

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.

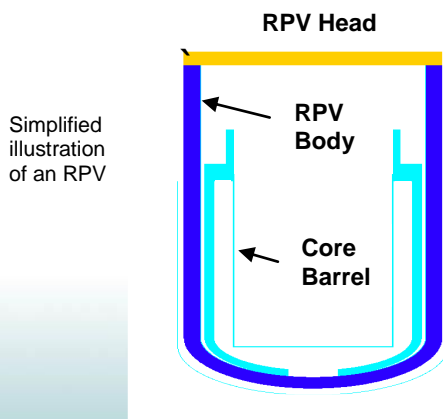
Local Factsheets provide more information on the five shortlisted RPV storage sites (Aldermaston, Burghfield, Capenhurst, Chapelcross and Sellafield) and summarise the results of the Strategic Environmental Assessment (SEA).

This factsheet gives some background on the Chapelcross 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 Chapelcross Site

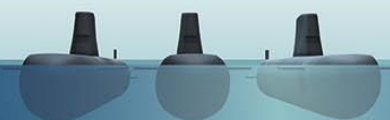
The Nuclear Decommissioning Authority (NDA) is responsible for managing the effective and efficient clean-up of the UK's nuclear legacy. This includes the first generation of Magnox power stations (of which Chapelcross is one), various research and fuel facilities, and its largest, most complex site,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

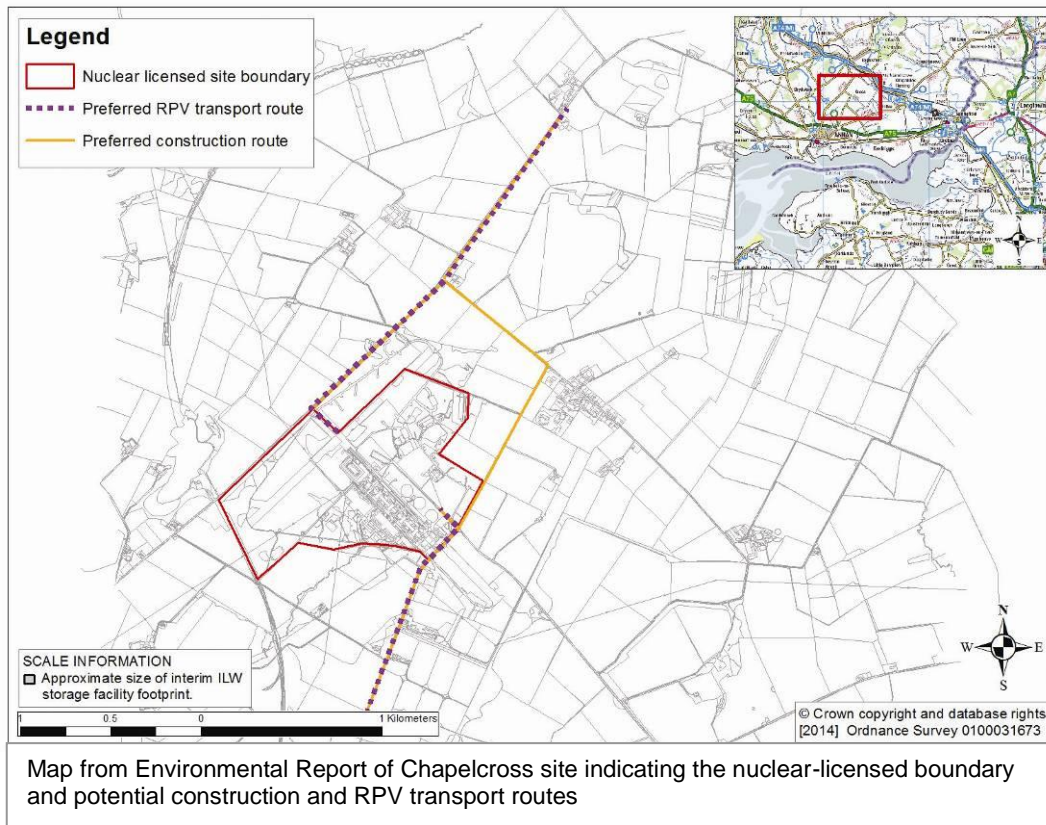
The SLC for Chapelcross is Magnox Ltd. The company is responsible for the management and operations of ten nuclear sites and one hydroelectric plant in the UK on behalf of the NDA. The PBO is Cavendish Fluor Partnership, a consortium of Cavendish Nuclear Ltd and Fluor Corporation. Cavendish Nuclear is a wholly-owned subsidiary of Babcock International Group plc, which operates the Devonport and Rosyth dockyards and will undertake the initial dismantling of the SDP submarines.

The Chapelcross site is situated close to the village of Creca approximately 2 km north of the town of Annan in Dumfries and Galloway. The location is a rural area which was originally an RAF airfield, converted for use as a Magnox nuclear power station in 1955. The site is approximately 5 km from the northern coast of the Solway Firth. The Nuclear Licensed Site covers approximately 92 hectares.

Future Site Plans

The NDA has produced a decommissioning strategy for Chapelcross. The cooling towers were demolished in 2007 and the reactors were defuelled in early 2013. Decommissioning of remaining non-reactor facilities is scheduled to start in 2023 and continue until the site enters the full Care and Maintenance phase in 2028. Final Site Clearance is scheduled to commence at the end of the Care and Maintenance phase (2089), with all remaining structures on the site cleared by 2095.





Existing Waste Stores

As part of the site's Care and Maintenance preparations, all higher activity wastes will be retrieved, processed and placed within a new store for ILW and other higher activity waste due for completion in 2015/16.

Although the RPVs would be sent to a GDF, the intent is that all non SDP higher activity waste originating on the site will thereafter be managed in accordance with the Scottish Government Policy. This states that the long term management of the wastes should be in near surface facilities located as close as possible to the site where the waste is produced.

Chapelcross Proposals

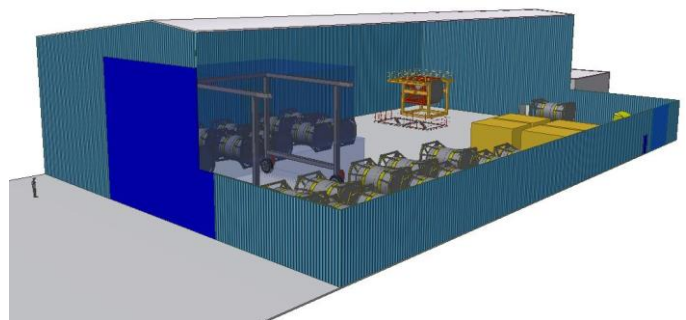
NDA has confirmed that an RPV Store at Chapelcross could be accommodated within the existing nuclear-licensed site.

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 Chapelcross 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 Chapelcross

A detailed assessment of potential impacts for an RPV store on this site is contained in the SEA Environmental Report. No significant SEA issues specific to Chapelcross have been identified.

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 though Magnox notes that there would be some local employment during construction.

Local Transport Routes

During both construction and operation, access to the site will be via a series of minor roads which connect to the A75 trunk road, which runs to the south of the site and connects to Junction 22 of the A74(M), and the B722, which connects with the A74(M) at Junction 20.

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.



Example of type of lorry suitable for RPV transport

Local Public Consultation

SDP has involved local stakeholders in the development of the Chapelcross 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 Chapelcross this includes:

- A two-day public exhibition and workshops at Victoria Halls, Annan (28, 29th November 2014).
- One day public exhibition and workshops at Victoria Halls (16th 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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