

Introduction

The Submarine Dismantling Project (SDP) is the MOD's programme to deliver a safe, secure and environmentally responsible solution for dismantling 27 defuelled submarines. This involves recycling the bulk of the submarine and safely disposing of the remainder.

The submarine's Reactor Pressure Vessel (RPV) contains Intermediate Level radioactive Waste (ILW) and must be stored for an interim period until it can be processed and sent to a proposed Geological Disposal Facility (GDF) sometime after 2040.

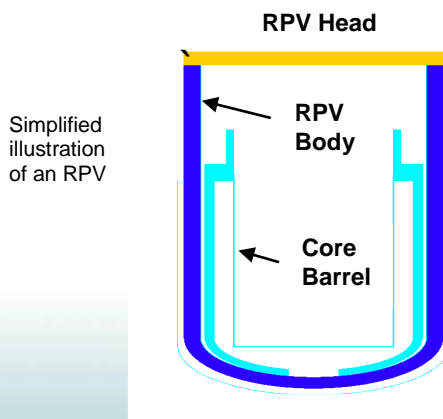
Local Factsheets provide more information on the five shortlisted RPV storage sites (Aldermaston, Burghfield, Capenhurst, Chapelcross and Sellafield) and summarise the results of the Strategic Environmental Assessment (SEA).

This factsheet gives some background on the Sellafield site. The RPV Store proposals are described overleaf.

SDP

Based on SDP's current assumptions, the project plan will involve four main steps:

- The RPV is removed from the submarine and placed in a secure container for transport.
- The RPV and container are transported to the RPV storage site by road.
- The RPVs and containers are safely stored until a GDF is available, sometime after 2040.
- The RPVs are repackaged and sent for size reduction. The different types of radioactive waste arising are sent for disposal.



NDA and Sellafield Site

The Nuclear Decommissioning Authority (NDA) is responsible for managing the effective and efficient clean-up of the UK's nuclear legacy. This includes the first generation of Magnox power stations (of which Chapelcross is one), various research and fuel facilities, and its largest, most complex site, Sellafield. NDA awards contracts to 'Parent Body Organisations' (PBOs) to take ownership of the Site Licence Companies (SLCs) who run the sites.

Sellafield Ltd holds the Nuclear Site Licence at Sellafield. It is the company responsible for safely delivering decommissioning, reprocessing and nuclear waste management activities there on behalf of the NDA. The PBO is owned by Nuclear Management Partners, a consortium comprising URS, AMEC and Areva.

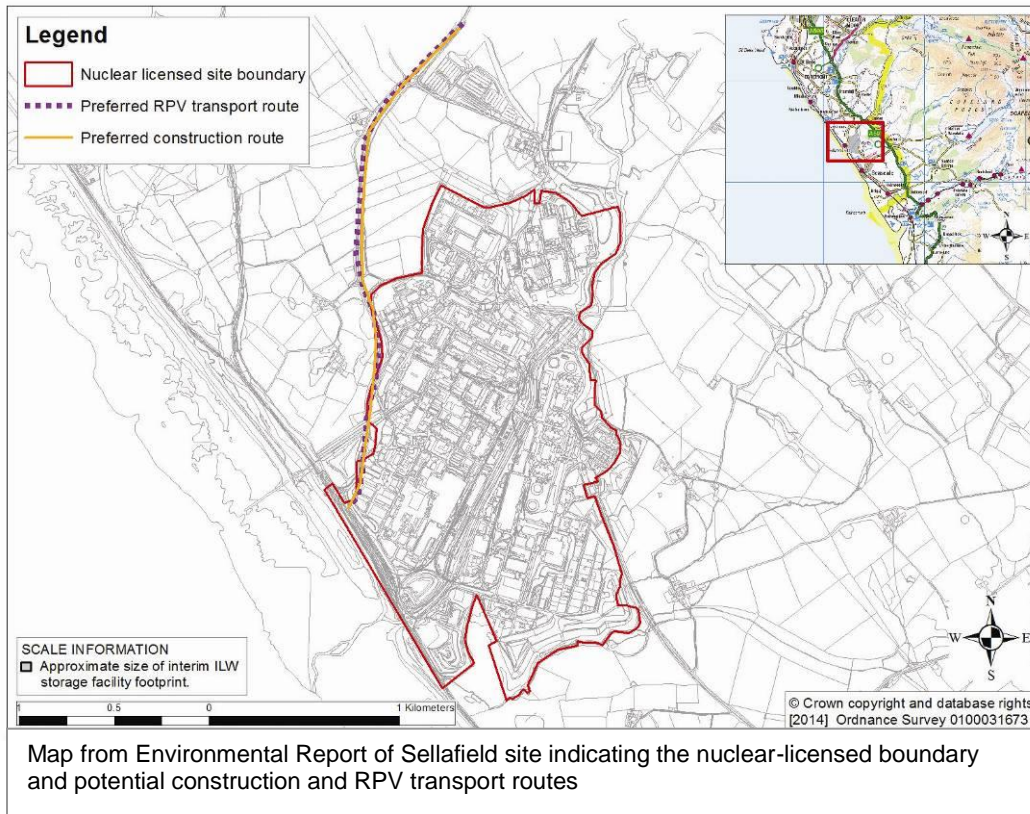
The Sellafield site is situated in Cumbria, on the coast of the Irish Sea, covering approximately 276 hectares. The site was originally constructed in 1942 as Royal Ordnance Factory Sellafield, producing explosives to supply the military during World War II. The site was adapted for nuclear-sector work after the war ended. The site has been owned by the NDA since 2005.

Future Site Plans

The Sellafield site is home to a wide range of interdependent nuclear facilities and operations. These range from hazard and risk reduction to reprocessing and nuclear waste management. The site covers two square miles and over 200 nuclear facilities.

The primary mission for the site is safe, secure site stewardship, with acceleration of risk and hazard reduction. This is an extensive piece of work which stretches out over the next 110 years.





Existing Waste Stores

It is estimated that the eventual decommissioning of Sellafield will result in the generation of 1,260 m³ of High Level Waste, 282,000 m³ of ILW, and 503,000 m³ of LLW, of which a proportion will be diverted away from the Low Level Waste Repository (LLWR) through the use of decontamination and material recovery techniques.

From the 1990s onwards, Sellafield began constructing a comprehensive suite of waste management facilities to treat and dispose of the waste arising from the commercial and decommissioning operations of reprocessing. Further treatment plants and stores will be constructed to enable the safe, effective decommissioning of the Sellafield site.

Treated wastes will be stored on the site until a GDF is available in accordance with UK Government Policy.

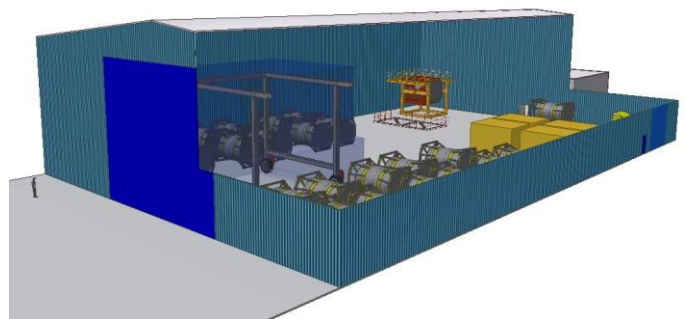
Sellafield Proposals

NDA has confirmed that an RPV Store at Sellafield could be accommodated within the existing nuclear-licensed site. The site map above shows the site boundary. The marker by the scale shows the approximate maximum size of an interim RPV storage facility (3,150m²). A location will be determined in due course should Sellafield be selected as the storage site.

SEA

SDP's Strategic Environmental Assessment (SEA) assesses environmental effects and information on alternatives. It is a major input to site comparison studies. The Environmental Report and Non-Technical Summary are available on the project web pages with the Consultation Document.

The SEA studies were carried out by independent specialist consultants, with some input from site owners and operators, supervised by experts from the MOD's Defence Infrastructure Organisation.



One possible arrangement for an RPV store



Impacts at all sites

Most of the SEA conclusions regarding the potential impact of an RPV store apply to all the shortlisted sites. These are summarised below.

On all sites, there would be minor negative effects from greenhouse gases and energy use for all stages of the project lifecycle though construction, use and eventual decommissioning.

Minor adverse temporary effects are anticipated during construction and decommissioning:

- There is potential for temporary disturbance of habitats and/or wildlife.
- Despite mitigation, there will be some noise and vibration.
- Minor changes to local roads may be required but they are expected to be of minor significance.
- There is some potential for mobilising historic contaminants, depending on the site.
- There may be a temporary visual impact from tall plant (e.g. cranes) and traffic (particularly HGVs).
- There may be minor negative effects on waste generation and the capacity of waste management facilities during construction and demolition.

No significant effects are anticipated in the following areas:

- Minimal or no radiological discharges are currently anticipated. This, together with strict regulation, means there are no likely significant effects on local health and well-being.
- There are no land use change issues.

Impacts at Sellafield

A detailed assessment of potential impacts for an RPV store on this site is contained in the SEA Environmental Report. SEA issues specific to Sellafield are summarised below:

Flood risk zones are outside the developed part of the site. Environment Agency policy is to hold the existing defence line. Future assessment may determine that additional flood risk measures are required for Sellafield, but this decision would not be affected by the presence of an RPV store.

Despite mitigation, construction and decommissioning traffic vibration and dust may affect historic structures. There would be cumulative effects from other infrastructure projects, including the proposed nuclear power station.

Based on the SEA results, the MOD expects the RPV store to have minimal socio-economic impact - either positive or negative - on the local economy or the community around the chosen site.

No significant impacts are anticipated in the SEA Environmental Report on the number and types of local jobs available. Sellafield notes that there is already a massive construction programme at Sellafield being delivered through the supply chain, and additional local employment during construction would not be significant within this wider context.

Local Transport Routes

During both construction and operation, the transport route is anticipated to be from Junction 40 of the M6, along the A66 and then on to the A595.

There may be up to 3 RPV transports in the first year. Based on initial dismantling of the submarines at Rosyth and then those at Devonport, the long-term rate is expected to be around 1 a year thereafter. If there were some parallel work at Devonport and Rosyth, it could be around 2 a year for a few years.

Local Public Consultation

SDP has involved local stakeholders in the development of the Sellafield Public Consultation programme and kept local authorities and other stakeholders up to date with progress through regular meetings with the site stakeholder group.

The project's Public Consultation includes a comprehensive programme of engagement and local and national events. For Sellafield this includes:

- Public exhibitions and workshops at Cleator Moor Civic Hall (17th December 2014 and 28th January 2015).
- Public exhibitions and workshops at The Beacon Museum, Whitehaven (18th December 2014 and 27th January 2015).

There are also two national workshops in January 2015, in Glasgow and Birmingham.



Information on dates and venues will be posted on the project's web pages and also sent directly to local stakeholders and interested individuals known to the project. Advertisements will be taken out in local papers

Online Documents

Online information and documents are available at:

<https://www.gov.uk/government/publications/submarine-dismantling-project-interim-storage-of-intermediate-level-radioactive-waste>

Contact Information

Comments and questions on the SDP project should be directed to the team administering the Public Consultation on behalf of the MOD.

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If you have any concerns about the Public Consultation, or you wish to discuss some other aspect of the project with the SDP project team, you can contact them directly.

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Copeland District Council

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