

Submarine Dismantling Project (SDP)

---

# Post Consultation Report

July 2012



MINISTRY OF DEFENCE



SUBMARINES

---



## Executive Summary

In October 2011 the Ministry of Defence launched a public consultation on the strategic options for dismantling redundant nuclear submarines.

The Submarine Dismantling Consultation (SDC) ran for 16 weeks from 28 October 2011 to 17 February 2012, seeking the views of local people in the areas around candidate sites for submarine dismantling as well as the wider public and stakeholders nationally, on three key questions:

- **How** the radioactive material is removed from the submarines;
- **Where** the radioactive material is removed from the submarines;
- **Which** type of site is used to store the Intermediate Level Waste (ILW) awaiting disposal.

It also sought views on its Strategic Environmental Assessment (SEA) of the options.

Throughout the consultation period, eight local exhibitions – covering 25 days in total - and two one-day national workshops were held. Over 1,200 people visited the events of which 375 attended in-depth workshops discussing the proposals in detail.

Over 3,000 paper versions of the Consultation Documents were distributed. The document was also available to download from the internet, and the website received 3,945 unique visits. Almost 55,000 newsletters were mailed to homes and businesses in the areas local to the events and eight advertisements were placed in local newspapers. Around 60 news articles about the consultation were also carried by local media.

Over 400 written responses were received in total. They reflect a wide spectrum of views from a range of stakeholders including residents of the areas around the candidate dismantling sites, community based organisations, non-governmental organisations, local authorities, business and industry, statutory organisations, and regulatory bodies.

The SDC was the latest phase in an ongoing process of engagement with the public and stakeholders, which has included two previous rounds of public consultation. As the project progresses, the appropriate regulatory and planning approvals will be sought, which will have associated requirements for consultation, through which there will be further opportunity for local communities

to comment. Further engagement will be undertaken to consider potential sites for the interim storage of ILW.

This report documents the consultation process and provides a summary of the responses received, which the MOD will now take into account as it revisits its analysis of the options in order to take the strategic decisions on submarine dismantling. A further report explaining how the responses have been taken into account will follow once those decisions have been made, expected to be sometime in 2013.

The report is in two parts. Part A focuses on the process the consultation followed, explaining how the programme was designed and describing the consultation events, including statistics on the level of attendance. It also provides a short description of the process that has been used to collate and organise the responses to enable them to be carefully considered when the analysis of the options is revisited.

Part B summarises the responses received by subject, as listed below. A very brief overview of some of the points raised follows below, but this is not exhaustive and the respective sections of this report provide more details.

## Aims and Objectives

Most respondents supported the aim to dismantle out-of-service submarines as soon as practicable; for some this was important to avoid leaving the problem for future generations to deal with while others were more concerned with removing the submarines from the dockyards and processing the waste into a stable form. A number also suggested other objectives that the project should adopt, such as achieving public confidence. Some believed however that long term storage of the submarines should continue at the dockyards until a disposal route, the proposed Geological Disposal Facility (GDF), is available. A number argued that a wider objective should be for the government to stop building new submarines, certainly until a safe and secure method of dismantling and storing the radioactive waste is proven.

## Removing the Radioactive Materials

Safety was, for most, of primary importance in deciding between the options for how to remove the radioactive materials from the submarines, although many saw a need to take other considerations into account such as minimising the size of the package to be stored.

The proposal to remove the Reactor Pressure Vessel and store it intact was seen to be the most flexible in this regard by many respondents, being small enough to be moved by a number of methods of transport while also taking advantage of radioactive decay during storage. Arguments for the option of separating the Reactor Compartment chiefly focused on the minimisation of safety risk, specifically the risk of releasing radiation and the risk to security. Some also raised concerns about the effects of low level radiation. Using methods of handling radioactive materials that are well-established in the UK nuclear industry was put forward in favour of the option of size-reducing and packaging the waste.

## Dismantling Location

Dismantling on both sites was seen by some as a pragmatic solution to the question of where to carry out dismantling activities as it removes the need to transport entire submarines. Others also saw it as a compromise between the communities that currently store the submarines. For some any option would have to be accompanied by significant benefits for the community in return for hosting any work in order to be acceptable. There was significant concern among some residents of the candidate sites about carrying out dismantling in a city location or any populated area. As well as concerns about health effects, socio-economic impacts were an important factor; these are also explored in the section 'Impacts on Communities'.

## Intermediate Level Waste (ILW) Storage

The question of where the ILW is to be stored was the most significant for many respondents. The case for MOD continuing discussions with the Nuclear Decommissioning Authority was supported on the basis that building new stores should be avoided if possible. Others saw a stronger case for using an MOD site as it should take responsibility for its own waste and continue to be accountable for it until disposal. There was little support for using a site owned by a commercial company; reasons given for this included a lack of trust in any organisation motivated by profit. There were similar concerns about storing at the dismantling site(s) as for conducting dismantling work there. Additionally there were worries that, because the site selection process for storage sites had been deferred, the dismantling sites would end up storing waste by default. There was widespread agreement that further stakeholder engagement would be required on this issue and, for some, the fact that specific sites had not been identified at this stage undermined their ability to come to a view on the other questions.



## Impacts on Communities

Safety, public confidence and socio-economic issues were high among the concerns about the location of dismantling and storage of waste. The need for the chosen solution to inspire public confidence was emphasised and most pointed to the importance of further stakeholder engagement in achieving this. This was felt to be particularly important for the future selection of a storage site. The socio-economic issues highlighted included effects on the perception of the area, influence on investment in other sectors and effects on tourism, as well as direct effects such as employment. Some respondents argued for packages of benefits to offset any negative impacts.

## Environmental Issues

The process the Strategic Environmental Assessment had adopted to assess the potentially significant effects of SDP was largely accepted and many welcomed the clarity of the Non-Technical Summary. The most common concern was that there was a lack of sufficient data on the likely radioactive discharges and any associated effects on local populations and that the conclusions had therefore underestimated the potentially significant environmental effects. Recognising that finer levels of detail could not be known until later stages of design and planning, the MOD was strongly urged to share further information with the public when it is available. The proposed monitoring arrangements were of great importance for many and some felt that more proactive measures should be taken to monitor any effects. Additional information that the SEA might consider was suggested, by the statutory bodies in particular, as well as other points of detail.

## Approach to Analysis

The way in which the MOD conducted its analysis was generally thought to be thorough but there were a range of comments about details or ways in which it could be improved. A key suggestion was that further analysis of the options should directly involve wider stakeholders, as well as experts. Sensitivity testing of the analysis, to test whether different perspectives considerably alter the results, was recommended to ensure the robustness of the approach. Several detailed comments were also made on the weightings given to certain factors. A view was put forward that the approach to assessing the ILW storage options was flawed and that, instead of discounting certain sites by first selecting a type of site, the MOD should compare and assess all potential sites on an equal footing.

## Conduct of the Consultation

Many felt that the consultation had given adequate and genuine opportunity to be involved in the decision-making process and were satisfied with the information they received. There was also some scepticism though, of the ability of consultees to truly influence the chosen options, and suspicion that the decisions had already been made. The most frequent criticism was of the publicity of the consultation and a concern that a number of residents were not aware of it. A widespread view was that the MOD must maintain a transparent approach and continue to engage the public and stakeholders as the project progresses. A number of suggestions were made about ways in which to do so.

## Out Of Scope Issues

There were a number of comments received that, while they were strictly outside the scope of SDP, raised issues that respondents felt strongly must be considered; some saw these issues as more important than SDP. Among these were concerns about the refuelling and defuelling of submarines at Devonport, which for some was inextricably linked to dismantling and should therefore have been considered alongside the SDP. Wider positions expressed included those who questioned the need for a submarine fleet at all, and they argued that the SDP only serves to demonstrate the very problems of nuclear power. Others voiced strong opposition to the nuclear deterrent carried by some of the submarines, and pressed for a consultation on the renewal of Trident.

# Table of Contents

## PART A

1. BACKGROUND	6
2. DESIGNING THE CONSULTATION	7
3. CONSULTATION PERIOD	10
4. WORKSHOPS	15
5. NEXT STEPS	17

## PART B

6. COLLATING THE RESPONSES	19
7. COMMENTS ON AIMS AND OBJECTIVES	21
8. COMMENTS ON REMOVING THE RADIOACTIVE WASTE	23
9. COMMENTS ON DISMANTLING LOCATION	28
10. COMMENTS ON ILW STORAGE	31
11. COMMENTS ON COMMUNITY IMPACTS	35
12. COMMENTS ON OTHER CONTRIBUTORY FACTORS	38
13. COMMENTS ON ENVIRONMENTAL ISSUES (SEA)	40
14. COMMENTS ON THE APPROACH TO ANALYSIS	43
15. COMMENTS ON THE NEXT STEPS	45
16. COMMENTS ON THE CONDUCT OF THE CONSULTATION	47
17. COMMENTS ON OUT OF SCOPE ISSUES	48
18. SUBMISSIONS FROM ORGANISATIONS	50
19. ABBREVIATIONS	52
20. SUPPORTING DOCUMENTS	52







# PART A



   
**Submarine Dismantling Consultation**

**Welcome**

gives you the chance to find out more about the  
dismantling Project (SDP) and ask us your views.

Helpful information about:

- our progress for dismantling  
and our service objectives
- the consultation process and  
next steps

If the project team are here  
our proposals and answers  
as you may have.



# 1. Background

- 1.1.1. The aim of the Submarine Dismantling Project (SDP) is to deliver a safe, secure, environmentally responsible and cost-effective solution for dismantling 27 of the UK's defuelled nuclear powered submarines after they have left service with the Royal Navy.
- 1.1.2. The MOD recognises that there is keen interest in the project from the public and local communities and that the public should have confidence in the solution chosen. For this reason it held a public consultation to hear the public's views on the key decisions that need to be taken.
- 1.1.3. The Submarine Dismantling Consultation (SDC) which addressed these questions ran from 28 October 2011 to 17 February 2012. A number of events were held where the public could learn more about the project and discuss their views. There were also a variety of ways in which people could submit responses to the MOD.
- 1.1.4. This report provides an account of the consultation period - including details of events, how the consultation was publicised and statistics about the consultation - and documents the responses that were received. It identifies the key issues highlighted by the consultation which the MOD will need to take into account when it revisits its analysis of the options.
- 1.1.5. The report is in two parts: Part A focuses on the process the consultation followed and Part B summarises the responses received by subject. The Annexes referred to in this report are available in a separate document due to their size; this and all other supporting documents are referenced throughout this report and are available on the SDP website [www.mod.uk/submarinedismantling](http://www.mod.uk/submarinedismantling). Paper copies are available on request from the project team (contact details are on the back page of this report).
- 1.1.6. The MOD is now carefully considering all the responses received, and no decisions on the solutions will be taken until that process is complete. This report does not, therefore, respond to the issues raised or make conclusions about the solutions to be chosen - a further report, explaining how the feedback has been taken into account, will be published once those decisions have been made.
- 1.1.7. The SDC was the latest phase in an ongoing engagement process, which has included two previous rounds of public consultation (a summary of which is available in the factsheet 'History of the Project'<sup>1</sup>) and will include further opportunities for public and stakeholder input. The 'Next Steps' section of this report identifies some of these activities and the MOD will publish an updated version of the document Our Approach to Stakeholder Engagement, to explain these in more detail.

<sup>1</sup> SDP Factsheet 1 - History of the Project, October 2011: [www.mod.uk/NR/rdonlyres/315E541B-C69C-4439-B0A7-29E4C5BC0BEE/0/SDP\\_FS1\\_HistoryofProjectWEB.pdf](http://www.mod.uk/NR/rdonlyres/315E541B-C69C-4439-B0A7-29E4C5BC0BEE/0/SDP_FS1_HistoryofProjectWEB.pdf)





## 2. Designing the Consultation

### 2.1. Overview

2.1.1. This section sets out the scope of the consultation and the objectives that guided its development, the design of the consultation programme and how other stakeholders were involved in its planning.

### 2.2. Scope of the Consultation

2.2.1. The consultation sought views on the MOD's proposals for the three key decisions that need to be made about submarine dismantling:

- **How** the radioactive material is removed from the submarines;
- **Where** the removal of the radioactive material from the submarines is carried out; and
- **Which** type of site is used to store the radioactive waste that is awaiting disposal.

2.2.2. These questions focused on the new activities to be undertaken as part of submarine dismantling. The Consultation Document<sup>3</sup> made clear which aspects of the SDP were not subject to consultation, such as activities that are already carried out routinely during submarine maintenance and ship recycling, which can be conducted for submarines in a similar way to recycling for conventional surface ships once the radioactive material is removed.

2.2.3. The consultation also sought views on the Strategic Environmental Assessment, which examined the potential environmental effects of the options for submarine dismantling and of the process overall.

2.2.4. Most responses concentrated on the consultation questions but some also addressed themes which are not within the scope of the project's influence. In particular a number of comments were made about the process of defuelling submarines which is not part of the SDP as this process takes place before the submarines are dismantled, has been undertaken in the past, and because replacement defuelling facilities are

already in the process of being constructed. For completeness and transparency these comments are included in this report's analysis in Section 17, 'Out of Scope Comments' and have, where appropriate, been passed on to the relevant areas of the MOD for consideration.

### 2.3. Consultation Objectives

2.3.1. The Submarine Dismantling Consultation is part of the wider SDP public and stakeholder engagement process. This programme, and the principles which underpin it, is described in more detail in the document *Our Approach to Public and Stakeholder Engagement*<sup>4</sup>.

2.3.2. Through this public and stakeholder engagement process, the project seeks to inform local communities and other stakeholders about submarine dismantling so that they might understand the differences between the options, the respective impacts they may have and the logic behind the MOD's analysis and proposals. It also aims to ensure that both local and national stakeholders have the opportunity to engage with the project, which will in turn help to inform MOD's decision making process.

2.3.3. The consultation process was also designed in line with the Government's Code of Practice on Public Consultation<sup>5</sup> and aimed to meet the seven consultation criteria identified therein. The criteria were reproduced in the Consultation Document and the consultation questions invited feedback on the extent to which the consultation met these criteria.

### 2.4. SDP Governance

2.4.1. Since 2007, the independent SDP Advisory Group (comprising a cross Section of individuals from industry, professional bodies, specialist professions, academic institutions, local government organisations, Non-Government Organisations and Community Based Organisations) has provided constructive challenge and advice to the project team on the consultation and decision making process. Its advice was taken into account in the design of the consultation and the group reviewed and provided feedback on the plans. The Advisory Group has also reviewed this report.

<sup>3</sup> SDP Consultation Document; October 2011: [www.mod.uk/NR/rdonlyres/3EC5C8B3-4CA7-4983-ACC9-441E70B3E93A/0/sdp\\_consultation.pdf](http://www.mod.uk/NR/rdonlyres/3EC5C8B3-4CA7-4983-ACC9-441E70B3E93A/0/sdp_consultation.pdf)

<sup>4</sup> *Our Approach to Public and Stakeholder Engagement*; November 2011: [www.MOD.uk/NR/rdonlyres/F9C874A5-C690-4300-B936-F327676E30E2/0/20110930SDP\\_Our\\_Approach\\_to\\_PSE\\_v3\\_2U.pdf](http://www.MOD.uk/NR/rdonlyres/F9C874A5-C690-4300-B936-F327676E30E2/0/20110930SDP_Our_Approach_to_PSE_v3_2U.pdf)

<sup>5</sup> HM Government Code of Practice on Consultation, July 2008: <http://www.bis.gov.uk/files/file47158.pdf>



2.4.2. Two sub-groups of Advisory Group members were formed to monitor the development of the Submarine Dismantling Consultation and the parallel Strategic Environmental Assessment. Meeting more frequently than the full Advisory Group, this enabled a smaller number of specialist Advisory Group members to have more detailed and frequent engagement with the project team. They operated under a non-disclosure agreement to enable them to review draft consultation documents. Their role is described further below.

2.4.3. The Advisory Group also sent observers to the workshops MOD conducted as part of the initial options analysis process and to local and national consultation events. The observers have produced reports back to the full group on their observations on the process (see section 3.12.1).

2.4.4. The project routinely liaises with relevant Statutory Bodies, including regulators such as the Office for Nuclear Regulation, the Environment Agency and the Scottish Environment Protection Agency; other government departments such as the Department for Energy and Climate Change; the Nuclear Decommissioning Authority and the Scottish Government. These stakeholders were also consulted on the development of the programme and reviewed materials relating to their areas of expertise.

## 2.5. Designing the Consultation

2.5.1. The programme for the Submarine Dismantling Consultation was designed in discussion with relevant Local Authorities and other key stakeholders to draw on experience of how best to engage local communities, the wider public and other stakeholders. Local Authority Statements of Community Involvement were also consulted for initial guidance.

2.5.2. The MOD wrote to relevant local elected representatives to offer briefings on the project, at which input and advice on the plans were also sought. Local community representatives were updated on the plans for consultation via Local Liaison Committee meetings in Devonport and Rosyth (see section 3.8 for details).



2.5.3. The Consultation Sub-Group to the Advisory Group was closely involved in both the design of the consultation events and the development of the consultation materials, and regularly reported back to the main Advisory Group on its work.

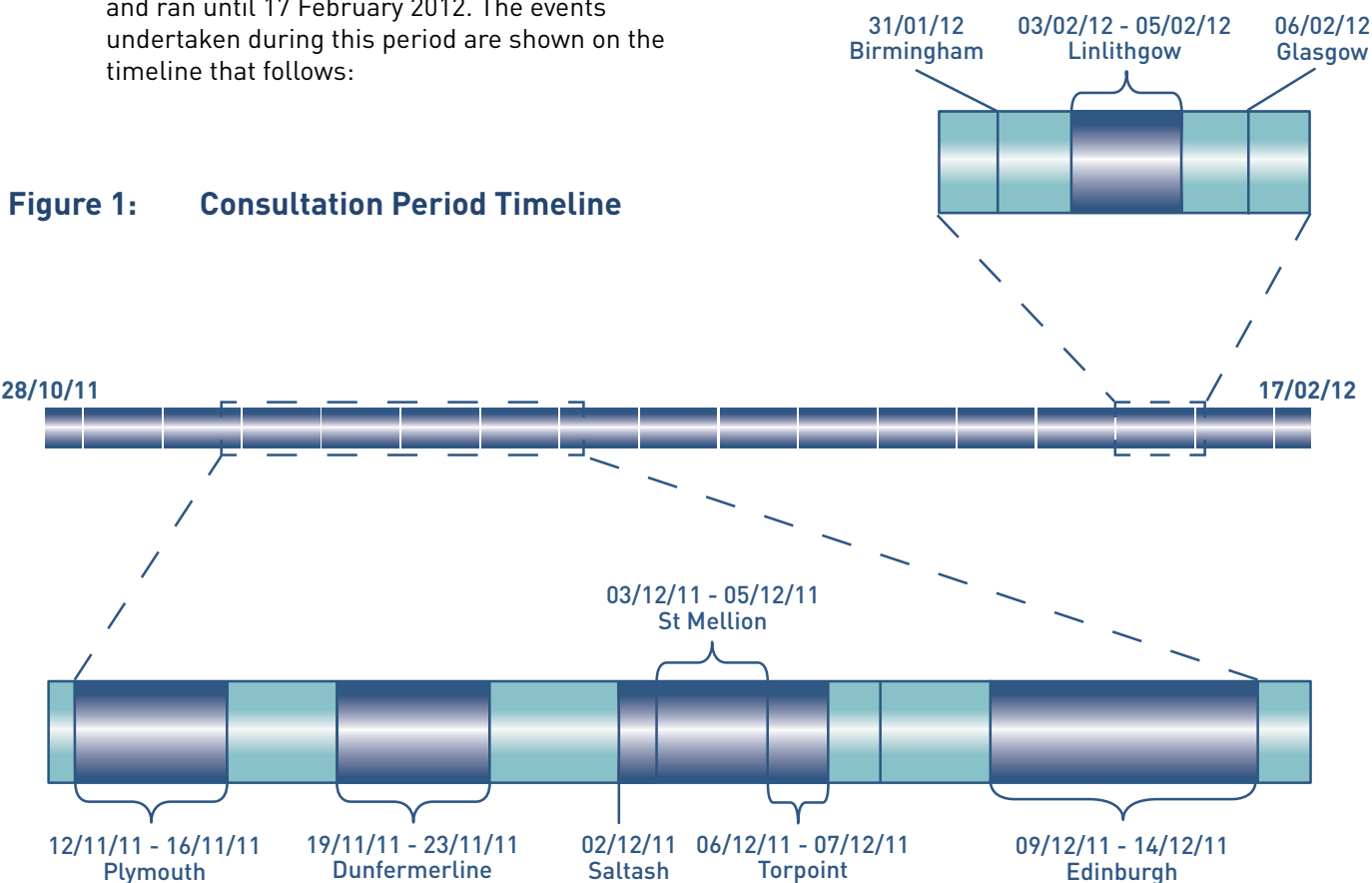
2.5.4. As well as seeking to adhere to the principles of the Government Code of Practice on Consultation, other comparable consultations were reviewed for good practice, including those undertaken elsewhere in Government and in the civil nuclear domain.



## 2.6. Consultation Period

2.6.1. Given that the consultation ran over the Christmas and New Year holiday period, and in view of the volume of material and the complexity of the subject, the consultation period was extended beyond the usual 12 week period (recommended by the Government Code of Practice) to 16 weeks. This extension allowed a comprehensive consultation and a full programme of events to be held.

2.6.2. The consultation opened on 28 October 2011 and ran until 17 February 2012. The events undertaken during this period are shown on the timeline that follows:



2.6.3. The majority of the local events were held in the first half of the programme (between October and December 2011) in order to offer residents and community representatives the opportunity to learn about the project before taking time to examine the consultation materials and ask any further questions if needed. Two rounds of local events were held in each area in an effort to reach as many residents as possible. A number of individuals who came to earlier events returned to later events to talk to the team about questions they had.

2.6.4. Assuming that stakeholders with a professional or wider, national interest, would prefer to read the consultation materials and then use events to test their understanding and to challenge the team on points of detail, the national workshops were held during the second half of the programme (in January and February 2012).

## 3. Consultation period

### 3.1. Overview

3.1.1. This section describes the main activities involved in the SDC, including:

- Notification and publicity
- Newsletter distribution
- Publication of documentation
- Updates to the project website
- Local exhibitions
- National workshops
- Other stakeholder events
- Employee communications
- Strategic Environmental Assessment
- Handling written responses

3.1.2. The section concludes with some of the lessons identified during the consultation which can be applied to the design of future public and stakeholder engagement processes in MOD and shared more widely with other government departments.

### 3.2. Notification and Publicity

3.2.1. The start date for the consultation was officially announced one month in advance. Details were posted on the project's website, letters sent to stakeholders and information issued to local media.

3.2.2. The MOD wrote to known stakeholders – including Local Authorities, elected representatives, other government departments, members of the Rosyth and Devonport Local Liaison Committees and the SDP Advisory Group – with details of the arrangements (enclosing copies of the key documentation) and encouraging them to participate.

3.2.3. A Written Ministerial Statement was made in Parliament, and letters were sent to interested Members of Parliament (MPs) and Members of the Scottish Parliament (MSPs). Local Authorities and elected representatives for the areas potentially affected were offered the opportunity

for a briefing from the SDP team. Around a dozen briefings were held leading up to and during the consultation period.

3.2.4. Information about the consultation plans, including details of local events, were issued to local newspaper and broadcast media organisations. In the period leading up to and during the consultation, the SDP team is aware of around 60 news items in local newspapers, on radio or on television and some online news sites. (Letters published in newspapers' letters pages are not included in these figures.)

3.2.5. The arrangements for specific events were also advertised separately via paid-for adverts in local newspapers a fortnight in advance of each event (a schedule of publicity is included in Annex A), and just under 55,000 newsletters were delivered to local residents (see Section 3.3)

3.2.6. The SDP website was updated in the run up to and throughout the consultation period. A series of email alerts was sent to those who had registered via the website to receive updates, notifying them about the consultation.

3.2.7. As well as these direct communications, the project team is aware that information about the start of the consultation was disseminated by interested parties through email news distribution lists, employee and public newsletters, blogs and social media. The NDA included articles about the consultation in its site stakeholder newsletters 'Insight' and the NDA Monthly Update. A number of local Community Based Organisations and Non Governmental Organisations also publicised the events through their stakeholder lists, leaflets and websites, including Campaign Against Nuclear Storage and Radiation (CANSAR), Nuclear Submarine Forum, Tavistock Peace Action Group and the Nuclear Institute among others.

### 3.3. Newsletters

3.3.1. Newsletters providing a short summary of the MOD's proposals and details of local events were mailed to 54,595 homes and commercial premises in the areas where local events were held. These direct mailings, which were conducted a fortnight ahead of the events, were designed to raise awareness of and encourage attendance at the exhibitions and workshops.



They also provided information on alternative ways of getting further information for those who were not able or did not wish to attend. An example of a newsletter and a breakdown of the distribution figures are included in Annex A.

- 3.3.2. Leaflets providing details of events were also distributed during the local exhibitions in public areas near to the venues such as shopping centres. A number of shops (see the table at Annex A) kindly agreed to take supplies of leaflets for their customers to take away.

### 3.4. Documentation

- 3.4.1. There were a number of ways to respond but the Consultation Document and its key questions were the focus of the consultation. In all, more than 3,000 copies were distributed through the local and national events, local libraries and council offices, and by post to organisations and individuals on request. For those with internet access, it was also available to download; the page on which it was hosted received around 2,000 visits during the consultation period.
- 3.4.2. The Consultation Document aimed to provide the information stakeholders needed to be able to respond to the consultation and was designed to be as accessible as possible to the general public. A range of factsheets provided further information on some of the key subjects but in a simple, accessible style.
- 3.4.3. Supplementary detailed information for stakeholders with more in-depth interests was also available on the project website and at the local and national events for those who wished to scrutinise the detail of the assessments that underpinned the MOD's proposals. A hierarchy of documentation<sup>7</sup> was provided to help stakeholders identify and navigate the documentation available and a document guide was also published on the website.
- 3.4.4. A number of documents providing background information to the project were published on the website in the month leading up to the consultation for those wishing to study the technical aspects in detail in preparation for the consultation itself. Only documents which did not contain any information relating to the results of the MOD's analysis or proposals were released prior to the consultation period however.

### 3.5. Project Website

- 3.5.1. The SDP website, [www.mod.uk/submarinedismantling](http://www.mod.uk/submarinedismantling), carried details of consultation events, all of the documents supporting the consultation and the project team's contact details. It also provided access to the main Consultation Document and the associated feedback form, which was able to be submitted by email.
- 3.5.2. Interim feedback reports were published on the website at intervals throughout the consultation, listing all the responses made using feedback forms (where permission had been given for the response to be made public) and giving up-to-date statistics on levels of participation.
- 3.5.3. The SDP website received a total of 3,945 unique visits during the consultation. It also offered the opportunity to register for news alerts by email and a total of 127 people subscribed (including those who subscribed before the start of consultation). Subscribers will continue to receive alerts to new developments beyond the consultation period as the project progresses.

### 3.6. Local Exhibitions

- 3.6.1. A public exhibition was held in each of the locations listed in the table below (figure 2), which also gives attendance figures for each event. Venues were selected to be accessible via public transport links.
- 3.6.2. The events were designed for, and open to, all members of the public, and invitations were sent to local stakeholders and potentially interested parties known to the project team (for example elected representatives, strategic partnership/initiative member organisations, trade unions, local special interest groups and community networks).
- 3.6.3. MOD staff, including both Service and civilian members of the project team, staffed the exhibitions to listen to feedback, answer questions and discuss any concerns. Representatives from the Environment Agency and the Scottish Environment Protection Agency were available, at the events in England and Scotland respectively, to answer questions about environmental matters and their roles as regulators.

<sup>7</sup> Public Consultation Documentation Hierarchy, Consultation Document, p7 and at: [www.mod.uk/DefenceInternet/Templates/LargeImageTemplate.aspx?img=/NR/rdonlyres/56092B1D-F61A-4AD2-B751-C51305B8D580/0/20111024\\_SDP\\_Doc\\_Hierarchy.jpg&alt=SDP%20Doc%20Guide](http://www.mod.uk/DefenceInternet/Templates/LargeImageTemplate.aspx?img=/NR/rdonlyres/56092B1D-F61A-4AD2-B751-C51305B8D580/0/20111024_SDP_Doc_Hierarchy.jpg&alt=SDP%20Doc%20Guide)



3.6.4. Display boards summarised the background to the project and the MOD's proposals, and a short video providing an introduction to nuclear submarines and the project was played. Each visitor was given a copy of the Consultation Document and SEA Non-Technical Summary on arrival, and feedback forms were provided for visitors to either complete there and then or to take away and return by freepost. A range of supplementary material with further information, including factsheets and copies of the MOD's technical reports was also available. Materials from other relevant organisations, including information from the Nuclear Decommissioning Authority about geological disposal and information from the Environment Agency and the Scottish Environment Protection Agency, was also available.

**Figure 2: Local Public Exhibitions**

Venue	Duration (days)	Visitors
Plymouth Guildhall	5	406
Saltash Guildhall	1	119
St Mellion Hotel	3	110
Torpoint Town Hall	2	130
Carnegie Conference Centre, Dunfermline	5	139
Rosyth Civil Service Club	1	95
Surgeons' Hall, Edinburgh	5	62
Linlithgow Burgh Halls	3	124
<b>TOTALS</b>	<b>25</b>	<b>1185</b>

3.6.5. The exhibitions were supplemented in each location by a number of facilitated workshops to allow members of the public to explore any areas of interest or concern in more depth. Further details about the workshops, including numbers of participants, are given in Section 4.

### 3.7. National Workshops

- 3.7.1. Two national workshops were held where key issues could be discussed in detail and considered from a national perspective. Like the local workshops, the national workshops were intended both to inform and to gain an insight into views of various stakeholders.
- 3.7.2. These workshops were open to any member of the public but were designed in particular for stakeholders with a strategic or specialist interest in the project, for example representatives of special interest groups, Local Authorities, industry, statutory bodies and government. In addition to publicising the workshops, the project team sent invitations to individuals and groups known to have an interest in the subject matter.
- 3.7.3. Details, including numbers of participants and the format of the workshops, are included in Section 4.

### 3.8. Other Stakeholder Events

- 3.8.1. Devonport and Rosyth dockyards have established site stakeholder groups which meet in public called Local Liaison Committees comprising representatives of health organisations, emergency services, industry and local authorities. Both the Devonport and Rosyth Local Liaison Committees were briefed by SDP staff on the consultation, consulted on local arrangements and updated on progress as appropriate.
- 3.8.2. The project team was invited to support some relevant events being held by other organisations during the consultation period to raise awareness of the consultation, listed below. Project team members supported these events to answer questions and the same exhibition materials were used and documentation made available.
- Nuclear Institute, Bristol (SDP lecture and stand); 16 November 2011; approximately 60 attendees
  - NDA National Stakeholder Event, Manchester (SDP stand); 23- 24 November 2011; approximately 80 attendees
  - Nuclear Institute, Warrington (SDP lecture and stand); 6 December 2011; approximately 80 attendees



3.8.3. The Chair of the Devon, Cornwall and Isles of Scilly Local Resilience Forum (LRF) convened a Scientific and Technical Advice Cell (STAC) comprising a range of experts to consider the effects of the SDP proposals from a health, safety and environmental perspective. The SDP team responded to requests for information and gave a presentation to the STAC. The STAC submitted a report detailing its conclusions to the LRF to assist its members in forming their response to the consultation. Fife Council meanwhile conducted its own survey of just over 7,000 local residents in addition to the MOD consultation. It received 985 responses which were, in turn, factored into the Local Authority's formal response.

### 3.9. Employee Communications

3.9.1. Established internal communications arrangements were used to inform staff (including MOD, industry and Service personnel) at the dockyards, Naval Bases and other MOD sites, making them aware of the consultation and the events. These included staff newsletters, intranet announcements and management. The same exhibition materials as used at the public exhibitions were also displayed at these sites during the consultation period.

### 3.10. Strategic Environmental Assessment (SEA)

3.10.1. In parallel with its options analysis, the MOD undertook a Strategic Environmental Assessment, a formal and legally defined process which ensures that any potentially significant effects of a plan or programme on the environment, health and population - including socio-economic issues - are identified and assessed. Its findings are being taken into account in the assessment of the SDP's options.

3.10.2. The SDP's SEA followed the stakeholder engagement procedures, defined in the SEA Regulations<sup>8</sup>. In the first scoping stage of the SEA, the UK's Statutory Bodies and relevant government departments and agencies were consulted on the scope of the environmental assessment. Due to the complexity of the project, the MOD undertook this scoping in two stages. First, the Statutory Bodies were consulted on the environmental criteria, but not the potential candidate sites for the initial dismantling of submarines. The potential candidate sites (identified through a site screening study described in the SDP Site Criteria & Screening Paper) were then added and a second round of

consultation was undertaken. This two-stage process enabled the site screening study itself to take into account comments received from Statutory Bodies.

3.10.3. Following the second Statutory Consultation, the scope of the SEA was finalised and the assessment completed. The findings were presented in the SEA Environmental Report and accompanying Non-Technical Summary, which formed a part of the wider Submarine Dismantling Consultation.

3.10.4. Feedback on the SEA received during consultation is documented in Section 13 of this report.

### 3.11. Written Responses

3.11.1. All written responses have been recorded and collated (see Section 6). Most of the written responses answered the consultation questions directly either using the feedback form (in the Consultation Document, distributed at events and available online) or in letters or emails. One petition, 'Plymouth Says No', was received comprising 157 postcards completed by individuals with their name and contact details. The SDP team also met with the organisers of the petition to discuss and understand their underlying concerns, to ensure they had been captured in the feedback. A breakdown of the written responses received is given in the table below.

**Figure 3: Responses Received**

Response Type	Number
Feedback forms	147
Letters / Emails	102
'Plymouth Says No' postcards	157
<b>TOTALS</b>	<b>406</b>

<sup>8</sup> The Environmental Assessment of Plans and Programmes Regulations 2004 (SI No. 1633).

3.11.2. The vast majority of responses were received within the consultation period but a small number were received a few days late. Although they were late, they have all been included in the formal responses.

3.11.3. As well as the formal written responses, all feedback that the team received during the consultation, including records of the discussions held in workshops and notes written on the sticky notes provided in these workshops will be taken into account in the MOD's assessments (see annexes E - N). This is particularly important to note in view of the fact that, while over 1,200 people visited the events, a much smaller number of formal written responses were received.

### 3.12. Evaluation of Consultation Events

3.12.1. The MOD will conduct a full evaluation of the consultation process in due course as part of a wider review of the project to date. The SDP Advisory Group's input will be sought and the project is able to draw on a number of helpful suggestions made by people at the events and in the formal responses. Observers from the SDP Advisory Group attended both national and local events to monitor the conduct of the consultation and the report of their observations is available on the website<sup>9</sup>.

3.12.2. Throughout the consultation process, however, the team kept notes of things that could have been done better or more efficiently. Some examples are given below.

3.12.3. Engagement with some local representatives was not arranged until late in the planning process and the need for an event in Linlithgow was not identified initially. Fortunately the timetable and availability of a suitable venue allowed for this to be incorporated into the main programme.

3.12.4. Many venues were not available in December for the length of time required for the consultation events due to long-standing bookings for Christmas activities. As a result, one venue, the St Mellion Hotel, had to be used which was further out of town than the team would have liked. To ensure that a local event was available, the Saltash Town Hall was secured with the kind assistance of a local councillor, for an additional one day event.

3.12.5. The newsletter mailing to advertise the Dunfermline events missed the residents of Charlestown and Limekilns due to a miscommunication with the mailing company. This was brought to the team's attention during the event. An additional workshop was therefore arranged in the area but due to the short notice of this arrangement, combined with postal delays caused by poor weather, most residents did not receive the leaflets alerting them to the workshop in time. A number of individuals who had been in touch with the team were contacted and offered transport to the subsequent event in Linlithgow and a mailing was conducted to make the same offer to the rest of the residents. Some people took up the offer of transport and several more made their own arrangements to attend.

3.12.6. One member of the public suggested that a web form for responses would have been more convenient than the document provided on the website, for those without access to Microsoft Word. Recognising, however, that professional organisations in particular tend to prefer to use a separate document that can be shared among colleagues, the project team view is that both formats should be available.

<sup>9</sup> SDP Advisory Group Observer Report; Oct 2011, Nov 2011 and Jan 2012: <http://www.mod.uk/DefenceInternet/MicroSite/DES/OurPublications/SDP/PubConsultDocs/05Level5SupportingDocuments.htm>



## 4. Workshops

### 4.1. Local Workshops

- 4.1.1. The workshops were an opportunity for members of the public to engage in more in- depth discussion with the project team and with other members of the public in their community. They were deliberative events, aimed to help inform and encourage participants' formal responses, not to achieve any consensus of views.
- 4.1.2. The workshops provided an extremely valuable opportunity for the team to thoroughly discuss and understand people's questions, concerns and suggestions, and as such these workshops are important sources of feedback for the project, along with the written responses received.
- 4.1.3. Over 300 people participated in the local workshops; numbers for each location are given in the table below (figure 4). Up to five local workshops were held per day, over 14 days in total. They were held at intervals throughout the day and prior registration was encouraged to help manage numbers of participants but was also accommodated on the day. Numbers were limited to a maximum of 25 where possible to ensure as many people as possible got a chance to speak. On a few occasions two workshops were held simultaneously to accommodate demand.
- 4.1.4. Each workshop began with an introductory presentation from a member of the MOD team and was followed by a facilitated discussion. Project team members covering a range of expertise were present to answer questions. Discussions were wide ranging and were guided by the issues participants were most keen to explore.
- 4.1.5. Workshops were scheduled to last around 1.5 hours but the format was varied to suit the number of participants. Several workshops that had a high number of participants, and those where participants were keen to discuss issues in more depth, ran for longer whereas fewer participants allowed for more informal discussions.

- 4.1.6. They were led by facilitators to help encourage discussion who also took notes of all discussions to be fed in to the analysis of feedback received. These notes are available in Annexes E-K.
- 4.1.7. Participants were also encouraged to note their own comments or questions on A5 sticky notes which were stuck on the walls of the workshop rooms for the SDP team and other participants to read. Facilitators also assisted by transcribing some of the key points made by participants onto sticky notes. These notes were left on the walls for participants in later workshops to read, to help stimulate debate and to give participants a feel for the general range of views expressed. The notes also ensure a verbatim record of comments that can be taken into account in the analysis. Transcripts of the notes are included in Annex N and scanned originals are also available on the project website.

**Figure 4: Table showing the total number of workshop participants at each venue**

Venue	Workshop Participants
Plymouth Guildhall	87
St Mellion Hotel	25
Torpoint Town Hall	44
Carnegie Conference Centre, Dunfermline	36
Rosyth Civil Service Club	54
Surgeons' Hall, Edinburgh	12
Linlithgow Burgh Halls	46
<b>TOTALS</b>	<b>304</b>





## 4.2. National Workshops

- 4.2.1. Over 70 people, most representing an organisation or group, attended the two national workshops and the table below gives attendance figures broken down by sector.
- 4.2.2. One workshop was held at the International Conference Centre in Birmingham on 31 January 2012 and the other at the Scottish Exhibition & Conference Centre in Glasgow on 6 February 2012. The same exhibition materials and documentation were on display as at local events. Each workshop ran from 11am to 4pm to allow for return travel on the same day.
- 4.2.3. Each day opened with an overview of the project and consultation process before participants divided into smaller groups to join a workshop addressing each of three key topics in rotation: 'initial dismantling'; 'ILW storage'; and 'environmental issues'.
- 4.2.4. Like the local workshops, facilitators led these workshops and took notes of all discussions to be fed in to the feedback analysis. Participants were again encouraged to note their own comments or questions on A5 sticky notes. The notes and transcribed sticky notes are included in Annexes L-N of this report.

**Figure 5: National Workshop Attendance**

Sector	Birmingham	Glasgow
Academic Institution	2	0
Government / Public Body <sup>12</sup>	5	6
Individual	2	1
Industry	14	10
Local Government <sup>13</sup>	2	11
Non Governmental Organisation	6	1
Professional Association	1	1
Statutory Body	5	4
<b>Totals</b>	<b>37</b>	<b>34</b>

- 4.2.5. Evaluation sheets were given to delegates in their information packs and also emailed after the events, to contribute to the project's evaluation and identify any learning points.

<sup>12</sup> Includes: Other Government Departments, Non-Departmental Public Bodies, Devolved Administrations and organisations with an advisory role to Government such as CoRWM and Defence Nuclear Safety Committee.

<sup>13</sup> Includes: Local authorities, Community Councils and groups or organisations representing Local Government.



## 5. Next Steps

### 5.1. The Decision Making Process

- 5.1.1. The MOD is committed to taking all the views received during this public consultation into account as it makes its decisions on submarine dismantling.
- 5.1.2. This report summarises the responses received which are being fed into a further period of analysis before the MOD forms its recommendations about the way forward. These recommendations must be put forward in a business case for approval by the relevant authorities in the MOD. Further approval for specific activities will be required from the independent regulators before preparations for dismantling can start. We are not able to confirm detailed schedules and timescales until approval has been sought but we anticipate decisions will be announced sometime in 2013; information will be published on the project website as soon as it is available and stakeholders will be kept informed.
- 5.1.3. Once these decisions have been made, the MOD will publish a report demonstrating how the consultation responses have been taken into account and explaining the way ahead for the project. A Post Adoption Statement will also be published, describing how environmental considerations and responses to the SEA specifically have been integrated into the final SDP decisions.

### 5.2. The solution for storage of ILW

- 5.2.1. The MOD is working with the NDA to determine whether using NDA's storage facilities for the interim storage of ILW would provide the best value for taxpayers' money or whether building a new facility for the MOD would be a better option. No dismantling of submarines will take place until a storage solution has been agreed. This is also a regulatory requirement.
- 5.2.2. The option of sharing NDA's facilities will not be considered further if their facilities are not available at the right time or if a MOD-only storage solution is shown to be the better option. Should this be the case, the MOD will carry out a selection process from suitable nuclear sites that either it owns or that are owned by the nuclear industry.

- 5.2.3. If, following this consultation, MOD proposes to develop a new build storage facility for ILW from submarines (on sites owned by MOD or industry), a further public consultation will follow to support the selection of a site. Alternatively, if it is proposed that the storage solution will be provided by NDA then they will engage the public and stakeholders in developing that solution in accordance with their established arrangements<sup>14</sup>.

### 5.3. Further Engagement

- 5.3.1. The MOD is committed to continuing to engage with all those who have given their time and effort to provide valuable input into the consultation process. A number of useful contacts with key stakeholders have been made through the consultation process and methods for engaging with people have been established. Contact details of stakeholders, including people who have provided formal responses, have been recorded and these individuals will be notified when the key reports are available and decisions announced.
- 5.3.2. Further detailed plans for future public and stakeholder engagement, taking account of the many helpful suggestions received as part of the consultation process, are being developed in consultation with the SDP Advisory Group and a document detailing these will be published in due course. These plans will include further engagement that will be required regarding ILW storage site selection.
- 5.3.3. The process of applying for regulatory approvals and any planning permissions required includes site-specific environmental and safety assessments, which involve a period of consultation with local communities.
- 5.3.4. If the project's business case is approved within the MOD and relevant planning and regulatory permissions granted, the project will proceed to dismantle at least one complete submarine, refining its understanding of the industrial, regulatory and commercial processes so that lessons learned can be applied in the development of further, detailed plans.
- 5.3.5. When the MOD is satisfied that the appropriate processes for dismantling and ILW storage are proven, the project will seek internal MOD approval to dismantle the remaining submarines.

<sup>14</sup> For further information about NDA's stakeholder engagement arrangements see NDA's 'PSE Statement of Principles' at [www.nda.gov.uk/documents/upload/Public-and-Stakeholder-Engagement-and-Communications-Statement-of-Principles-August-2010.pdf](http://www.nda.gov.uk/documents/upload/Public-and-Stakeholder-Engagement-and-Communications-Statement-of-Principles-August-2010.pdf)





# PART B



What about more?

You can

- in the
- in E

When I have my say?

Your views is an important consideration of the options.

Number of ways you can share your proposals:  
• One of our team now  
• Take the feedback form in the Consultation pack and leave it with us, or post it to the address on the form

• Complete a feedback form online at [mod.uk/submarinedismantling](http://mod.uk/submarinedismantling)  
• Email your response to [DESSMIS-SDP@MOD.UK](mailto:DESSMIS-SDP@MOD.UK)

Which type can be used Internationally?

- We have... where the... awaiting a decision...
- point of waste (or Rosyth)
  - remote site owned by industry
  - remote site owned by MOD
  - site(s) owned by the Maritime Authority (NDM)



## 6. Collating the Responses

### 6.1. Overview

- 6.1.1. The Consultation Document asked respondents a series of questions (see Annex B) designed to test the MOD's conclusions and the evidence on which they were based. The consultation specifically sought to understand the arguments and evidence for the position a respondent took to help inform MOD's analysis, rather than simply to gauge support or opposition to particular options. This section explains how the responses have been summarised and organised for this report.
- 6.1.2. The consultation responses received were published at regular intervals throughout the consultation on the website, where permission was given for their publication. This report analyses and contains figures for all responses received, including those from people who asked for their response not to be published. As a result, numbers may appear to be inconsistent in places.

### 6.2. The Collation Process

- 6.2.1. The majority of the 14 questions asked "What are your views...." and whether the respondent felt that any important factors had been overlooked. The 15th question provided the respondent with the opportunity to include any further comments they wished to make. The questions were framed in a way that reflected the MOD's options analysis process and SEA, in order that they could be fed back into the analyses. In recognition that this made the series of questions relatively complex, the feedback form stressed that respondents did not have to answer all the questions.
- 6.2.2. Nevertheless, most respondents did answer all 15 questions. Others provided an answer to one question which may be equally relevant to a different question. Some submitted a letter which did not correspond directly to the questions asked. The coding scheme that has been used to analyse and organise the responses seeks to ensure that all pertinent points are considered together regardless of the format or context in which they were received.

- 6.2.3. The collation process involved reading each response and 'tagging' it according to a series of codes. The first of these tags seeks to capture the 'theme' to which the comment related, for example 'Technical Method' or 'SEA'. The second tag identifies the topic the comment is on, for example 'RPV' or 'Monitoring Arrangements'. The third tag records the point the respondent is making – whether it be a suggestion, scepticism or support for example. The system also serves to highlight any questions so they can be followed up by the project team. An answer making a series of points may have been allocated up to three sets of these codes. The codes allocated are based on the content of the responses received, not on the question asked. The numbers of comments assigned to each tag is given in the tables at Annex D and an example of a tagged comment is provided to help illustrate the process.

- 6.2.4. The summaries that follow are organised not by question but by the themes emerging from the feedback, although these will closely follow the questions posed in many cases. The attempt has been made to capture the essence of the arguments that lead the respondent to his or her particular position, rather than simply summarising them.

### 6.3. Statistics

- 6.3.1. The public consultation was designed as a qualitative consultation process to explore the issues and understand the reasons behind them, not as a poll, referendum or survey. The responding group was self-selected (ie those who responded chose to do so – they were not selected as a representative sample) and response rates varied across the geographic areas on which the consultation focused. The results therefore cannot be interpreted as representing the balance of opinion or a consensus among local communities or the wider population as a whole.
- 6.3.2. The collation process was not designed to draw any statistical conclusions therefore but to organise responses according to recurring themes and to identify those factors the MOD needs to consider. The statistics provided in Annex D are intended to provide a breakdown of the points, concerns and suggestions that respondents made under that theme to illustrate the most commonly raised issues.





6.3.3. The subsequent summaries use terms such as 'most', 'the majority', 'some' or 'a few' rather than exact figures because it is the substance of the arguments that will be the focus of MOD's analysis rather than the numbers of people making them.

6.3.4. No attempts have been made in the statistical analysis to weight any responses. For example the responses received from organisations, representing the views of a group of several people or even a whole constituency, count only once in these statistics. A further, more detailed analysis of responses from organisations follows in Section 17.

6.3.5. The team collating and coding the responses have made every effort to ensure that the respondent's intended meaning has been captured but it must be stressed that these summaries do not replace the actual responses as a source of information. The responses will all be carefully read and considered by the project team as part of its further analysis of the options.

## 6.4. Distribution of Respondents

6.4.1. The feedback form asked respondents to state whether they are a resident local to Devonport or Rosyth dockyards. 72 respondents ticked the box to say that they were a local resident: 61 of whom were from the Devonport area, eight from the Rosyth area and three did not specify.



## 7. Comments on Aims and Objectives

### 7.1. Overview

7.1.1. The first consultation question invited views on the SDP's aims and objectives. Around 300 comments were made on this subject; most related to the stated aims but some also suggested additional objectives for the project. The comments most commonly made were expressions of support for the stated aims. The next most frequent theme was to urge for greater urgency to start dismantling, followed by detailed points or suggestions about the next stages of the project.

### 7.2. Project Aims and Objectives

7.2.1. The vast majority of respondents supported the general project aims and thought them sensible. Arguments in favour of the project's aims and objectives included:

- The submarines cannot be stored indefinitely, therefore they will have to be dismantled and there are no overriding arguments for delay.
- It is consistent with radioactive waste policy and regulatory frameworks.
- It applies the waste hierarchy and enables radioactive and conventional hazardous wastes to be concentrated and better managed.
- Prompt recycling is more sustainable and will release valuable materials.

7.2.2. Some people were generally in favour of the proposed scope but their support was conditional eg safety must not be compromised by a desire to reduce costs. Others rejected the aims because, when followed through, they led to an unacceptable conclusion in their view - for instance dismantling in an urban location.

7.2.3. For a few, the submarines should never have been constructed in the first place but, as they had been, SDP was 'a necessary evil'. A few had more fundamentally rejected the scope of the project which, in their eyes, undermined the validity of the consultation exercise itself.

### 7.3. Project Start Date

7.3.1. Some comments on the practicality of the 'do minimum' option (ie continued storage of submarines afloat) are also relevant to this topic (see Section 8).

7.3.2. A large majority of those commenting on this topic argued for a prompt start, many suggesting that the decision making process had already taken far too long. As one respondent pointed out, it would be over a century between building the UK's first nuclear powered submarine and transferring its ILW in a disposal facility.

7.3.3. The most frequently quoted reason for taking action now was in support of intergenerational equity. As the current generations had built and used the submarines, it was their responsibility to dispose of them in the safest possible way rather than to leave later generations to deal with the problem. To do otherwise ran counter to the principles of sustainability.

7.3.4. Other arguments in support of starting now included:

- The submarines are deteriorating afloat and/or are becoming more costly to maintain in a safe condition.
- Space for safe storage afloat is limited.
- Other countries had in the meantime chosen a strategy and made substantial progress.

7.3.5. A counter view was that the problem would still be there for future generations, who would still be dismantling boats and managing ILW. However starting now precluded them from taking advantage of better options which might arise in the future or taking decisions with clarity about if, where and when the proposed GDF would be available; the SDP may actually leave a legacy harder to manage than the existing one. Some suggested that ways could be found to ease constraints such as afloat storage capacity and that the merits of a delayed start were not properly explored in the current analysis.





7.3.6. Some urged the MOD not to allow the project to be delayed by ongoing and irresolvable debate with those opposed to any nuclear activity. Others remarked that MOD decision-making should not be driven by the need for new submarines or by the commercial motives of potential contractors.

## 7.4. New Submarines

7.4.1. Some comments on the desirability of building new nuclear submarines are also relevant to this topic (see Section 17).

7.4.2. Dismantling of the new Astute class and future classes of submarine are outside the scope of SDP, although the project is required 'where possible to retain the flexibility to extend facilities in the future should a decision be taken to accommodate further classes'. A wide range of people commented on this approach.

7.4.3. Of those that agreed that future classes should be excluded, some did so broadly for the same reasons as the MOD - the project needed to be bounded somehow and this was the logical split.

7.4.4. Others agreed but for very different reasons, pointing out there may be broad agreement that 'legacy' radioactive waste had to be dealt with but that waste from 'new build' (including recent and future classes of submarines) posed different ethical issues. Agreement to hosting dismantling or storage facilities for new build waste could

not be assumed on the basis of agreement to their legacy equivalents. Some noted that CoRWM<sup>15</sup> has highlighted that there are different social, political and ethical issues associated with decisions to create new nuclear wastes compared to decisions on legacy wastes.

7.4.5. Some respondents acknowledged the pragmatic basis for exclusion, but argued that the problem must nevertheless be considered holistically, so that the overall optimum solution can be chosen to avoid unnecessary future costs and delays. Future classes could be designed with an agreed dismantling strategy in mind. An alternative view was that although flexibility to deal with future classes would be useful, it should not be given priority over finding the best solution for current classes.

7.4.6. Others argued that Astute and future classes should be definitively included, either on the grounds of taking responsibility and more efficient decision making, or because it was disingenuous to exclude them and misrepresented the eventual amount of dismantling work and ILW arising.

7.4.7. A few comments referred to the opportunities to learn lessons which could be applied to the design of future boats; one person argued the opposite position, that SDP was only acceptable if such information from SDP was not used in this way.

<sup>15</sup> Managing Radioactive Waste Safely, Committee on Radioactive Waste Management, July 2006; [www.corwm.decc.gov.uk](http://www.corwm.decc.gov.uk)



## 8. Comments on Removing the Radioactive Waste

### 8.1. Overview

8.1.1. The consultation sought people's views on the three technical options for removing the radioactive waste from the submarine:

- Separate the Reactor Compartment (RC) and store it whole (the 'RC option'). At some point in the future the RC must be size reduced and the waste packaged before disposal.
- Remove the Reactor Pressure Vessel (RPV) and store it intact (the 'RPV option'). It is assumed that the RPV will have to be size reduced and the waste packaged before disposal (although see Section 8.6 for details about the opportunity for 'direct disposal').
- Remove and size reduce the RPV to store it as packaged waste (the 'packaged waste option'). No further size reduction is required prior to disposal.

All options assume the waste will have to be packaged into boxes before disposal so the main difference between the options is the order and timing of the activities involved.

8.1.2. Those for whom minimising intrusion was the most important factor favoured the option of separating the RC and storing it whole. Those who emphasised the need to remove enduring liabilities as soon as possible and put weight on standardising handling arrangements (allowing flexibility of handling and storage and ensuring that waste is compliant for disposal in the GDF) tended to favour the packaged waste option. Those looking for a compromise that still took advantage of decay during storage and those who saw merit in the direct disposal opportunity favoured removing the RPV and storing it intact.

8.1.3. Nearly 400 comments were received on this subject. It is important to note that a number of people attached provisos to their position or weren't completely sure but indicated their inclination. The position most frequently expressed was in support of the RPV option but a significant number – nearly two thirds as many – supported the RC option. Support for

the range of dismantling options considered was the third most common comment in this category, followed by comments arguing for the 'do- minimum' option (ie continued storage of the submarines afloat instead of dismantling).

### 8.2. Impact of Risk Perception

8.2.1. A significant minority supported the RC option on the grounds that it entails less worker dose, fewer emissions to the environment and, they believed, is less vulnerable to accidents. The considerations which led people to arrive at this conclusion, however, appear to vary.

8.2.2. Some people accept the MOD's analysis that the doses and emissions from all of the options are very low, much lower than regulatory limits, and therefore conclude that these factors do not substantially distinguish between the options.

8.2.3. Others also accept the analysis of expected risks, doses and emissions but reach a different conclusion that, although the levels may indeed be very low, they should nonetheless be a major factor in the decision. This might be either because the respondent felt these were so much more important than other factors even without any measurable health impact, or because the respondent did not agree that there would be no measurable health impact at these levels.

8.2.4. A significant number do not accept MOD's analysis but on the contrary expect the risks, doses and emissions to be high; there is obviously deep anxiety among some respondents on this issue. These respondents were often genuinely anxious for their and their families' health and tended to support the RC option and for the dismantling and storage to be in a remote rather than an urban location. It is not necessarily clear whether these respondents reached their conclusions on the basis of pre-existing assumptions about the inherent hazards involved, or whether they had examined the MOD's analysis but subsequently rejected it.

8.2.5. Perceptions of the level of risk also played a part in the judgments respondents then made about the tolerability of those risks. Other factors that appeared to be taken into account included the particular nature of radiological risk, trust in the regulatory process, the independence and integrity of monitoring and trust in the MOD



and its contractors. Whether the respondent felt that MOD is the cause of its own difficulties and whether he/she saw the submarine programme as a national asset or not were also considerations in some people's conclusions.

8.2.6. No direct comments were received on the detailed risks, doses, and emissions calculations published on the project website but several responses asked for more detailed information to be released as it became available on:

- Predicted radioactive inventory in the reactor pressure vessel and primary and secondary cooling circuits for each of the submarines.
- The relative amounts of ILW and LLW in the RPVs of the different boats.
- The extent of any contamination outside the RCs.
- The detailed risk analysis for each of the proposed dismantling and storage options.
- MOD assessments of possible accident scenarios, risk mitigation and emergency response.

### 8.3. RC Option

8.3.1. The main arguments respondents gave for the RC separation option were:

- Simplicity.
- The hull provides tested and proven containment.
- Gains benefit from radioactive decay and so reduces worker dose.
- Full containment maintained so option with smallest risks, doses, and emissions.
- Minimises creation of new waste.
- Extensive international experience.
- Secure and cannot be stolen or misdirected.
- Maintains waste in visible form, as incentive to avoid production of more.

8.3.2. A respondent suggested that one advantage of the RC options was that it would make local investment in conventional ship breaking more likely, which would bring (the inference is) wider employment benefits than the limited radiological work.

8.3.3. A respondent pointed out that RC separation could be an interim step, as now seems to be the case in France. It could quickly free space and release the hull for recycling. Agreement for long term ILW storage facilities could then be reached without time pressures and full dismantling could proceed in due course.

8.3.4. The main arguments respondents gave against the RC cut out option were:

- The size and expense of the store and long term services required;
- Environmental assessment demonstrated significant effects of RC storage option;
- Size and weight mean more new facilities are required;
- They are very difficult to move, due to very large size;
- The RC option is impractical, so if selected nothing will actually be done;
- Size reduction, the 'difficult' work, still has to be done and is simply deferred to future generations.

8.3.5. A few argued that storage of separated whole RCs remote from the dockyards was credible, contrary to the MOD's assertion. Most, however, seemed to follow the implication of the MOD's analysis, that the difficulty of moving the RCs meant they would probably have to be stored locally. For some this major downside outweighed what otherwise was a preference for the RC option.

8.3.6. The relative size of the stores required is a major factor in the MOD's analysis but few comments were received related to this issue; just one respondent noted that the store footprint for RCs is over 10 times the size of the other options.

8.3.7. Some respondents referred to the previous consultations which identified a stakeholder preference for RC storage. A respondent suggested that these preferences were driven at least in part by the absence of any ILW disposal strategy at the time which has now been addressed and progress has now been made on



decommissioning civil facilities. While this may have inclined some who participated in earlier consultation towards other options however, that is by no means always the case.

## 8.4. RPV Option

8.4.1. The main arguments respondents gave for the RPV storage option were:

- Reduces ILW storage volume and cost compared to RC.
- RC offers best containment but is impractical so RPV is the 'next best' option.
- Best compromise between generational equity and risk/dose/emissions.
- Defers the cost of transport and size reduction until really necessary.
- Remains open to potential future opportunity to dispose of the RPV whole in the proposed GDF.
- Takes advantage of radioactive decay during storage.
- It constitutes the minimum processing that will still allow remote storage.
- Easier to handle than RCs and can be moved by land.
- Good fit with current skills available within the dock yards.

8.4.2. The main arguments respondents gave against the RPV storage option were:

- Less international experience.
- More intrusive, so greater risk/dose/emissions than RC separation.
- Sceptical about cost and dose savings over packaged waste.

## 8.5. Packaged Waste Option

8.5.1. The main arguments respondents gave for the packaged waste option were:

- Low Level Waste (LLW) and Very LLW in the RPV can be extracted and disposed of much earlier.

- The technology is proven - RPV components have already been removed and stored/disposed so it is a low risk option.
- Delaying size reduction of the RPV adds project risk and leaves MOD with significant liabilities - there is a greater risk of a future Government failing to fund the next stage.
- It is an ethically sound solution as it leaves minimal work for future generations;
- It is potentially less controversial than storing whole RPVs.
- There are more storage and transport options for packaged waste.
- The development of technology and skills happens early in the programme, complete process proven early.
- Packaged waste could be pursued with the RPV or RC options remaining available as a 'fall back' should it not prove feasible.

8.5.2. The main arguments respondents gave against the packaged waste option were:

- It is the most intrusive option.
- Is the worst in terms of risk/dose/emissions.
- Loses the benefits of dose reduction due to radioactive decay.
- Is perceived to be the potential contractor's commercial choice.

## 8.6. 'Direct Disposal' opportunity

8.6.1. The Consultation Document raised the possibility that it may be possible to dispose of RPVs directly into the GDF without size reduction, although the acceptance criteria planned currently do not allow for it. Comments received included the following.

- Size reduction is potentially hazardous and costly and involves additional worker dose, so the decision should wait until MOD knows if it is really necessary.



- Plans for the GDF must provide facilities for disposing of the RPV without size reduction.
- Varying the GDF design to accommodate whole RPVs will be difficult and packaging into standard packages will be required.
- Direct disposal reduces costs for MOD, but may cost the NDA many times more though increased repository structure and surface infrastructure costs.
- It is probable that LLW in the RPV will have to be separated before disposal so some size reduction will be needed anyway.
- Local communities will want to be engaged in any plan to dispose RPVs directly to the GDF.
- How very large items would be transferred to a GDF is also a relevant concern for any host community.
- It would set a precedent and other operators would seek to avoid size reducing their wastes.

## 8.7. Overseas Practice

8.7.1. There were a range of comments on overseas practice, including the following.

- MOD should ensure it learns the lessons from countries already dismantling submarines.
- If other countries use RC separation, why is the UK doing something different?
- France started by storing separated RCs but is now going to process them into a form compatible with eventual waste disposal.
- American practice is a simple, pragmatic approach which avoids complexity project risk.
- Could not the work be done overseas? Waste could be returned or substituted.

## 8.8. The 'Demonstrator'

8.8.1. In the MOD scheduling terminology, the first submarine to be dismantled will be called the Demonstrator. Relatively few comments were received relating to the Demonstrator but some points were made.

- The Demonstrator will produce valuable dose and emissions data and this should be made public. If they are as low as the MOD say, this will improve public and stakeholder confidence.



- Experience from the demonstrator may suggest a different option is preferable and it is important the project remains open to this.
- Key decisions must have already been taken, and associated permissions received, before the demonstrator is started so in reality there is little opportunity to change track in the light of experience gained.
- The option of starting the demonstrator in advance of the ILW storage issues being resolved has not been explored.
- To get the best value from the Demonstrator, it is important to be clear what uncertainties it is intended to resolve and what the key steps are.

## 8.9. Additional Analysis

- 8.9.1. Some respondents commented on the detail of the analysis used to distinguish between dismantling options.
- More work needs doing to investigate whether the packaged waste option can be pursued without undue radiological dose and risk.
  - More work is needed on levels of risk, dose, and emissions.
  - The estimates of ILW content in the RPVs are pessimistic - more realistic calculations may tip the balance in favour of packaged waste on cost arguments.
  - The current conclusions appear reasonable but further assessment may change that. There are shortcomings in the MCDA to date and a more systematic and robust underpinning is needed in the next phase.
  - More information on non-radiological aspects is required e.g. on option costs.
  - The process so far has not taken sufficient account of perceptions of negative impacts and should be developed to do so

## 8.10. Detailed Design

- 8.10.1. A range of comments was received relating to alternative ways of delivering the three options - decisions that will follow at the detailed planning stage, once the strategic direction is established.
- Practical details about how the work would be done are not visible in the consultation materials.
  - RPVs may be removed with the submarine still afloat.
  - RPVs may be dismantled in situ.
  - To meet safety criteria, reactor dismantling should be carried out in a sealed and controlled atmosphere and not in a dry dock.
  - Consideration should be given to rejoining the front and back ends of submarines after RC separation, to avoid dredging.
  - Removing RPVs using robots would minimise the risk of human exposure to radiation.
  - Demonstration of Best Practical Environmental Option / Best Available Technique (BPEO / BAT) will be required
  - Some detailed technical points were made relating to approaches to size reduction and contamination control.
  - The MOD should produce a 'virtual tour' for the public once the main elements of the process are agreed.

## 8.11. Low Level Waste

- 8.11.1. A few respondents commented that more attention needs to be paid to the processing and transport of LLW. Additional points made on this topic include:
- LLW processing capacity exists but throughput needs to be planned.
  - Some LLW is already shipped to Sweden for smelting, and it seems to be assumed that some SDP LLW will follow.
  - One respondent reports concerns over the safe shipping of LLW.
  - Concerns about the health effects of LLW which are debated by some.



## 9. Comments on Dismantling Location

### 9.1. Overview

9.1.1. The consultation invited views on the range of options put forward for the location of dismantling activities, on the MOD's proposal and on the rationale behind the proposal.

9.1.2. This question received the greatest number of comments, around 630, and a number of respondents commented on this subject only. Concerns or objections to Devonport or a city location for dismantling were the most frequent comments. The next highest set of responses was support for the dual site option. Of those who commented on the range of options, most supported them but a significant number thought there was more work needed in this area, followed closely by those who opposed the range of options given.

9.1.3. At the end of this section a summary is given of the few comments that were received relating to the subsequent activity of ship-recycling, whereby the remainder of the hull is broken up and recycled.

### 9.2. Dual Site Solution

9.2.1. Respondents who agreed with dismantling at two sites as proposed by the MOD generally did not repeat in their submissions the arguments set out in the Consultation Document. It seemed to be generally accepted by these respondents that both proposed sites had the necessary infrastructure, relevant experience, and were licensed sites. The following additional points were also made:

- The cost and risk of transporting submarines containing radioactive waste is disproportionate, so the submarines at Devonport and Rosyth should be dismantled where they are there.
- Insufficiently detailed cost data was presented to support the conclusions drawn.
- Having two sites offered flexibility and reduced project risk without costing much more, and protected more jobs.

- The proposal was the most consistent with the proximity principle.
- One respondent thought competition between two sites would have benefits.

9.2.2. On the other hand, a few suggested that if the costs were about the same, then work should be concentrated on one site. It minimised overheads and maximised the opportunity to gain experience and so improve performance.

9.2.3. Not everyone believed both sites were suitable: some thought one or other had particular advantages or disadvantages and some thought neither site suitable. A few simply expressed a preference based on where they lived but most set out their reasons, which are summarised below.

9.2.4. It was pointed out that both sites are run by Babcock International Group. One respondent thought the fact that both options depended on the same company was a risk while another thought it helped ensure that commercial profit motives would not become a major issue. A third point of view was that it would be preferable for the MOD to control the work directly rather than contracting it out.

### 9.3. Arguments specific to Devonport

9.3.1. The main arguments respondents gave for the use of Devonport for dismantling were:

- Most of the submarines are already stored there or will be at the end of their service.
- The work and investment would be important to Plymouth, especially in the present economic climate.
- Some respondents from the Rosyth area argued that since submarine refitting work has been moved to Devonport it should also accept the dismantling as the inevitable conclusion of that work.
- Refit work has synergies with dismantling and Devonport already has extensive skills and experience in submarine work.
- It will be the only site capable of defuelling the submarines.



- The seven submarines from Rosyth could be moved to Devonport at little extra cost.

9.3.2. The main arguments respondents gave against the use of Devonport for dismantling were:

- A city centre location is unsuitable on the grounds of risk.
- The impact on public perceptions of the area (see Section 11).
- Cost should not stop submarines being transported to Rosyth, which should dismantle its 'fair share'.
- It could mean transporting radioactive waste through the city.
- Plymouth hosts its fair share of facilities (both belonging to MOD and others) that have a negative impact on the community or the image of the city and it would be unfair to add submarine dismantling.
- Interactions with other projects such as concerns about the safety of locating activities on the same site as the proposed energy from waste plant (incinerator).
- New shipping movements may interfere with local ferry services.

Many concerns about the safety of using Devonport were vigorously expressed and were clearly strongly held.

#### 9.4. Arguments specific to Rosyth

9.4.1. The main arguments respondents gave for the use of Rosyth for dismantling were:

- Flexibility: greater flexibility and space, less impact on submarine operations
- Proximity: Rosyth is closer to the sites that respondents view as the most likely NDA interim storage and GDF locations and (by land) to the main submarine operating bases.
- It would be valuable, albeit relatively short-term, work pending a sustainable long-term future for Rosyth dockyard.
- Devonport had attractions in the short-term but Rosyth's advantages made it the sensible long-term solution.

- The area is less densely populated than Plymouth.

- Devonport dockyard is already very busy, reducing flexibility for both SDP and naval operations, so some or all of the work should therefore be at Rosyth.

9.4.2. The main arguments respondents gave against the use of Rosyth for dismantling were:

- Scottish nuclear policy: possible future national policy on nuclear matters and ILW in particular constitutes a major project risk (see also Section 12).
- Personal opposition to any nuclear-related activities in Scotland on principle.
- The infrastructure has been depleted so there is some doubt that the dismantling of the submarines could be undertaken without substantial additional resources.
- There would be fewer socio economic benefits to the immediate community as the specialist jobs would be taken by people from outside the area.
- Would hamper alternative uses of the site.

#### 9.5. Alternatives to Devonport and Rosyth

9.5.1. Several people felt that only Devonport and Rosyth had been properly considered as potential dismantling sites but the rationale for them being the only options was not convincing. They argued the SEA should have compared more sites and that there were viable alternatives that should at least be assessed to a similar level.

- The advantages of an existing site were recognised but there were long-term benefits of developing a new custom-built site. Given the scale of the project the costs would not be unreasonable and other barriers could be overcome.
- It would be feasible to move defuelled submarines by sea from Devonport and Rosyth to another location at an acceptable risk.
- All the activities, including dismantling and storage, should be based away from population centres. For a few, this was essential.

- There are advantages if the local community understands the nature of nuclear work but that also applies to some other sites.
- Barrow seems an appropriate location as the waste would be returned to the location where the submarines were built. It is also close to potential storage/disposal locations. Access may be complicated but the difficulties should not be insuperable.
- Faslane is in various ways a better option and the infrastructure problems could be addressed at a cost that was not disproportionate to the benefits.
- Several other possibilities were suggested, including Nigg Yard, Rosshire and Portland, Dorset.
- The question was asked if an overseas facility could be used.

## 9.6. Dismantling and ILW storage locations

- 9.6.1. When considered separately, there is perhaps less concern about hosting a dismantling facility than about hosting the ILW storage. For a significant number though, the two issues are inextricably linked and they object to a dismantling facility on the grounds that they could also be left with the storage of the ILW arising. This concern was because either a) economic or other arguments would result in a decision to site the waste store there or b) some or all of the waste would somehow end up remaining there 'by default'.
- 9.6.2. One position expressed was that any socio-economic benefits from the dismantling would be offset by the possibility of the ILW being stored on the dismantling site. Alternatively, the dismantling should take place closer to the area where the ILW will be stored so that the socio-economic benefits of dismantling will be felt by the community that also bears the 'burden' of hosting the waste.
- 9.6.3. Some respondents felt that the feasibility and acceptability of the dismantling sites storing the ILW had not been fully examined. More analysis was required, with a wider set of criteria.

## 9.7. Transport Issues

- 9.7.1. Several respondents commented on issues associated with moving submarines to a dismantling location.

- The hazards associated with transporting submarines which have been stored afloat for a number of years are not set out comprehensively enough.
- Movement of submarines containing radioactive material is reduced under the dual site option, which improves safety.
- Given the disparity in movements between Devonport and Rosyth-only options, why are the transport scores the same in the OE analysis?

- 9.7.2. Some comments were also made on the transport of ILW. For instance, transport to the proposed ILW storage site should be a factor in assessing the suitability of dismantling sites.

## 9.8. Ship Recycling

- 9.8.1. After the radioactive materials have been removed, SDP assumes that the rest of the hull will be transported to a properly authorised UK ship breaker for recycling. These activities were not a main subject for consultation but some people did comment on the MOD's plans.
- 9.8.2. There were some caveats about recycling potentially contaminated material or 'diluting and dispersing' radioactive metals but there was generally strong support for the concept of recycling the 'clean' hulls and using the money raised to offset project costs. Other points included:
- The relevant National Policy Statement says that there is a need for new facilities because existing ship breaking capacity is limited.
  - Transport arrangements to a remote ship breaker have not been looked at thoroughly enough and / or given sufficient weight. Insufficient detail was provided during the consultation.
  - A dismantling facility could be constructed at a ship breaking site, or ship breaking could be done at the dismantling locations. This minimises environmental impacts such as dredging and transport.
  - There are benefits in breaking the submarines at the dismantling site. The skills and hazardous waste disposal routes already exist
  - Ship breaking would create many more jobs than the nuclear work. On the grounds of fairness, the benefits should go to communities where it would offset the less welcome dismantling and/or ILW storage.



## 10. Comments on ILW Storage

### 10.1. Overview

- 10.1.1. The MOD was not consulting on the storage location for the ILW at this point but was seeking comment on its proposed way forward, which is to continue to work with the NDA to assess the costs and benefits of using its stores compared to MOD building a new facility. The possible locations for a bespoke MOD store were at the dismantling site or sites (the 'point of waste generation' (PoWG)) or on a commercially-owned or MOD-owned site away from the dismantling location.
- 10.1.2. There were over 600 comments on this issue, most frequently expressing opposition to storage at the dismantling site(s). The majority were strongly in favour of continuing to talk to the NDA, though it should be noted that this is likely to be strongly linked to the profile of respondents, most of whom were from or close to one of the candidate dismantling sites. The next most common comment was to argue for storage in an area away from centres of population. A high number of comments argued that a solution for disposal, the proposed GDF, should be in place first.
- 10.1.3. Comments on the MOD's option analysis methods are collated in Section 14. Several were related to the analysis methods and data which applied to this aspect of option selection in particular. For instance, the next phase of analysis should include a more systematic and robust underpinning of the MOD's current view, that there is little separation between the options to store ILW either at the point of generation or remotely.
- 10.1.4. Some felt the fact that specific sites were not being named and compared devalued the consultation exercise because this was the issue of most concern.

- Waste storage decisions should take into account assessment of broad socio-economic impacts and should have more direct stakeholder involvement in the analysis (see also Section 11).
- Safety should be paramount but there were many other issues to consider.
- Several respondents commented that the further decision making activities to be undertaken in relation to ILW storage were not clear.
- A few made a point of expressed strong support for the MOD's commitment that work would not start until the ILW storage arrangements were agreed.
- Some people worried that the way forward may simply be agreed between NDA and MOD without any chance for communities to have their say.
- A number of responses agreed that communities storing ILW would expect significant benefits whether in terms of an offset of risk or other form of compensation package.
- Responses from Scotland in particular noted that MOD planning needed to take account of Scottish national ILW policy.
- The focus of the project should be on long-term ILW management, starting with the location and nature of the proposed GDF and optimising the MOD's waste management plans within that framework.

### 10.2. General Comments

- 10.2.1. Some points apply to any of the options proposed for consideration.
- Some respondents wanted a more thorough analysis of the potential PoWG, MOD and commercial sites, for instance clarity on the form of waste (ie RC, RPV or packaged waste) each type of site could accept.

- 10.2.2. The comments made highlight that public confidence in particular will be a key issue for the future ILW storage site selection. They stress that it is essential that the MOD now clearly explains what further assessments are being undertaken, the timescales, and what opportunities there will be for stakeholder engagement and comment on ILW storage locations. The point was made that Government policy is not to force local communities to accept radioactive waste - concepts of volunteerism and localism were referred to and local acceptance will have to be secured.



- 10.2.3. Ongoing public confidence would require clear regulatory frameworks and openness on the part of the operator. A respondent advocated support to enable the community to independently monitor and assess the work and any discharges.
- 10.2.4. Several respondents commented on interactions with national ILW policy, including with the proposed GDF programme. The potential for delays to the proposed GDF and the significance of this risk was thought to have been underestimated by the preliminary analysis in the OCF report and elsewhere.
- 10.2.5. It was pointed out that GDF is not a certainty and the implications for the ILW storage host community needed to be clarified. The design life of the interim storage facility should be substantially longer than the proposed 100 year life span. Discussions about the acceptability to any potential GDF host community of direct RPV disposal and SDP wastes generally also have yet to be held.
- 10.2.6. Some thought the MOD was optimistic about the potential length of time for which ILW would need to be stored before transfer to the proposed GDF. The GDF may be ready around 2040 but it might easily be much later and then SDP's wastes would have to take their place in the queue. A hundred years to maintain safety and security seemed a minimum. Some believed SDP should wait until the GDF is available before creating any waste.
- 10.2.7. One respondent argued that the GDF programme should be accelerated to reduce the risk from interim ILW storage. One or two others said that the GDF programme should be abandoned in favour of near surface storage.
- 10.2.8. As discussed further below, some had specific comments on the NDA, MOD or Commercial sites but many seemed not to have a preference so long as it was a 'remote' site away from the dismantling site. Some wanted a new remote site developed to handle both dismantling and ILW storage.
- 10.2.9. A few suggested that the MOD should not make decisions that would finalise the waste form until a final decision was made on the proposed GDF. In principle, it is questionable to start something potentially hazardous without knowing how to deal with the wastes arising. Others recognised that any uncertainties about timescales, acceptable waste forms etc. would be reflected in risk, delays and added cost for SDP.

### 10.3. Point of Waste Generation Option

- 10.3.1. Comments on storage of ILW at the PoWG are summarised below, though it should be borne in mind that many saw dismantling and storage as part of the same activity.
- 10.3.2. One or two pointed to potential advantages of one or other proposed dismantling site as a storage location (eg on the basis of space or population) but many more argued for storage elsewhere.
- 10.3.3. Those expressing concern argued mainly that a city centre location is unsuitable on safety grounds and also that there will be a negative impact on public perceptions of the area and alternative uses for the site (see also Section 11).
- 10.3.4. PoWG was acknowledged to have attractions such as adherence to the proximity principle and avoiding moving waste around. The practicality and desirability of waste transport was discussed by several respondents. Some expressed a preference for rail or sea transport over transport by road. Some felt the impacts needed to be given much fuller consideration. Others were concerned that if waste was not moved off site it would further delay radiological clean-up of the dockyards. Given the uncertainties, it seemed to some like an open-ended commitment.
- 10.3.5. Some felt fairness should be accorded greater significance, although opinions on what the fair solution should be differed widely. Some argued that the site bearing the risk of the dismantling should not have to bear the storage risk as well, so it should be stored at a different (preferably remote) site. Others felt the site gaining from dismantling jobs should also have the waste.
- 10.3.6. Some felt the economic benefits outweighed the down side. For instance the ideal solution is to store as little as possible for as short a time as possible on site but pragmatically PoWG storage is an inevitable consequence of retaining this highly skilled engineering work.
- 10.3.7. Some concluded that storage should be as near to the dismantling location as possible, which meant either storing the wastes close to Devonport and/ or Rosyth or moving the dismantling activity nearer to the ILW storage site. The implication of the latter approach is that decision on dismantling and storage locations should be taken together and not sequentially.



## 10.4. NDA Option

10.4.1. Most respondents supported the NDA option. The reasons given included:

- The NDA option is more cost effective and transfers liabilities.
- Consolidated storage has potential safety and security benefits.
- The UK needs coherent through-life ILW management, which is more likely if there is a single organisation managing it. The NDA was better equipped to deliver a waste storage solution in a sensible timescale.
- Any decision to manage MOD and civil radioactive wastes separately would be based on 'political' perceptions of their difference and not 'scientific' ones.
- All MOD's ILW will eventually be transferred to NDA at the time of disposal, so why not sooner rather than later?
- NDA storage sites are already established and there would be no delays in consultation and planning applications.
- Given that SDP ILW is only 0.2% of the UK total, surely there must be capacity at one of the NDA sites.

10.4.2. Some supported national ILW consolidation but others suggested that this was unlikely to be realised, even for civil wastes. Depending on the perspective, this was either a desirable outcome (eg on the basis of the 'proximity principle') or regrettable (eg sensible and cost-effective solutions obstructed for 'political' reasons).

10.4.3. Some commented that the MOD's analysis did not give enough weight to objectives such as compliance with the proximity principle, which are ethical, logical and enshrined in some 'NDA' local authority policies.

10.4.4. Others however were deeply sceptical about the viability of this option. This was generally based on a concern that relying on a third party would add significant risks to the programme both in terms of time and cost. Another was worried that there may be limited capacity in NDA stores and that MOD wastes should not 'displace' civil wastes.

10.4.5. Although most seemed to appreciate the NDA's lead role in providing for the ultimate disposal of higher activity wastes, several respondents stressed that the MOD should take clear responsibility for the management of military radioactive wastes through to the point of disposal by managing them on MOD sites rather than handing them on to the NDA. In contrast, others thought only the NDA should take on the storage of wastes pending the proposed GDF and that any distinction between MOD and civil waste was meaningless.

10.4.6. This round of consultation did not target the public at potential NDA storage locations – though they would be engaged if the NDA option were taken forward – so few responses were received from them. However, some key local stakeholders were expressly invited to participate. The points they made include:

- When it is available, the MOD's joint assessment with the NDA on using NDA facilities should be released to the public.
- The published analysis is incomplete because there is no NDA view on types of site and potential locations.
- All potential waste sites need to be considered on an equal footing, both MOD/ Commercial and NDA, to choose the 'best' option – not first deciding on the type of site.

10.4.7. A more developed assessment is required of the cases for using NDA storage facilities (or indeed new storage facilities at MOD or commercial sites) taking into account the views of relevant stakeholders. Assessments should take into account the particular circumstances of and constraints applying to each site as well as associated transport implications. Any proposals would need to be strongly justified to show that the environmental, social and economic benefits (including compensation) outweigh any negative impacts and planning impacts must be acceptable.

10.4.8. It was pointed out that some NDA site local authorities have their own planning and policy positions which needed to be respected eg decommissioning wastes should be managed on the site where they arise, unless a rigorous assessment demonstrates that this is not practicable. It could not be assumed that NDA sites would accept ILW wastes. Irrespective of any other factors, local authorities would need to be convinced that a rigorous assessment had been carried out for land adjacent to the dismantling site before new and more distant sites were considered.

10.4.9. If it becomes clear that there is a robust case for using NDA storage facilities, any further process of assessment should be open to stakeholder engagement and comment. Specifically, the NDA should engage the relevant local authorities in the process of identifying which of its storage facilities and sites could be used. Suggested criteria for site acceptability included:

- The benefit clearly outweighs the detrimental effects, both from the national and local perspective (taking into account the case for community benefits).
- All practicable measures are taken to minimise the adverse effects of development and associated infrastructure.
- Acceptable measures are in place for decommissioning and site restoration.
- Arrangements are made for suitable local community involvement during the development, decommissioning and restoration of a storage site.
- The reasons for rejecting alternative locations and methods are clearly explained.
- Compliance with all relevant environment, safety and security standards/ best practice.

10.4.10. Several people offered an opinion as to which NDA site might be most suitable, including Sellafield, Dounreay, LLWR, or 'generation sites' – sometimes with the qualification that the host community should have volunteered.

10.4.11. One respondent was sceptical about the NDA option, on the basis that if the NDA was willing to take the waste this would have been confirmed before the consultation and therefore it could be assumed that the PoWG option would ultimately be selected.

## 10.5. MOD or Commercial Site Option

10.5.1. The consultation did not target the public at potential MOD or Commercial storage locations, so conclusions should not be drawn about the fact that there were relatively few comments on this option.

10.5.2. Many of the points regarding analysis, engagement and community benefits listed above in relation to the NDA option would presumably apply equally to any proposed MOD or Commercial site. MOD or industry will, for instance, be required to engage with the relevant local authorities in identifying which sites could be used – paying due regard to local development plans, the need for impact mitigation and the case for community benefits.

10.5.3. Some pointed out that if a non-MOD site is not available, then it is incumbent on the MOD as the waste owner to provide suitable storage on an MOD site. Other respondents argued that on grounds of responsibility and fairness MOD sites should store MOD-created waste.

10.5.4. Considering the options in more detail, one pointed out that there were a number of factors that may constrain the choice. Some suggested that SDP ILW should not be moved onto sites which:

- Previously only generated LLW.
- Would otherwise have been cleared of radioactive material before SDP wastes are transferred to the proposed GDF.
- Are ear-marked in the national interest for other purposes.

10.5.5. Some respondents identified potential advantages for the use of MOD or commercial storage sites. It was more likely that problems would be properly dealt with and the MOD would not be dependent on the NDA. The NDA was believed to have little incentive to make progress and therefore might take years to come to a conclusion, especially given potential opposition from some civil nuclear communities to taking MOD wastes. One or two expressed a preference for the MOD to manage the wastes, the implication being that a commercial organisation might be less reliable or place undue weight on profitability.

10.5.6. Several comments suggested that any reliance on a third party store would involve a very high degree of uncertainty and issues of liability management could also be very complex.

10.5.7. Some suggested that the wastes could be stored at a new greenfield or brownfield site, though others noted that this assessment had been done and repetition risked unnecessary cost and delay. A few specific sites or type of site were mentioned, including a remote UK or overseas island site and existing overseas waste sites eg in the US.



# 11. Comments on Community Impacts

## 11.1. Overview

11.1.1. Throughout the responses received, a significant concern expressed was the impacts any SDP activities will have on the community that hosts them. These included issues of public confidence, perceptions of an area, socio-economic factors and effects on tourism / the development of other businesses. There was a widespread view that more coverage should have been given to socio-economic issues in the MOD analysis and consultation materials.

11.1.2. Around 350 comments were made specifically on the impact of any activities. The comments are, by their nature, more dispersed than for other subjects with a number of comments identifying areas where the respondent felt more work needed to be done. Impacts on health and the environment were the two highest areas of concern, each receiving an equal number of comments. This was followed by the closely related theme of risks to safety or of accidents. The effects on the economy or business and on tourism were the next most frequently mentioned topics.

11.1.3. A strong theme was that decision making must look not only at direct impacts but also indirect effects – such as perceptions of the area – and ways to mitigate negative effects, in conjunction with any safety and environmental impacts. Some went on to criticise the MOD for not treating socio-economic impacts seriously because it only covered direct impacts in its analysis and the Consultation Document. Points made included:

- Any burdens on local host communities should be recognised and taken into account in decision making.
- Not enough consideration was given to socio-economic impacts, bearing in mind that Plymouth is marketing itself as centre for (eg) tourism and education.

11.1.4. The project team's role is to assess direct impacts of the various options and its analysis and Consultation Document were framed accordingly. Wider topics, such as socio-economics, are nonetheless very important issues that will be considered as part of the wider decision making process alongside the team's technical recommendations.

11.1.5. The final decisions will be made by the MOD's Investment Approval Committee, a panel of senior MOD personnel who will take into account both the technical analysis and wider socio-economic, radioactive waste and military matters. Local democratic and planning processes also take into account local and regional impacts.

11.1.6. This consultation report therefore collates comments on a wide range of socio-economic matters, whether or not they are within SDP's remit, recognising that some will need to be taken into account at later stages in the decision making process.

## 11.2. Public Confidence

11.2.1. Many respondents emphasised the need for the solution to inspire sufficient public confidence.

11.2.2. No one suggested any specific measures of confidence that might be applied but some did say that it should be a stated project objective. Precedents were identified in CoRWM's terms of reference and the 'public perception and acceptability' criterion applied during the NDA's 2010 Plutonium Credible Options Analysis<sup>16</sup>. Having it as a project performance criterion as opposed to just an option assessment criterion would ensure that engagement and communication continued through the decision making process and into the operational phase.

11.2.3. A few respondents seemed to question whether, given the nuclear context generally and campaign activity, it would ever be possible for any option to gain the confidence of people from all perspectives. The result would be the status quo, which had higher levels of risk attached. Others advanced counter-arguments which implied that given sufficient information, communities could and should be trusted to make sensible decisions.

11.2.4. The point was made that it is the future decision making on the ILW storage location that has the greatest potential for controversy. An 'open, reasoned, and principled' approach would thus be required if a sufficient degree of public confidence was to be maintained. Communities would need to be more comprehensively engaged in the development of the options and assessment process; CoRWM Phase 1 illustrated characteristics which would also be desirable in a MOD waste facility siting process.

<sup>16</sup> [www.nda.gov.uk/documents/upload/Plutonium-Credible-Options-Analysis-redacted-2010.pdf](http://www.nda.gov.uk/documents/upload/Plutonium-Credible-Options-Analysis-redacted-2010.pdf)



- 11.2.5. Another observation was that feedback on public confidence issues relating to type of storage site is likely to be more limited as, understandably at this stage, no local consultation will have taken place in areas other than at the sites of waste generation. MOD should be careful not to let a lack of feedback from other types of sites skew its subsequent assessment. It could be that subsequent direct engagement with the relevant communities would find that significant public confidence issues arise.
- 11.2.6. The Consultation Document was clear that no dismantling will take place until the ILW storage location is agreed – sometimes described as ‘nothing is agreed until everything is agreed’. However, a few respondents were either themselves not confident that this commitment could be delivered, or said that although they personally believed it, others in the community did not.
- 11.2.7. A range of issues affecting public confidence were explored by respondents, including: the adequacy of information and level of understanding of the project and any associated risks; independent monitoring of the environment and open, timely reporting of results; and confidence in emergency management arrangements and local evacuation plans.

### 11.3. MOD’s Community Relations

- 11.3.1. Factors that affect trust included perceived reductions in MOD capability and the impact of otherwise unrelated issues concerning the management of radioactive material. The MOD response to the discovery of contamination at Dalgety Bay (which is quite close to Rosyth) and supposedly poor relations with SEPA were said to be eroding trust in the MOD generally and specifically in its commitment to responding quickly and convincingly to any problems that might emerge in the future in relation to legacy wastes.

### 11.4. Impact on Perceptions of the Community

- 11.4.1. A significant proportion of respondents from the Devonport area commented on the need for a net socio-economic benefit to any host community, taking into account direct and indirect employment from the project, but also any direct or indirect benefits from wider MOD investment. Direct or indirect negative impacts also needed to be assessed and taken into account.
- 11.4.2. A significant number of respondents clearly feel that the incremental risk from SDP operations or a negative image for the area will have a major impact and that this will outweigh any benefit in terms of jobs maintained in the dockyards. A few respondents also fear the impact on property values and local businesses.
- 11.4.3. Some people distinguish between perceptions driven by dismantling-related activities and longer term ILW storage, some do not. The impression is, however, that in neither case do they expect the media or people from outside the area to do so and that the perceptions of risk among these ‘external’ parties may be / are likely to be inflated.
- 11.4.4. Concerns were expressed about the local area being perceived as a ‘scrap yard’ for hazardous materials:
- Some took the view that a visible accumulation of decommissioned but still contaminated submarines encouraged perceptions of the dockyards as a scrap yard. To avoid this, they either needed to be moved elsewhere or dismantled and the hulls (and ideally the ILW) sent elsewhere. Local Authorities in particular stressed the need to do something about the laid-up submarines.
  - In contrast, other respondents seemed more to associate the dismantling activity rather than the afloat storage with perceptions of being a scrap yard. In which case, extended afloat storage seemed much less of a concern.
  - There was a third view that, far from branding the area as a scrap yard, dismantling would be seen as a high value, technically skilled activity providing quality employment. Some pointed out that Devonport is an important naval dockyard on which a significant proportion of Plymouth’s income depends so it is a partnership that should be fostered. One respondent suggested that the work provided by the dockyard has supported Plymouth in difficult economic conditions.
- 11.4.5. A concern expressed by both communities was that once the perception took hold that the area was associated with the dismantling of radioactive or otherwise hazardous items, and infrastructure to do it was in place, other projects of a similar nature might follow (which may be welcome or not depending on one’s perspective).



## 11.5. Impacts on Tourism

11.5.1. A few respondents pointed to potential tourism benefits if one of the old submarines were to be made a museum. Reference was made to the value of the former French Navy nuclear submarine Le Redoubtable which is now a museum in Cherbourg. One respondent suggested that all the early classes (from Dreadnought to the Resolution class) should be used to create a Submarine Museum in Rosyth. This view was often driven by a desire to showcase British engineering skills and one respondent in particular stressed that this was important in view of the submarines' place in the UK's engineering heritage.

11.5.2. However many more clearly feel that the incremental actual or perceived risk from SDP operations, or a more general association with nuclear activities, will have a major and detrimental impact on (for instance) the tourism and education sectors. This was a major concern for members of the public in Devonport in particular.

## 11.6. Impacts on Local Employment

11.6.1. The MOD expects that the initial dismantling work will directly sustain between 50-100 skilled jobs at the dismantling site(s) (nor including construction work required or other ancillary jobs) rather than creating large numbers of new jobs. Examples of points made by respondents in relation to this type of direct employment include:

- The project would bring in valuable work within the dockyard and wider supply chain.
- The dockyard communities and wider regions have been hit by recession and need the jobs SDP would bring.

Or, alternatively:

- The community should not trade the need for jobs with a project it does not necessarily want.
- Any increased risk will always outweigh the employment benefits.

11.6.2. Another route for potential socio-economic impact would be through the prospects of employment from alternative uses for the dockyard areas. For instance, some wanted assurance that the use of Rosyth for dismantling would not compromise container port plans. One or two argued that more effort should instead be

put into attracting non nuclear activities to the dockyards such as the renewable energy or ship building sectors.

## 11.7. Strategic Benefits

11.7.1. Some people perceived a link between the dismantling project and wider submarine refit work, particularly at Devonport. A few supported SDP because it made it more likely that the refit work would remain at Devonport, others seem to oppose it for the same reason.

11.7.2. It was suggested that Local Authority support for SDP may depend on agreement of a clear strategic vision for the longer-term maintenance and development of naval dockyard work. Several people argued that the number of direct jobs was small and that the MOD would have to offer other substantial skill and resource linked work to gain the support of the public and local authorities.

11.7.3. A strong line of argument among stakeholder organisations in particular was that packages of benefits should be provided for such communities to offset any actual or perceived negative impacts from dismantling or (particularly) ILW storage work being undertaken behalf of the nation. Specific points included:

- A clear, well funded, plan would be required to ensure that the City's growing reputation is preserved and enhanced.
- Investment in infrastructure would be justified, to ensure the city attracts investment irrespective of any nuclear activities.
- In line with NDA practice in West Cumbria, MOD should consider relocating other activities and office functions to the city as part of a benefits package.
- NDA communities hosting LLW/ILW storage sites are recompensed and the same should apply to SDP wastes.

11.7.4. Those respondents who are opposed to nuclear activities in principle were likely also to suggest that the principle of 'nuclear offset' should apply. In this case, as well as providing financial and infrastructure benefits, as far as possible efforts should be made to reduce risks and doses from other nuclear operations or liabilities in the vicinity so that the burden was not increased.

## 12. Comments on Other Contributory Factors

### 12.1. Overview

12.1.1. In addition to impacts on the community, some other issues were raised which the project's analysis identified as Other Contributory Factors (OCF) – ie issues that cannot be quantitatively assessed in terms of performance or cost.

### 12.2. Commercial

12.2.1. The main concern expressed was that the commercial interests of potential contractors should not drive the MOD's decision making; some feared that this was already the case. Some respondents believe that potential contractors would prefer the MOD to choose a packaged waste option because it involves more work in the short term. One or two suggested the dismantling work should not be carried out by a commercial organisation and one or two more raised issues about foreign ownership.

12.2.2. Given the ultimate ownership of the contractors involved, one or two respondents noted potential conflicts of interest within the early stages of the operational effectiveness analysis (specifically the Technical Options Study). Potential synergies for the company currently conducting refitting work were noted.

12.2.3. Industry respondents argued that the MOD should engage with a broad range of supply chain organisations and ensure there is a sound competition and contracting strategy.

### 12.3. Continuity of Funding

12.3.1. SDP will run for many decades and cost a large amount of money. One or two respondents pointed out that it would be tempting for Government to reduce funding if the financial situation deteriorated; the implication being that the host community may be left with submarines or wastes to process or move on to a final destination.

### 12.4. Consistency with Policy Frameworks

12.4.1. The few who commented on this topic supported the MOD's position that making a prompt start and making the wastes passively safe was consistent with radioactive waste management frameworks. The majority of the policy-related comments were on the relevance of Scottish radioactive waste policy, typically acknowledging that the submarine wastes were explicitly excluded but nevertheless suggesting its principles were relevant as the Scottish Government may move to extend them to SDP. Specific points made included the following:

- It would have been prudent for the Consultation Document to address the fact that Scottish government policy is to manage nuclear waste in near surface facilities.
- The lack of a clear Scottish policy on submarine dismantling and the disposal of ILW to some extent devalues the consultation and introduces project risk from any future decision.
- It may be realistic to consider dismantling boats currently at Rosyth but future Scottish government policy is unlikely to support any transfers from Devonport.
- The potential impact of future Scottish independence during the lifetime of the dismantling process or storage of ILW needs to be assessed. Dual site dismantling may be preferable but contingency plans are needed.
- The Consultation Document states that all SDP wastes are destined for the proposed GDF, but confirmation is sought that this applies also to any SDP wastes arising at Rosyth.
- It would be unfair on the Devonport community if it had to store and dismantle all the nuclear submarines, when the MOD's policy means that Scottish bases benefit from hosting the operational boats.



## 12.5. Other Projects

- 12.5.1. Several respondents commented on the relevance of the proposed Devonport Energy From Waste plant or 'incinerator'. Concerns included:
- Cumulative health impacts are not being taken properly into account.
  - Cumulative impacts on perceptions of the area have not been taken properly into account; the area does not want to be known for 'dirty' industries.
  - There are a number of unwelcome projects in Plymouth already. These should not be imposed disproportionately on one community, particularly one that has problems with disadvantage.
  - The presence of the EFW plant and SDP would make it impossible to identify their separate health impacts through monitoring.
  - MOD statements that, on the basis of both licensing and technical grounds, there was no possibility of the plant being used to dispose of radioactive waste might seem categorical, but could nevertheless not be trusted.
  - The plant will be a potential source of hazard to MOD operations e.g. should there be an explosion.

## 12.6. Sustainability and Local Plans

- 12.6.1. Opinions are divided as to whether the project contributes to local or wider concepts of sustainability. For some, any project involving radioactive waste processing and storage cannot, by definition, be sustainable or be part of a sustainable economy. For others, the processing of decommissioned submarines and the radioactive wastes they contain must be an improvement in sustainability terms, even if the wastes were to remain locally, because the remainder of the materials are now being reused/ recycled. Some comments also related inter-generational equity arguments to sustainability, mainly arguing that it was less sustainable to delay starting because it placed more of the burden on future generations.
- 12.6.2. The point was made that SDP developments should not be allowed to impact on areas zoned for commercial or other uses. Other comments were made about the consistency or otherwise of the proposals with formally adopted local plans and these also apply to the SEA (see Section 13).



## 13. Comments on Environmental Issues (SEA)

### 13.1. Overview

- 13.1.1. The SEA Environmental Report and Non-Technical Summary were published alongside the Public Consultation Report, in line with regulatory requirements. It asked four questions about environmental effects and the assessment. These were also listed in the Consultation Document.
- 13.1.2. Over 500 comments were received. The most frequent comments were on monitoring arrangements, closely followed by the number of comments on the range of environmental effects the SEA had identified. The conclusions of the SEA had the next highest response rate. The nature of the comments on the SEA was quite dispersed, with a high number making suggestions, detailed points or identifying further work to be done.

### 13.2. Comments on SEA Process

- 13.2.1. In general, the respondents were content with the way in which the Environmental Report was structured. Some concerns were expressed about the high volume of material, which was seen as a disincentive to full and effective engagement and made it difficult in some cases to find specific information.
- 13.2.2. Although most respondents thought that the Non-Technical Summary was very good, a few asserted that important information was left out (for example on proposed avoidance and mitigation measures) or that it over-simplified the findings of the SEA by aggregating the numerous results tables into a few summary tables.
- 13.2.3. The scope of the SEA had already gone through two rounds of consultation with statutory bodies. As such there were few comments made about the environmental issues being assessed, although the non-inclusion of dismantling sites shortlisted in the Site Assessment Report was questioned, as was the way in which effects on statutorily-protected habitats, heritage features and landscapes were scored.
- 13.2.4. Finally, it was questioned whether the SEA had indeed considered the cumulative impacts of the SDP with defueling, operational discharges and other local activities.

### 13.3. Comments on Environmental Effects

- 13.3.1. The first environmental question asked 'do you think that the environmental report has captured the significant environmental effects of the SDP? If not, what potential effects do you think we have missed, and why?'
- 13.3.2. Of the 149 relevant responses to this question, around a third of respondents were content that the environmental report had properly captured the significant environmental effects.
- 13.3.3. Of those who did not think that the report had captured the significant effects, the greatest concerns centred around the lack of data on the likely radioactive discharges associated with the different dismantling options and with ILW storage; and the effects that any radioactive discharges could have on local populations and the environment.
- 13.3.4. There was a strong perception from some members of the public that the SDP would inevitably lead to an increase in both radioactive discharges and the risk of a radiological accident. As a result, it was felt that the SEA had either under-played or 'glossed over' the potentially significant impacts that any increase in dose could have on peoples' health. This view was not expressed however in any of the organisational or Regulator responses.
- 13.3.5. A parallel concern was expressed by some individuals about the risk of increased discharges into the wider environment and the effects this could have on wildlife, water quality, fisheries and local beaches. Some concerns were noted about the transparency of the relationship between the Environment Agency and the MOD and the ability of the regulatory agencies to enforce standards effectively against another government department.
- 13.3.6. Some respondents felt that the SEA also down-played the risks of transporting submarines. They argued that relying on statutory safety requirements was not good enough and did not allow the safety of the options to be properly compared.
- 13.3.7. Assertions were also made that keeping radioactive discharges below statutory discharge limits was not adequate, as these could not guarantee people's safety, given that any dose



has the potential to cause harm. That acceptable safety levels can evolve (usually downwards) over time, and that the effectiveness of the Regulatory Authorities could be called into question were also given as reasons why the SDP should reduce further harm to the environment and to the public as far as possible, rather than accept discharges below permitted levels.

13.3.8. The lack of information about the possible wider socio-economic effects of the SDP was also widely cited as an area of concern – particularly in Plymouth. (These views are covered in more detail in Section 11). The SEA gave an estimate of the likely direct and indirect jobs associated with the work, and the degree to which these jobs would have an effect on the local economy. However, no assessment was made of the likely knock-on effects on the wider economy.

13.3.9. Specific concerns were centred around the possible impact that dismantling could have on inward investment, job creation, the development of a 'green' economy, tourism and the overall perception of the area as a destination of choice. One respondent considered that the report had missed the effects that the SDP would have on the public perception of Plymouth as a safe and pleasant place to live or move to. Many felt that the jobs associated with the project could not offset the potential damage to the area's reputation and that more detailed analysis of this issue will be needed before any decisions are made.

#### **13.4. Comments on Baseline Information**

13.4.1. The second question asked 'is there any other baseline environmental information, relevant to the SEA, that we have not included? If so, please provide details.'

13.4.2. This question does not relate directly to the findings of the SEA, but was included to test the integrity of the statutory process as a matter of SEA procedure. The question was chiefly aimed at Statutory Bodies, with the baseline information contained in the Annex to the Environmental Report on the SDP website.

13.4.3. Being a more difficult question for the lay reader to understand and comment on, the responses received covered a wide range of issues and concerns, with only a minority being directly relevant to the question itself. As a result, the majority of responses have been considered with responses to the other questions.

13.4.4. Of the 72 relevant responses to this question, just under half of respondents were generally content that the Environmental Report had captured all relevant baseline information. Those who were

not content cited a lack of information visible in the Environmental Report on the following issues: background radiation levels and current radioactive discharges into the environment; the radioactive inventory of the submarines; the health profile of the local population; and the skills profile of the workforce. It was also noted that some of the baseline information in the Annex for Devonport was either missing or had been updated since the Report was published.

13.4.5. It was also suggested that, since both sites are in or close to urban areas, it would have been useful to have more information on site context (eg residential areas, schools etc.) in the Environmental Report for those not familiar with the locations.

#### **13.5. Comments on Monitoring Arrangements**

13.5.1. The third question asked 'Do you agree with the proposed arrangements for monitoring the significant effects of the SDP option, detailed in the Environmental Report? If not, what measures do you propose?'

13.5.2. Of the 104 relevant points made, around half were generally content with the proposed monitoring arrangements, although it was pointed out by some individuals and organisations that further monitoring arrangements will need to be developed once specific ILW storage sites are identified.

13.5.3. There were a number of reasons given why respondents felt the arrangements were not sufficient. Some felt that the monitoring proposals generally were not detailed enough, and should address the potential concerns of local residents. Others noted that the monitoring proposals should have been included in the Non-Technical Summary.

13.5.4. Many people felt that radiation monitoring should be more proactive around the possible sites and not rely solely on the existing Radioactivity In Food and the Environment (RIFE) arrangements. By contrast, one respondent argued that the resource and expense of monitoring should be proportional to the likelihood of unanticipated effects occurring and should be aligned with data collection requirements for other purposes; i.e. do not develop expensive SDP-specific monitoring but strengthen the existing monitoring arrangements of site radiation levels and publicise them more.

13.5.5. Other perceived deficiencies in the monitoring arrangements included those about potential long-term health effects, the wider socio-economic effects that were particularly a cause of concern for Plymouth respondents, and the

long-term effects of coastal change and flood risk. Further indicators were suggested to monitor potential loss or damage to habitats, species, geological resources, soils and landforms, and to monitor how much existing contaminated land is remediated

- 13.5.6. A view was expressed by several respondents that monitoring arrangements could never be sufficient because they are inherently reactive and would not stop things going wrong. On a related theme, doubts were voiced by some members of the public about the independence and power of the Regulatory Authorities to control MOD or contractor activities, and that the independence, integrity and completeness of the monitoring data would be in question.

### 13.6. Comments on Avoidance and Mitigation Measures

- 13.6.1. The fourth question asked 'do you agree with the conclusions of the Report and the recommendations for avoiding, reducing or off-setting the significant effects of the SDP options? If not, what do you think should be the key recommendations, and why?'
- 13.6.2. The majority of responses were on the overall conclusions of the SEA. A small number of views and suggestions were made about how the proposed avoidance and mitigation measures could be improved; particularly with respect to providing wider socio-economic and community benefits to mitigate the perceived disadvantages of hosting submarine dismantling.
- 13.6.3. The point was also made that minimising the complexity and number of steps (eg minimising transport or the number of cuts into the activated materials) should be further promoted as an effective avoidance measure.
- 13.6.4. Whilst it was also recognised that, at this strategic stage, the proposed measures can only be illustrative and will need further development, there was a clear appetite for more targeted proposals with measurable outcomes to be put forward, and for them to be made fit-for-purpose, open and transparent.

### 13.7. Views on the Overall Conclusions of the Environmental Report

- 13.7.1. The overall conclusions in Chapter 7 of the Environmental Report were not listed in the Non-Technical Summary but were referenced throughout the document. As a result, a wide range of viewpoints was given, many of which were inevitably similar to those in Question 1.
- 13.7.2. Of the 108 relevant responses, around half supported the conclusions. Of those that did not, the biggest concern was again that the risks of undertaking dismantling activities for people's health and well-being (especially in the built-up areas around Devonport) had been underestimated. These concerns centred on accident risk, projected radioactive discharges, the effects of anxiety on health and indirect socio-economic impacts.
- 13.7.3. The Environmental Report's conclusions about the projected (very low) radiological doses to the public, discharges into the environment and accident risks were criticised, given the lack of technical data available at this stage on projected inventories and emissions of each technical option (and the lack of a clear definition of what constitutes a 'significant' effect in the NTS). Related concerns were expressed about the conclusion that adhering to Statutory controls during dismantling, transport and storage will prevent any adverse effects.
- 13.7.4. A small number of respondents thought that the benefits of continuing afloat storage were underestimated with respect to minimising radioactive discharges and accident risk. Criticism was also expressed about the lack of detailed environmental assessment for the ILW storage options.
- 13.7.5. Some stated that they believe certain elected representatives remain opposed to submarine dismantling, even after reviewing all of the evidence, and therefore question the conclusion of the assessment that the MOD's proposed option would not have any significant environmental effects.
- 13.7.6. Although out of scope of the SDP (and hence the SEA), some respondents felt that the report's conclusions were incomplete because they did not include the obvious environmental issues associated with developing the GDF – or with what the effects would be if the GDF was not built. Others thought that the report missed the opportunity to recommend that future environmental impacts be minimised by addressing the issues of defuelling at Devonport and by moving away from nuclear propulsion for new vessels.



# 14. Comments on the Approach to Analysis

## 14.1. Overview

14.1.1. All respondents commented on some aspect of the conclusions from the analysis. Many of these comments had implications for the analysis methods and data used so far and the MOD will take account of them in updating its analysis. Some additional options have also been proposed and reference has been made in the relevant sections of this report as appropriate.

14.1.2. Questions 5-7 asked specifically about the methods used, the advantages and disadvantages assessed, and the other factors considered and these responses are summarised in this section.

14.1.3. A high number of comments relating to the analysis and decision making process were recorded – more than 800. The majority of these comments were on matters of detail, suggestions and noting further work needed. The topics that had the most comments were the range of options presented and the advantages and disadvantages put forward; something the consultation questions had asked about directly. The weightings given to the various factors was also a key issue though, receiving nearly as many responses.

## 14.2. MCDA Model

14.2.1. The method that MOD uses to assess a number of options is called Multi Criteria Decision Making Analysis (MCDA). Some raised concerns about the process by which the options had been arrived at, prior to the MCDA analysis. This process did not appear to be transparent with regard to the candidate dismantling sites.

14.2.2. Generally, respondents seem to appreciate the thoroughness of the MOD's analysis but there were a range of comments on both the general approach and matters of detail:

- A more detailed sensitivity analysis of the criteria and weightings is needed to instil faith in the process.
- Some detailed criticisms were made about the optioneering methodology which should be addressed in the next iteration of the modelling.
- The treatment of dose is inadequate – the analysis should recognise the benefits of achieving As Low As Reasonably Practicable dose rates, not just keeping within statutory limits.

- Options should be scored according to the margin by which they meet regulatory safety targets and sensitivity testing must address margins.
- Can fundamentally important considerations such as human health impacts really be compared with factors of lesser significance such as visual impact?
- Independent process design and facilitation is important. Contractors for an early phase of the MCDA process were not independent of the MOD's dockyard contractor.
- Potential commercial lobbying for one or other options is bound to influence the process, which undermines its validity.
- The skills and experiences of those involved in the options assessments should have been made clear, particularly with regard to radioactive waste management expertise.

14.2.3. Other sections of this report include comments on the need for further information or further work on specific topics within the overall analysis, notably on risk-related issues and potential accident scenarios.

## 14.3. Relative Weightings

14.3.1. The MCDA process weights the different criteria being assessed and some respondents commented on the weighting set used:

- The next iteration of the MCDA model should seek stakeholder and independent input.
- Safety should be weighted highest; environment and security also need high weighting. Cost must not be given undue weight and must not outweigh safety.
- Socio-economics are treated in a limited way in the MCDA. This does not capture the full impact on communities [see also comments below on OCF].
- Generally, socio-economics should be given a higher weighting and more



sophisticated measures of socio-economic impact should be used – eg the ‘value’ of a job depends on what it is and where it is.

- Other factors that should be weighted more highly include transport of ILW between dismantling and storage sites and the political context – particularly future Scottish ILW policy (also see comments about OCF in Section 12).
- The solution adopted should be the one that generates the least waste without foreclosing future disposal options.
- The presentation of the results of sensitivity testing is difficult to follow. The next iteration should make clear the main drivers and impact of changes to scores and weightings.
- The impact of alternative weighting sets (and perhaps scores) corresponding to the perceptions of different stakeholder perspectives should be explored, preferably with their direct input.

## 14.4. Other Contributory Factors Methodology

14.4.1. A detailed OCF analysis had not been carried out at the time of the consultation, because it will be based on an analysis of the consultation responses. Nevertheless, there were some remarks, generally welcoming the idea of a structured approach but also commenting on what should be done.

- The Consultation Document could have been used to more effectively encourage stakeholders to review and comment on MOD’s initial thinking on OCFs and to what extent the different factors discriminate between the options.
- The OCF analysis should include an assessment of indirect socio-economic impacts. These should include both positive effects, such as spin off and negotiated benefits packages, and potential negative impacts caused by pervading perceptions of nuclear work (see Section 11).

## 14.5. Investment Appraisal

14.5.1. The investment appraisal is the project’s projection of the costs of each of the options

throughout the life of the project. Relatively few comments were received on the detail of the investment appraisal although, as described earlier, a number of comments were received about using cost as a deciding factor.

- 14.5.2. The relative costs of the options, rather than actual values, were published because to do so would risk compromising the MOD’s future commercial negotiations. A few respondents would nevertheless have preferred to see a more open disclosure of overall and contributory costs.
- 14.5.3. Some respondents pointed to a history of large cost overruns on MOD projects; there was therefore some scepticism about the accuracy of SDP cost-estimates, and respondents pointed out areas where there may be particular uncertainty.

## 14.6. Risk and uncertainty

14.6.1. Respondents pointed to risks to which the MOD should be alert or areas of particular uncertainty that could have significant impacts on the project:

- The GDF facility may well not be available as expected if at all, so there is a strong link to ‘other radwaste projects’, it should be more highly weighted and contingency plans should be made.
- The amount of ILW is modest but uncertainty about the amount needs to be resolved to inform the cost model.
- Other factors which need resolving to inform the analysis include the extent of any contamination outside the RPV/RC.

## 14.7. Future decisions

14.7.1. Comments relevant to project programme and risk analysis have generally been covered in this report with the SDP to which they relate most closely.

14.7.2. Some more general points were made however. Some noted for instance that SDP is a very long project so no irrevocable decisions should be taken until they need to be in order to preserve MOD’s flexibility to take advantage of opportunities and developments.

14.7.3. Others on the other hand remarked that the Vanguard Class of submarines (and onwards) will need a different analysis because of the differences in design to other classes, in particular their size.



## 15. Comments on the Next Steps

### 15.1. Overview

15.1.1. Question 9 asked “Do you have comments on the next stages of the decision-making process that will follow this consultation?” Some comments and suggestions on the next steps were also included in the context of other questions such as those relating to the decision-making process (Q5) or the consultation process itself (Q10). The responses received related either to the aims of the project, the approach to analysis or to the process of consultation and engagement and were tagged accordingly; these comments have therefore been accounted for in the overview section of the respective summary.

### 15.2. Specific Comments

15.2.1. Several people either said that they did not have any comments on the next steps or simply stated that they were satisfied with the next steps as outlined in the Consultation Document.

15.2.2. Nearly as many, however, felt that the next steps were too slow and that the process of making a decision and beginning dismantling should be accelerated. Among these respondents, most were concerned that further consultation would draw the process out, increasing the amount of risk and driving up costs. A couple believed that delays were likely and that the publication of planning dates for future milestones would increase accountability and help drive the project to meet those dates. One respondent appealed for the process to be sped up because of concerns about the submarines continuing to be stored afloat.

15.2.3. A number of respondents felt the most important of the next steps were the ongoing discussion between the MOD and the NDA regarding interim storage of ILW but thoughts on this subject were very split. A couple argued that MOD sites should be given preference as they felt this would be the most pragmatic route, with NDA sites considered a ‘fall-back’ option. Others felt that using MOD rather than NDA sites would be a politically driven decision, not one based on scientific or reasoned argument.

15.2.4. The importance of further consultation before dismantling begins was noted and a few respondents specified requirements for the further assessments that will inform the site selection process for storage of ILW. This included:

- Publication of the joint assessment between MOD and NDA and of further developed assessment of the cases for the respective types of site.
- Differentiating NDA sites that already store waste originating elsewhere from those that do not.
- Consideration of transport implications, specific environmental features associated with the different sites and the views of relevant stakeholders.

15.2.5. Some people did not feel the community had sufficient influence over the decisions to be made or felt that the decisions had already been made. Two felt the decisions should instead be taken by a referendum in which local people are invited to vote and three called for a public inquiry. Another respondent thought a public inquiry may be required in due course for the ‘disposal’ site.

15.2.6. There was general consensus on the need for continued engagement, openness and transparency with the public throughout the project. Clarity and frequency of communications were of great importance and developments should be widely publicised to ensure general understanding throughout local communities. Three responses also stressed the importance of taking into account the views expressed in the previous consultations.

15.2.7. Some respondents thought the priority should now be for further analysis focusing on a few specific areas including:

- A more developed assessment of the differentiation between initial dismantling sites, with explicit consideration of local authorities’ views.
- Clarification of project criteria that are open to misinterpretation.



- Sensitivity testing of the conclusions of the options analysis, taking account of a wider range of stakeholder perspectives.
- Further work to demonstrate the options analysis has been suitably robust.

These respondents generally agreed that it was important that MOD clearly identify the timescales for further assessments and opportunities for further stakeholder input as soon as possible.

15.2.8. Other points raised in response to this question included:

- The impact of any potential future changes to the political structure in Scotland such as Scottish independence or greater devolution to the future direction of the SDP.
- That the only responsible next step is to stop the nuclear submarine programme, at least until a solution to dealing with the waste is proven.
- Comments on how the contracting processes might be developed once the decisions are taken and a suggestion to ask two consortia to dismantle a submarine on each site.



## 16. Comments on the Conduct of the Consultation

### 16.1. Overview

- 16.1.1. Question 10 invited feedback on how the consultation itself was conducted and whether the information provided was adequate. It also sought views on the extent to which the consultation met the criteria of the Government Code of Practice on Consultation (which were listed in the document). Most respondents answered this question, although a few said that they had 'no comments'.
- 16.1.2. Just under 500 comments were made on the consultation. The vast majority offered either general views about the MOD's approach to the consultation or comments on consultation events they had attended, the majority of which were positive. Doubt over the scope to influence the decisions was however a common theme, closely followed by a range of points made about the information provided.

### 16.2. Specific comments

- 16.2.1. Many welcomed the opportunity to comment on submarine dismantling, some of whom observed that the approach adopted is more transparent than is routine for the MOD. A few however thought the subject too technical for the public and argued that the experts should make the decisions on the basis of industrial experience and scientific evidence.
- 16.2.2. The majority of respondents supported the way in which the consultation was conducted. Many commended the team staffing the consultation; the workshops in particular were noted as useful with the information clearly presented and the effort made to answer people's questions. Some attendees felt however, that the discussion got into too much technical detail at times for the wider audience.
- 16.2.3. A number of respondents commended the written information for providing a clear explanation of the issues. Several disagreed however, feeling that the information was too technical for a layperson to understand and there was too much of it. The consultation questions, in particular, were criticised for being over complicated.
- 16.2.4. Some were concerned that there was a lack of awareness about the consultation among residents, particularly in Plymouth. Media news coverage was thought to be 'low key' and some suggested that direct mailings should have gone to every resident in the city and the surrounding areas.
- 16.2.5. For those who did not have confidence in the consultation, the reason most frequently cited was a belief that decisions have already been made, before consultation was conducted. Some did not feel that the process used to arrive at the 'short list' of options presented for consultation was transparent enough.
- 16.2.6. A few respondents stated that they would reserve judgement on whether the consultation adhered to criteria 6 of the Government Code of Practice ('Responsiveness of consultation exercises') until the MOD presents its response. Some noted that neither would it be possible to comment on the 'Clarity of scope and impact' (criteria 3) until the ILW storage site is identified and associated consultation conducted. A couple also felt that, without specific cost estimates it was not possible to properly scrutinise the results of the MOD's options analysis.
- 16.2.7. Many responses, particularly those from organised groups or official bodies, stressed the need for ongoing engagement with the public and for continued transparency throughout and beyond the decision making process. A number of helpful suggestions were made about future communications and engagement opportunities. Key information that should be shared as it becomes available was identified such as:
- Results of NDA and MOD discussions regarding intermediate level radioactive waste storage sites.
  - Detail about transport arrangements once sites are chosen.
  - Site for ship-breaking of the hull of the submarine.
  - Information learned from dismantling the first submarine and any variance to prior estimates.



- Plans for dismantling future classes of submarines.

16.2.8. A significant majority supported the commitment to further stakeholder engagement and consultation on the selection of an ILW storage site. There were some exceptions however, from people who felt that the MOD has delayed the decision for long enough.

16.2.9. As discussed further in the following Section 17, a number of NGOs argued that there is an intrinsic association between the defuelling of submarines and dismantling them and that, while not within the scope of the SDP, views about the process of defuelling should have been sought as part of the consultation. Some also argued that the policy of keeping SSBNs (submarines that carry the UK strategic nuclear deterrent) should have been included

## 17. Comments on Out of Scope Issues

### 17.1. Overview

17.1.1. A significant number of responses included comments which were technically outside the scope of the project but were nevertheless relevant to the MOD's submarine operations generally and thus to a wider understanding of perceptions of SDP and the positions from which they approached the consultation.

17.1.2. Of these circa 80 comments, most were about nuclear submarines in general – the need or otherwise for them – but the subject of spent fuel attracted nearly as many comments. Current operations of the Royal Navy's submarine fleet also drew a number of comments.

### 17.2. Comments relating to nuclear submarine operations

17.2.1. A significant number of respondents recognised that it was necessary to deal with legacy submarines, but argued that the MOD should not have built them in the first place and should not be continuing a submarine programme that is creating yet more wastes.

17.2.2. Several made the points that insufficient consideration was given to legacy and ethical issues when the submarines were ordered, and dismantling issues should have been tackled when the first nuclear submarine was laid-up.

17.2.3. Arguments for the MOD abandoning the commissioning and use of nuclear submarines included:

- Nuclear submarines are unaffordable and unnecessary.
- Their operation generally is dangerous, and operations in Devonport expose the Plymouth area to risks from accidents and discharges.
- The country has no proven method for dealing with the wastes arising – SDP only stores them.

17.2.4. One pointed out that the Committee on Radioactive Waste Management recognised the need to consider a “range of issues including the social, political and ethical issues of a deliberate decision to create new nuclear wastes”.

17.2.5. Not all submissions that commented on the use of nuclear submarines were opposed to them. A few said they had fulfilled a valuable role.

17.2.6. A few respondents took the opportunity also to express strong objections to nuclear weapons. A suggestion was made that removing existing weapons would free up facilities that could be used for dismantling. One or two pointed out that maintaining a nuclear deterrent did not necessarily require nuclear-powered submarines.

### 17.3. Comments about Defuelling

17.3.1. There is a perception that the MOD's project boundaries are artificial, in that they exclude activities which are an integral part of the decommissioning process, and much more hazardous than the dismantling work. It may have been the original intent to defuel the submarines before they were laid up but this has not happened. SDP's scope and the SEA Report should therefore be amended to include the following:

- The continued storage afloat of six fully fuelled submarines stored at Devonport.
- Eventual defuelling of these boats and the defuelling of future SDP submarines.
- Interim storage and transfer of spent fuel to Sellafield.

17.3.2. There has been no public consultation in any forum on spent fuel management, or on plans to upgrade the Devonport Dockyard to undertake defueling operations. Although submarine defuelling operations have been undertaken at Devonport in the recent past, the MOD still has a duty to engage in discussion with local communities. The Dismantling Consultation should therefore have covered these topics - discussion during SDP local and national events showed it was a significant issue for Devonport in particular.

17.3.3. A few put the fact that the consultation did not cover defuelling down to a deliberate attempt to avoid potential controversy; one or two seemed to see it more as reflecting a lack of joined-up thinking and thus a reduced ability on the part of the MOD to optimise the whole process.

17.3.4. Some made the point that it reduces confidence in the MOD recommendations when there is no reference to defueling or that confidence in SDP is being damaged by a lack of transparency on defuelling matters. A few introduced other factors that affect trust, including perceived reductions in MOD capability and the impact of otherwise unrelated issues concerning the management of radioactive material, notably the contamination at Dalgety Bay (which is quite close to Rosyth).

17.3.5. Some expressed concern about the risks from laid up fuelled submarines and the regulatory regimes that cover them; the implication is that they should be defuelled as soon as possible. However, more of those commenting on this issue argued that defuelling is a hazardous activity that should not be carried out near centres of population, which exposes more people to risk and makes effective emergency response harder. An alternative remote location should be sought – cost, security and nuclear site licence constraints could be overcome.

17.3.6. Some respondents were concerned that spent fuel was being stored at Devonport. Respondents from the Sellafield area, where MOD spent fuel is sent, meanwhile suggest that present agreements should be reviewed to ensure maximum benefits for the local community are realised from MOD fuel transfers.

### 17.4. How MOD will take account of these comments

17.4.1. If there are potential interactions between other work and SDP, they will be properly taken into account in detailed design work and safety justifications for approval from the regulators. Interactions with other projects (external and MOD) are also included within the MCDA analysis. The SEA also already includes assessment of cumulative impact, including other MOD nuclear operations.

17.4.2. Many of these points relate to matters of pre-existing government policy, however, over which the SDP has no influence. A number of comments also relate to projects which the SDP itself does not have the remit to address - such as defuelling. These and a number of other significant points have been made under this heading that the wider MOD will need to reflect on. The project team will therefore draw these comments to the attention of the appropriate teams in the MOD.

## 18. Submissions from organisations

### 18.1. Introduction

18.1.1. Responses were received from 37 organisations. Most of these responses addressed the Consultation Document as a whole but some of the 'statutory bodies' (identified in the table below) whom legislation requires to be consulted on the SEA, focused on the Environmental Report. A very brief summary of the responses, grouped by the type of organisation which they represent, is provided in the pages that follow.

Organisation Name	Organisation Type
CANSAR	CBO, candidate dismantling site
Plymouth Civic Society	CBO, candidate dismantling site
Transitions Plymouth	CBO, candidate dismantling site
Solent Coalition Against Nuclear Ships	CBO
Civil Engineering Contractors Association	Commercial business
Energy Solutions	Commercial business
Scottish Water	Commercial business
Studsvik	Commercial business
Westlakes Nuclear	Commercial business
Department for Environment, Food and Rural Affairs	Government (statutory body)
Environment Agency	Government (statutory body)
Scottish Environment Protection Agency	Government (statutory body)
Northern Ireland Environment Agency	Government (statutory body)
Natural England	Government (statutory body)
Scottish Natural Heritage	Government (statutory body)
Historic Scotland	Government (statutory body)
Health Protection Agency	Government
Nuclear Free Local Authorities	Local government organisation
Nuclear Legacy Advisory Forum	Local government organisation
Scottish Councils Committee on Radioactive Substances	Local government organisation
West Kilbride County Council	Local Authority, covering NDA site
Cumbria County Council	Local Authority, covering NDA site
Copeland Borough Council	Local Authority, covering NDA site
Highland Council	Local Authority, covering NDA site
South Gloucester Council	Local Authority, covering NDA site
Cornwall Council	Local Authority, candidate dismantling site
Fife Council	Local Authority, candidate dismantling site
Plymouth City Council	Local Authority, candidate dismantling site
Edinburgh City Council	Local Authority
NHS Fife	Official body, candidate dismantling site
NHS Plymouth	Official body, candidate dismantling site
Aldermaston Women's Peace Camp	NGO, covering MOD site
Exeter CND	NGO
Nuclear Information Service	NGO
Nuclear Submarine Forum	NGO
Nuclear Institute	Professional Institution

18.1.2. These responses included many substantial submissions which engaged in detail with the range of supporting materials provided as well as the higher level information. Alternative positions were well argued and a lot of helpful advice was offered for the next stages of the project. The responses represent a great deal of time and effort on the part of those concerned, for which the project would like to extend its sincere thanks

## 18.2. Local Authorities covering candidate dismantling sites

18.2.1. Submissions were received from four local authorities covering potential dismantling sites. Points made included:

- Plymouth area councils are broadly supportive of the MOD's analysis and conclusions on dismantling options. Rosyth area councils support the RC option as being lowest risk or believe the case for RPV is not yet proved.
- Plymouth area councils are conditionally supportive of a dual site solution, as is Fife Council. Edinburgh City Council argues for Devonport only.
- Extensive consultation on ILW options will be vital, but none of the councils support local ILW storage.
- For councils, the overall socio-economic impact is a major consideration. Analysis to date has been too restricted and significance not weighted high enough.
- Councils and NHS Plymouth argue that public perceptions within the potential host areas, and external perceptions of them, need to be taken more seriously and factored in. Continued communication and public engagement will be essential to maintaining public confidence.
- The Fife public opinion survey shows a polarisation of view, being either very much in favour of the work going ahead at Rosyth, or being totally opposed to any work there and demanding that the submarines be removed.

## 18.3. Official bodies covering candidate dismantling sites

18.3.1. Submissions were received from two official bodies covering potential dismantling sites. NHS Fife and Plymouth are broadly supportive of analysis and conclusions on dismantling options and sites (but see comments above). NHS Fife argues for ILW storage distant from Rosyth.

## 18.4. Local Authorities covering NDA sites

18.4.1. Submissions were received from five local authorities covering NDA sites. Points made included:

- Generally support the MOD's analysis on dismantling approach and location.
- Most concerns relate to the possibility of taking MOD waste onto NDA sites. Some think a distinction can be made between sites that already take waste from offsite and those that do not.
- Public confidence will be of even greater importance at the ILW consultation stage. It is essential that the MOD now clearly explains what further assessments are being undertaken, the timescales, and what opportunities there will be for stakeholder engagement and comment on ILW storage locations.
- All potential waste sites need to be considered on an equal footing, both MOD/Commercial and NDA, to choose the 'best' option - not first deciding NDA or MOD/Commercial.
- Waste storage decisions should take into account assessment of broad socio economic impact and should have more direct stakeholder involvement in the analysis.
- Communities storing ILW would expect a significant offset or compensation package.
- Transport is a much under rated criteria which needs to be given full consideration.
- There should be explicit consideration of the future Scottish political context.
- Further consideration should also be given to the possibility of the proposed GDF facility not becoming available; what would happen to the waste if this position arises.



## 18.5. Community Based Organisations and Non Governmental Organisations

18.5.1. Submissions were received from four community-based organisations. Points made included:

- The positions of the CBOs vary but all believe dismantling and storage should occur away from population centres.
- Some questioned the candidate sites put forward for the dismantling of submarines and suggested that other, more suitable locations are available.
- It was stressed that, because storage sites have not been identified at this time, there is a lack of clarity around this integral aspect with too much resting on talks with the NDA.
- Three of the CBOs prefer the RC option on the grounds of risk if dismantling has to take place, but storage intact should be investigated. One of these three notes that RPV removal and storage may have benefits but these are not yet proven.
- Two CBOs stress their opposition to nuclear submarines and weapons.

18.5.2. Two NGOs that campaign primarily on nuclear weapons issues contributed submissions. Points made included:

- Operation and procurement of nuclear submarines should stop. Defuelling should not take place in a city centre location.
- Dual site dismantling and RC storage as the 'least worst' way to minimise transport and risk. RPV storage minimises risk when industrial hazards are taken into account and allows for storage at a remote site.
- An alternative proposal is for remote storage of intact submarines.
- Any new radiological hazard should be offset by significant reduction of existing hazard.

18.5.3. Two NGOs that campaign primarily on environmental issues contributed submissions. Points made included:

- Confidence depends on the nuclear powered submarine programme being phased out.
- Defuelling is the main risk and should have been included.
- More information is required to confirm the dismantling option, including on accident scenarios.
- Remote storage of intact submarines should have been considered. However of the options presented, cutting up means greater risk but is fairer and minimises risk of funding being unavailable; the packaged waste option has the merit of dealing with the problem in the present.
- Dual site dismantling seems sensible but communities where submarine dismantling will take place must agree to accept the work on a fully informed basis, with social benefits and significant compensation.
- It is the MOD's responsibility to manage its own waste. On the grounds of fairness, waste should not be stored at the dismantling sites. Comprehensive engagement in the decision making process will be essential to future ILW storage. CoRWM is suggested as a model.
- Detailed criticisms are made about the optioneering methodology and the degree to which stakeholders were involved. The next iteration of the MCDA model should include stakeholder and independent input.

## 18.6. Professional Institutions

18.6.1. A submission was received from one professional institution. Points made included:

- The MOD should proceed without further delay. Submarine dismantling is not considered to be particularly challenging; it can be done safely and securely. It raises the need to add programmatic elements to the analysis of options,
- The preferred option would be to package the waste, as being best practice and minimising the burden on future generations. The Institute supports dismantling at both sites. New sub-options are proposed for consideration.



- The amount of ILW is modest but uncertainty about amount needs resolving. The Institute is concerned that selection of an ILW storage location is not more advanced. Any non-MOD store would need extensive engagement with stakeholders; agreement has not been reached on regional NDA stores.
- Wide stakeholder engagement will need to be maintained between the end of the consultation and the decision.
- The Institute recommends that the MOD publishes an integrated approach to future defuelling, long-term lay-up and subsequent dismantling of submarines.

## 18.7. Local government organisations

18.7.1. Submissions were received from two local government organisations. Points made included:

- The organisations are broadly supportive of approach and option proposals.
- Detailed technical comments and suggestions are made about the conduct of the MCDA and OCF analyses, particularly sensitivity testing. Different stakeholder perspectives need taking into account.
- Treatment of dose is inadequate. Dose must be ALARP as well as within statutory limits.
- The options for siting are reasonable although there is still a need for engagement with NDA as they do not yet have a clear strategy.
- Potential ILW storage sites can only be assessed properly once specific potential locations are identified. Public confidence will be an important discriminator. Advice on future engagement requirements is provided.
- Socio-economic impact should be a high priority consideration. Advice on socioeconomic benefit approaches is provided.
- The impact of other radioactive waste initiatives could be high e.g. uncertainty over the GDF programme.

## 18.8. Government and related bodies

18.8.1. Submissions were received from seven national government and government-related bodies. Points made included:

- Agreement with the general conclusions of the report and support for the MOD's intention to determine an early solution to submarine dismantling.
- The solution adopted should be the one that generates the least waste without foreclosing future disposal options.
- A higher priority and more information is required on radiological aspects, using the ALARP principle.
- Submissions generally agree that the Environmental Report provides a sound evaluation of any likely significant environmental effects, although some of the scores were queried and it was suggested more work was required before significant effects could be ruled out.
- Submissions contained a range of detailed comments on the SEA, including on ship-breaking, waste management, dredging and the effects of a changing climate.

## 18.9. Commercial businesses

18.9.1. Submissions were received from five commercial businesses. Points made included:

- To the extent that they do comment on the assessment, commercial organisations appear supportive of SDP's general approach and conclusions; some discussed additional options.
- Where there were comments on timescales, they argued against any further delay.
- SDP should engage with a broad range of supply chain organisations and ensure there is a sound competition and contracting strategy.
- Commercial organisations also drew attention to opportunities and risks within their area of expertise.

## 19. Abbreviation List

Abbreviation	Meaning
AG	Advisory Group
ALARP	As Low as Reasonably Practical
BPEO	Best Practicable Environmental Option
CBO	Community Based Organisation
CIOP	Consultation on ISOLUS Outline Proposals
CoRWM	Committee on Radioactive Waste Management
DE&S	Defence Equipment & Support
DECC	Department for Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DNSR	Defence Nuclear Safety Regulator
EA	Environment Agency.
GDF	Geological Disposal Facility
HLW	High Level Waste
ILW	Intermediate Level Waste
ISOLUS	Interim Storage of Laid Up Submarines (former name for SDP)
LLW	Low Level Waste
MCDA	Multi Criteria Decision Making Analysis
NDA	Nuclear Decommissioning Authority
NGO	Non Governmental Organisation
OCF	Other Contributory Factors
ONR	Office of Nuclear Regulation
RC	Reactor Compartment: the central 'slice' of the submarine which contains the nuclear reactor.
RPV	Reactor Pressure Vessel: the metal chamber inside the RC which contained the nuclear fuel.
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SDC	Submarine Dismantling Consultation
SDP	Submarine Dismantling Project
VLLW	Very Low Level Waste
WLC	Whole Life Cost

## 20. Supporting Documents

### 20.1. Annexes

20.1.1. Due to the volume and file size of the supporting evidence referred to in this document, they are available as Annexes in a separate document

The Annexes are:

- A:** Publicity Materials
- B:** Questionnaire
- C:** Website visits
- D:** Coded responses
- E-M:** Workshop notes
- N:** Sticky notes

# Submarine Dismantling Project (SDP)

---

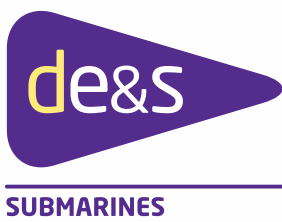
## Post Consultation Report

#3112  
MOD Abbey Wood  
Bristol  
BS34 8JH  
DESSMIS-SDP@mod.uk  
030 679 83793

All of the documents produced for this Consultation and further background information is available on our website at:

[www.mod.uk/submarinedismantling](http://www.mod.uk/submarinedismantling)

Design and photography by DE&S Corp Comms GRAPHICS & PHOTOGRAPHY  
Crown Copyright ©  
BTH003710\_SAS - Post Consultation Report



MINISTRY OF DEFENCE