The hazard from alpha radiation comes from if you eat or breathe in radioactive dust, therefore it's important to stay indoors.
- There will be no immediate health effects caused by release of radioactive material on members of the public following a serious incident at AWE.

What is being done to protect you?

AWE is heavily regulated with frequent site inspections by regulators, including the Office for Nuclear Regulation and the Environment Agency.

There are lots of precautionary measures in place at the AWE sites to prevent a radiation emergency taking place.

The Emergency Planning Area (EPA), determined by the Office for Nuclear Regulation, is a land area surrounding the centre of AWE Aldermaston and AWE Burghfield. People in the EPA may be advised to take shelter in the unlikely event of a radiation emergency that involves an off-site release of radioactive material.

What can you do to be prepared?

You should make sure you:

- know what to do if there is an emergency at the AWE site
- have a household emergency plan to make sure you, your family or friends know what to do and are kept safe.

Guidance on how to be prepared and develop plans are available from your local council.

Advice to businesses

What to do if you work at a school, care home or other site which looks after vulnerable people

Education establishments and care homes/assisted living premises should all have their own emergency procedures/ business continuity plans in place regardless of their location. However, those located near AWE (Aldermaston or Burghfield) should include emergency action cards or check lists in their emergency plans to inform people what to do if alerted to a radiation emergency, including:

- a process to alert all staff and occupants to take cover and go inside a building
- holding key information relating to medical/dietary requirements
- a system in place for contacting next of kin
- a system in place to support those sheltering to do so for at least 12 hours
- a prepared information note ready to be issued which may include:
 - what has happened
 - what you have done
 - a message for anyone trying to visit your premises
 - advice about how to contact the premises
 - where the latest information can be found, e.g. social media
 - when the next update will be, and how it will be delivered.

What to do if you're a business within the EPA

All businesses should have a robust emergency plan and business continuity plans in place.

Specific actions for businesses may vary depending on a number of factors, for example, the type of business, the number of staff employed, the number of customers, etc.

Your emergency plan and business continuity plan should include similar action cards or check lists and information as schools and care homes.

How will I know if something has gone wrong?

- **Telephone** – The telephone alerting system would phone you with a pre-recorded message advising you what action to take. (This system only works with standard ‘landline’ telephones and not with mobile phones).
- **Via the media** – You may hear an alert on the local radio or TV.

Notes:

1. If you live close to the AWE sites you may hear site alarm signals. You should never react to these as they are often sounded for testing as part of the routine emergency response exercise programme. In the event of a **REAL** incident the Site Emergency signal at both AWE sites is a repeating descending tone.
2. There are other sites near AWE Aldermaston that also have alarms which can be audible some distance from that site due to its location. You need to be aware this site carries out audible alarm tests including the monthly tests.
3. People in the EPA may be advised to take shelter in the unlikely event of a radiation emergency that involves an off-site release of radioactive material.

How to respond

Following a radiation emergency, your initial response should be to go indoors, unless directed otherwise by the emergency services. You should stay indoors and tune in to a local radio or television station for further instructions and updates.

Local radio and TV stations to tune	
Heart Berkshire	97.0 and 102.9 MHz FM
BBC Radio Berkshire	95.4 and 104.1 MHz FM
The Breeze (Basingstoke and North Hampshire)	107.6 MHz FM
The Breeze (Newbury)	105.6 and 107.4 MHz FM
BBC Radio Solent (Hampshire)	96.1 and 103.8 MHz FM
Jack FM Berkshire	107 MHz FM
BBC South	
ITV Meridian	

You will be much safer indoors. If you are outdoors you are more likely to be exposed to radioactivity.

There will normally be no need for urgent evacuation. In the highly unlikely event that you are told to leave the area, you will be directed where to go for assistance and information.

Frequently asked questions

1. If a radiation emergency did happen, how would I know who is at risk?

Specialist computer modellers would be used to identify those at risk using scientific calculations to take into account factors such as wind and weather. AWE would alert the public via the telephone alerting system and local television and radio.

2. What about vulnerable people within the area?

Responding agencies, including local authorities and health providers, would make appropriate arrangements to provide care for the vulnerable groups in the area.

3. Will the water be safe to drink?

One of the first things the Environment Agency are required to do during the initial stages of an incident is to advise the water companies in the affected areas. In most cases the water will be safe to drink. Water companies will often have sufficient storage of uncontaminated water, and water companies are likely to extract from a safe supply of water if an existing supply is suspected to be contaminated.

4. What if I am out when an incident happens and I can't get home?

If you are unable to enter the area due to an incident, you will be directed to a safe area organised by the local authority.

5. What about pets?

Keep all pets indoors that have not been outside at the time of the emergency; those that have been outside should be kept in a separate room or building.

6. What advice will be given to farmers?

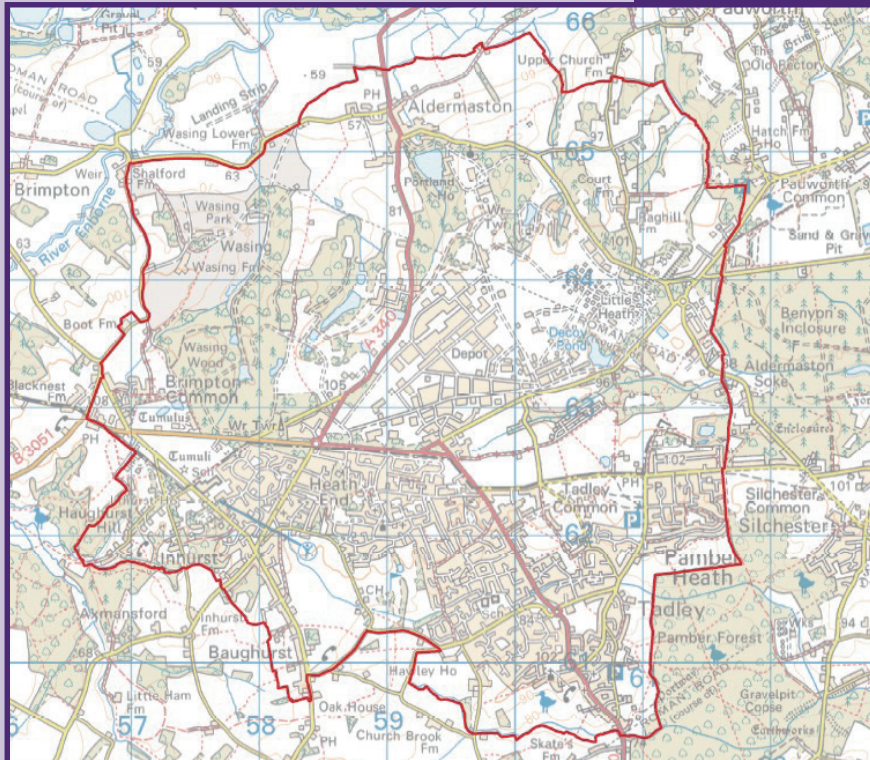
Advice would be given by the Food Standards Agency on the consumption, sale and marketing of food within a defined area. The Department of Environment, Food and Rural Affairs (DEFRA) would give advice to farmers about animals that are left outdoors.

7. How will I know when it is safe?

Notification of the "All-Clear" would be given by the police using the local media.

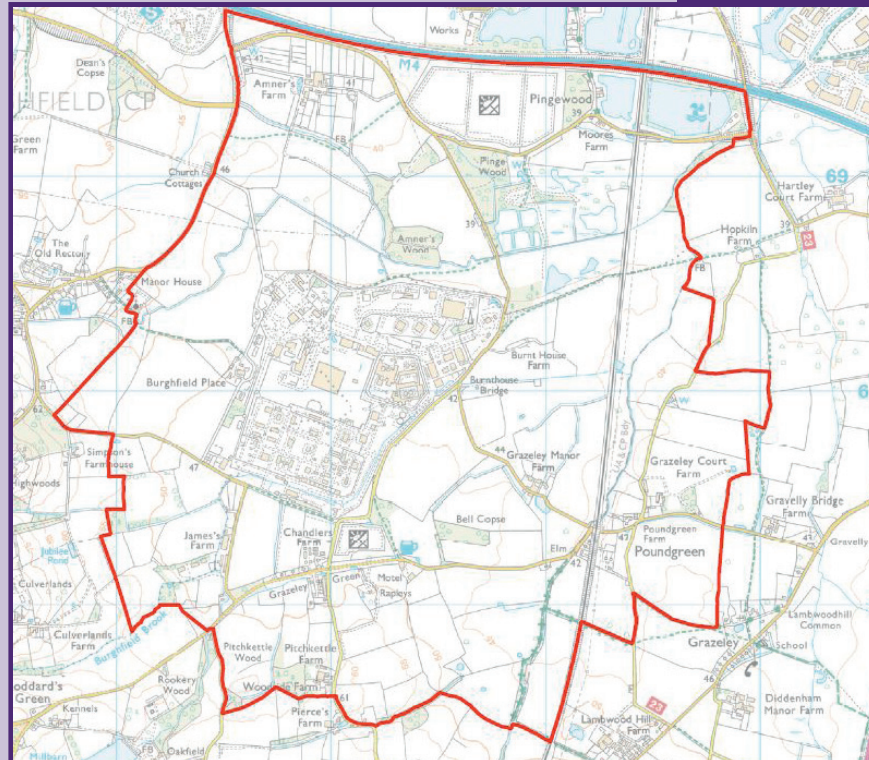
Emergency Planning Areas for Aldermaston and Burghfield

ALDERMASTON




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BURGHFIELD



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Legend  REPIR Off-Site Emergency Planning Area

What to do in an emergency at AWE

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