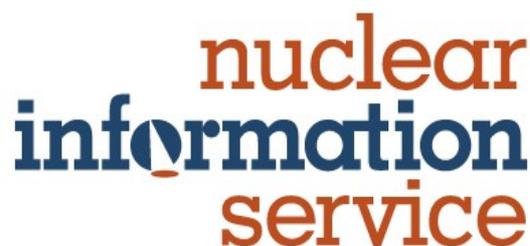


## A briefing for local residents from Nuclear Information Service



### The Ministry of Defence Submarine Dismantling Project – what it means for you

The Ministry of Defence (MoD) is currently seeking public opinions on selection of a site for the storage of radioactive waste from decommissioned nuclear powered submarines. Five sites have been shortlisted as 'interim storage sites' for the waste, including the Atomic Weapons Establishment (AWE) sites at Aldermaston and Burghfield. This briefing gives further information about the proposals and tells you how you can have your say.

The Ministry of Defence submarine dismantling project will oversee the disposal of 27 Royal Navy nuclear powered submarines that will have left service by the mid 2030s. This includes 19 submarines that have already left service and are stored afloat at Rosyth and Devonport dockyards awaiting disposal. The highly radioactive spent reactor fuel has been removed from most of the submarines and is stored separately at Sellafield, and will be removed from the remaining submarines before they are dismantled. Other radioactively contaminated components from the submarine reactors, principally the reactor pressure vessels which surround the nuclear core and its cooling system, will be removed from the submarines at Rosyth and Devonport dockyards. The submarines will then be broken up and the uncontaminated parts recovered and recycled as scrap metal at a licensed shipbreaking yard.

The intact reactor pressure vessel and other contaminated materials removed from submarines will be categorised as intermediate level radioactive wastes and precautions will be necessary to manage them safely. The wastes will need to be placed into interim storage while the government designs and builds a national waste repository to handle the nation's radioactive waste. Storage is expected to be necessary for a period of around 40 – 60 years.

MoD has shortlisted five locations as possible interim storage sites for radioactive waste from submarines. These are:

- The Nuclear Decommissioning Authority site at Sellafield, Cumbria
- The Nuclear Decommissioning Authority site at Chapelcross, Dumfriesshire
- The Ministry of Defence site at the Atomic Weapons Establishment, Aldermaston
- The Ministry of Defence site at the Atomic Weapons Establishment, Burghfield
- The Capenhurst Nuclear Services site at Capenhurst, Cheshire

A first submarine will be dismantled as a pilot 'demonstration' at Rosyth and on current schedules this is expected to be completed by around 2019. Assuming the demonstration goes to plan, submarines will be dismantled at a rate of roughly one per year. MoD has promised that no radioactive waste will be removed from submarines until an interim storage site has been agreed and all the necessary planning approvals and permits have been issued.

Once an interim storage site has been selected, the Office for Nuclear Regulation and the Environment Agency will be the main government regulatory agencies responsible for approving the dismantling and waste storage arrangements. Normal local authority planning procedures would apply for construction of the storage facility. If an AWE site was selected as the storage location, MoD would have to submit a planning application to West Berkshire Council, which would consult locally and provide an opportunity for people to object or recommend conditions before making a decision on whether to accept the application.

Once all the necessary permissions have been received, each reactor pressure vessel will be removed intact from a submarine and placed in a specially made protective storage container about the size of a portacabin. The container will then be transported by road from the dockyard to the interim storage site, where it will be stored and monitored in a newly built secure storage facility.

MoD is now consulting widely to gather views on the shortlisted sites and the process and criteria which will be used to compare the sites and make a final choice of storage site for the waste. Local residents in the vicinity of the shortlisted sites are entitled – and encouraged – to give their views on the proposals.

## **What is intermediate level radioactive waste?**

Intermediate level radioactive waste (ILW) from submarine reactors is material which has been in close proximity to the highly enriched uranium fuel which powers the reactor. As well as generating energy, the fuel also generates neutron radiation that causes some of the atoms in the surrounding steel to become radioactive ('activated'). Once the spent fuel has been removed from the reactor, this material will require disposal as ILW. Unlike spent reactor fuel, ILW does not generate heat but its radioactive content is such that shielding is necessary to protect people from the radiation it produces. The radionuclides in ILW from nuclear reactors are long-lived, and therefore the waste must be kept isolated over a long period to protect humans and the environment from its impacts. The government plans to build a geological repository deep underground to hold the UK's high and intermediate level radioactive wastes, but as yet plans for the repository are at an early stage and it will not open until 2040 at the earliest. Until then, waste from nuclear reactors, including submarine reactors, must be held in interim storage at secure sites.

## **How to have your say**

Detailed documents outlining the MoD proposals, together with details of consultation arrangements and events are on the Ministry of Defence website at: <http://tinyurl.com/subdismantling>. The Ministry of Defence is organising a series of exhibitions and workshops locally on the following dates to consult people about its proposals, provide information, and take feedback:

### ***Monday 17 November***

12 noon – 8 pm  
AWE Recreational Society, West Gate, AWE Aldermaston  
Workshops at 1.00 pm, 3.00 pm, and 6.00 pm

### ***Tuesday 18 November***

11.30 am – 7.30 pm  
Burghfield Common Village Hall  
Workshops at 1.00 pm, 3.00 pm, and 6.00 pm

### ***Thursday 20 November***

11.30 am – 7.30 pm  
Community Sports Association, James Lane, Burghfield  
Workshops at 1.00 pm, 3.00 pm, and 6.00 pm

### ***Saturday 22 November***

11.30 – 3.00 pm  
Tadley Community Centre, Newchurch Road, Tadley  
Workshops at 11.30 am and 1.30 pm

### ***Thursday 22 January 2015***

11.30 am – 7.30 pm  
Community Sports Association, James Lane, Burghfield  
Workshops at 1.00 pm, 3.00 pm, and 6.00 pm

## **Friday 23 January 2015**

11.30 – 5.00 pm

Tadley Community Centre, Newchurch Road, Tadley

Workshops at 11.30 am, 1.30 pm, and 3.30 pm

Pre-booking is required for attendance at workshops. To arrange this, and for more information about consultation events, please call 0118 983 9474 or email [sdp@instinctif.com](mailto:sdp@instinctif.com)

As well as attending local events, you can send your views in writing to: [DESSMIS-SDP@mod.uk](mailto:DESSMIS-SDP@mod.uk) or Submarine Dismantling Project, Mail Point 4119, MOD Abbey Wood, Bristol, BS34 8JH. The consultation period will begin on 14 November 2014 and the deadline for receiving comments is 20 February 2015.

## **Some questions to ask**

- Would storage of radioactive waste from submarines at AWE Aldermaston or AWE Burghfield result in an increase in the area of the nuclear licensed site at either site?
- What level of disruption and inconvenience would take place when radioactive wastes from submarines is transported to AWE sites, and how often would this take place?
- What will happen to waste from submarines that the Royal Navy plans to build in future which are not included under the terms of the submarine dismantling programme? Would it also be stored at an AWE site? Could radioactive wastes from other MoD sources also be stored at AWE sites?
- In addition to any wastes from dismantled submarines, will radioactive wastes generated onsite at AWE sites increase as a result of proposals to replace the UK's Trident nuclear weapons?
- Under current plans, when is it expected that radioactive waste from nuclear powered submarines will be moved from the interim storage site to a permanent resting place in a national radioactive waste repository? How great is the risk that the interim storage site will by default become a permanent storage site if the national repository is not built?
- What is the total volume of waste from submarines which would be stored, what is the radioactive content of the waste, and how long will it remain active?
- What risks has MoD identified as resulting from the proposals, and what steps will be taken to mitigate these risks?
- Is AWE Management Ltd an appropriate organisation to take responsibility for managing more radioactive waste, given its recent enforcement record on safety issues and ongoing investigations over failure to meet a legal obligation to treat radioactive waste generated on site? What actions are underway to improve the situation, and what steps will MoD take to deal with the situation if improvements are not made?

## **What we think**

- Nuclear Information Service supports the MoD submarine dismantling project and considers it right that MoD are acting now to deal with the legacy of radioactive waste from nuclear-powered submarines. The issue cannot be ignored and will not go away, and it is our responsibility to deal with the problem, however unwelcome it is.
- We are pleased that MoD is seeking the views of the public before making a decision on an

interim storage site for radioactive waste from decommissioned nuclear powered submarines.

- Ultimately the decision on an interim storage site for radioactive waste from submarines should be made on technical grounds, at the site where safety and security are shown to be greatest and environmental impacts lowest. If it can be proved that an AWE site is the best location for storage of such waste, we would be willing to accept the decision subject to the following provisos.
- There must be no overall increase in risk to the public if a decision is made to store radioactive waste from submarines at an AWE site, which means that existing risks from operations at AWE sites should be reduced in compensation. This could be from halting certain current work at AWE, or by bringing forward the programme for decommissioning redundant buildings at AWE sites.
- A decision to store radioactive waste from submarines for an interim period at an AWE site does not mean that the site can automatically be used a storage site for other radioactive wastes from other sources, and MoD must give specific guarantees on this point.
- There must be effective arrangements for monitoring the impacts of radioactive wastes stored at AWE sites, including opportunities for oversight and scrutiny by local communities. Current arrangements are not adequate and openness and transparency must be dramatically improved before any decision is made to store wastes from submarines at an AWE site.
- Radioactive wastes from submarines are an unwelcome legacy resulting from unwise decisions made in the past. We have not yet identified a method for managing these wastes and under such circumstances it is irresponsible to continue producing them. MoD should not construct any more nuclear-powered submarines until and unless this issue has been resolved.
- Although government policy for the long term management of higher level radioactive wastes is to place them underground in a geological repository, we are not yet convinced that this is the best option and it is not based around proven technology. Questions remain about the feasibility of an underground repository and there is a risk that interim storage arrangements for radioactive waste will be extended indefinitely.

## Who we are

Nuclear Information Service is a not-for-profit, non-government information service which works to promote public awareness and debate on nuclear weapons and related safety and environmental issues.

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