

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.

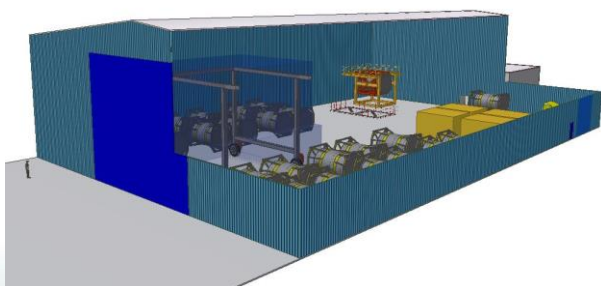
Local Factsheets provide more information on the five shortlisted RPV storage sites (Aldermaston, Burghfield, Capenhurst, Chapelcross and Sellafield) and summarise the results of the Strategic Environmental Assessment (SEA).

This factsheet gives some background on the Capenhurst 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.



One possible arrangement for an RPV store

CNS and Capenhurst Site

Capenhurst neighbours the town of Ellesmere Port in Cheshire, within the Cheshire West and Chester Council boundary. It is approximately 10 km north of the town of Chester and 4 km from the Welsh border.

The Capenhurst site was originally developed during World War II as a Royal Ordnance factory. After the war, it was chosen as the location for a uranium enrichment plant. In 1993 it was divided into two Nuclear Licensed Sites for the remaining diffusion plant and the centrifuge operations. In 2012, the Capenhurst site was re-licensed with URENCO UK Ltd as the single Site Licence Holder.

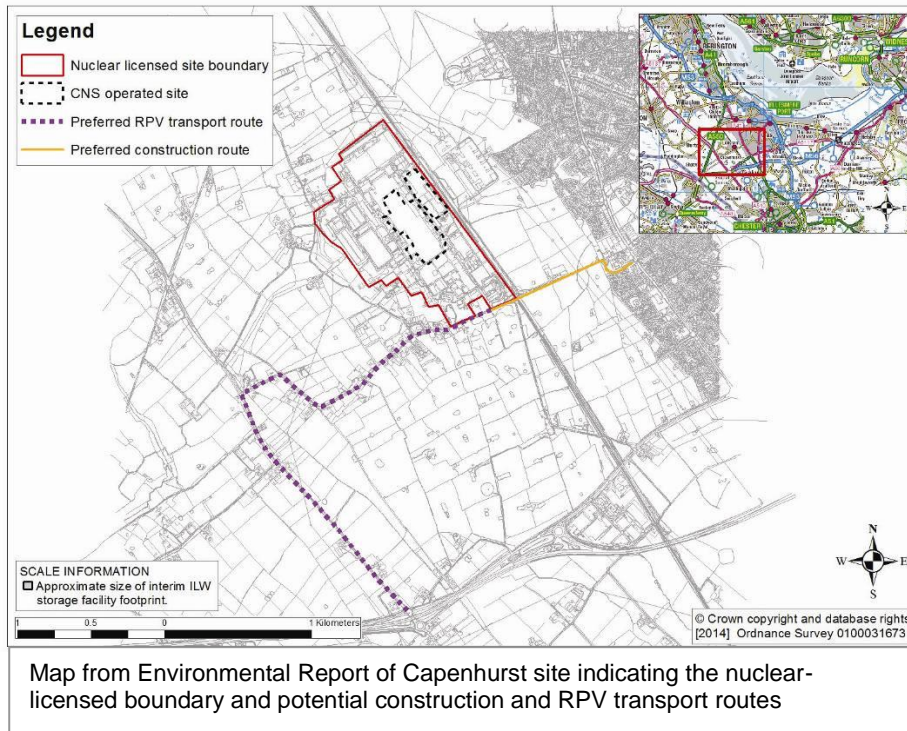
If the Capenhurst site was chosen, Capenhurst Nuclear Services (CNS) would be the RPV store operator. It operates as a tenant on part of the Licensed Site. Amongst other activities, it manages uranic materials and site decommissioning activities on behalf of the Nuclear Decommissioning Authority. CNS is a URENCO subsidiary.

Future Site Plans

There is a decommissioning strategy in place at Capenhurst that includes both near-term decommissioning activities for facilities owned by NDA and longer-term plans for those operational plants owned and operated by URENCO UK Ltd. The strategy includes the progressive refurbishment, decommissioning and demolition of a range of nuclear facilities and the appropriate treatment and disposal of wastes.

Ultimately, the strategy may lead to the eventual de-licensing of land from facilities for an appropriate after-use, such as commercial development. However, the site is expected to remain an operational site for the foreseeable future and a Nuclear Licensed Site for at least 100 years, in accordance with the end state agreement reached through the NDA stakeholder engagement process.





Existing Waste Stores

CNS has already constructed stores for radioactive material which are comparable to those that might be required to store the RPVs.

CNS takes in NDA's Magnox Depleted Uranium for storage and also stores depleted uranium hexafluoride for NDA. The Tails Management Facility currently under construction will in due course convert these "Hex Tails" to lower hazard uranium oxide for long term storage on site.



An Existing Store at Capenhurst

Capenhurst Proposals

CNS has confirmed that an RPV Store at the site 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 Capenhurst 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.

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 Capenhurst

The SEA Environmental Report notes that, despite mitigation, during construction and decommissioning, traffic vibration and dust may affect historic structures. The effect is anticipated to be minor.

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 CNS notes that there would be some local employment during construction and a small number of new posts could be created to support store operation.

Local Transport Routes

The SEA states that the route for construction traffic will be via the A41 and Capenhurst Lane avoiding Dunkirk Lane and Capenhurst Village.

CNS notes that the preferred route for the transportation of the RPV is via the A51 and through the village thereby avoiding the Capenhurst bridge.

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

The SDP has involved local stakeholders in the development of the Capenhurst Public Consultation programme and kept local authorities and other stakeholders up to date. The local liaison committee has been regularly briefed.

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

- A two-day public exhibition and workshops at the Macdonald Craxton Wood Hotel (9th and 10th December 2014).
- A one-day public exhibition at Capenhurst Village Hall (11th December 2014).
- A one-day public exhibition and workshops at the Macdonald Craxton Wood Hotel (20th 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 also 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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