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# **SUBMARINE DISMANTLING PROJECT**

## **ILW Storage Site Selection: Assessment Criteria Overview**

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Issue 3.1 – May 2015

### **Annex C to Approach to Decision Making**

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## Amendment History

Issue	Date	Details of Amendment	DCCF
1.0	April 2014	New document to support pre-engagement workshops. Annex to 'Approach to Decision Making'.	
2.0	June 2014	Updated to take include changes made as a result of Pre-engagement feedback and further methodology development. Annex to 'Approach to Decision Making'.	
3.0	September 2014	Updated with OE (MCDA) criteria weights	
3.1	May 2015	Minor format and Table of Contents corrections	

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## Table of Contents

<b>1.</b>	<b>Introduction</b> .....	<b>1</b>
1.1.	Scope	1
1.2.	This Issue	1
<b>2.</b>	<b>Option Assessment Process</b> .....	<b>2</b>
2.1.	Overview	2
2.2.	Approach	2
2.3.	Main Activities	2
<b>3.</b>	<b>Operational Effectiveness Analysis</b> .....	<b>3</b>
3.1.	Overview	3
3.2.	MCDA Approach	1
3.3.	Scales	2
3.4.	Sensitivity Analysis	2
<b>4.</b>	<b>Investment Appraisal</b> .....	<b>3</b>
4.1.	Introduction	3
4.2.	SDP Approach	3
4.3.	Whole Life Cost Model	4
<b>5.</b>	<b>Other Contributory Factors Analysis</b> .....	<b>6</b>
5.1.	Scope	6
5.2.	Initial and Final Analyses	6
5.3.	Developing the Model	6
5.4.	OCF Workshops	9
<b>6.</b>	<b>Integration</b> .....	<b>9</b>
	MCDA Criteria Weights	13

### **Annex A: Abbreviations**

### **Annex B: References**

### **Annex C: MCDA Criteria Weights**

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## **1. Introduction**

### **1.1. Scope**

- 1.1.1. This document contains an overview of the key option assessment activities and the current status of the Submarine Dismantling Project (SDP) Intermediate Level Waste (ILW) Storage Site option assessment criteria frameworks and investment appraisal model, as requested by stakeholders at the Bristol Pre-engagement Workshop on 25<sup>th</sup> March 2014.
- 1.1.2. It has been updated with changes to the models made as a result of feedback received during Pre-engagement, notably to the Operational Effectiveness and Other Contributory Factors criteria maps.
- 1.1.3. It has the status of an annex to the SDP 'Approach to Decision Making' (ADM) report which was been released for public comment as part of Pre-engagement and has also been updated. It is not intended as a stand-alone document: readers should refer to the main ADM report for a description of the SDP context and the proposed site selection process as a whole.
- 1.1.4. This document is based on extracts from internal MOD assessment documents and as such deals with detailed technical matters and makes extensive use of MOD terminology and acronyms. These documents were not written for a public audience and, due to the limited time available prior to the second Pre-engagement workshop, this overview has been published 'as is'. Future consultation documents will, however, present this material in a less technical way. The abbreviations used are listed in Annex A and any public domain MOD reports referenced are listed in Annex B.

### **1.2. This Issue**

- 1.2.1. Issue 2.0 included changes to the models made as a result of feedback received during Pre-engagement, notably to the Operational Effectiveness and Other Contributory Factors criteria maps.
- 1.2.2. Issue 3.0 now includes additional information on the Operational Effectiveness analysis conducted since screening - including weighting data - plus a small number of editorial changes.
- 1.2.3. The text on which the body of the report is based was written before screening started and therefore remains in the future tense.

## 2. Option Assessment Process

### 2.1. Overview

2.1.1. Assessment of the ILW Storage Site (ISS) options is being conducted in line with MOD guidance and is based on three separate analyses:

- Operational Effectiveness (OE) analysis evaluates how well options meet the defined User requirements.
- Whole Life Cost (WLC) analysis uses Investment Appraisal (IA) to evaluate project and programme level risk adjusted option costs.
- Other Contributory Factors (OCF) analysis evaluates the potential impact of non-quantifiable factors and potentially quantifiable factors which lie outside the remit of SDP or the MOD.

2.1.2. The Strategic Environmental Assessment (SEA) is a source of data for other strands of the analysis (particularly the OE analysis). The SEA complements option assessment reports and provides communities with detailed information on the potential environmental impacts of options, including impacts on health & well-being. A document setting out the proposed SEA scope has been consulted on. The SEA will be finished before the main Public Consultation.

2.1.3. Later sections in this document give more information on the current assessment criteria frameworks and models which will be used in these analyses.

### 2.2. Approach

2.2.1. Preparations for the ISS option assessment phase have already started but most of the work will take place after Pre-engagement is complete and the shortlist finalised.

2.2.2. Assessment will initially focus on establishing the advantages and disadvantages of the candidate sites and the potential impacts on the local communities and other stakeholders. After comments from the main Public Consultation have been considered, the analyses will be revisited and reviewed, the wider decision logic will be completed and a recommended option identified. The Business Case Review Note (BCRN) and its supporting papers will be prepared and submitted for MOD approval.

### 2.3. Main Activities

2.3.1. The option assessment phase comprises the following main activities.

- During Initial Assessment, the shortlisted sites will be compared, primarily on the basis of whole life cost and operational effectiveness. Further assessment of a site may be halted at any point if it can be shown to fail an 'unacceptable performance' threshold test i.e. a site fails to meet a specified requirement threshold.
- SEA studies on the shortlisted sites will be completed and the SEA Environmental Report issued.
- Public consultation follows, including dissemination of a Public Consultation Document, plus events for communities associated with shortlisted sites, national stakeholders, and the wider public. Information will be gathered for the OCF analysis which complements the whole life cost and operational effectiveness analyses.

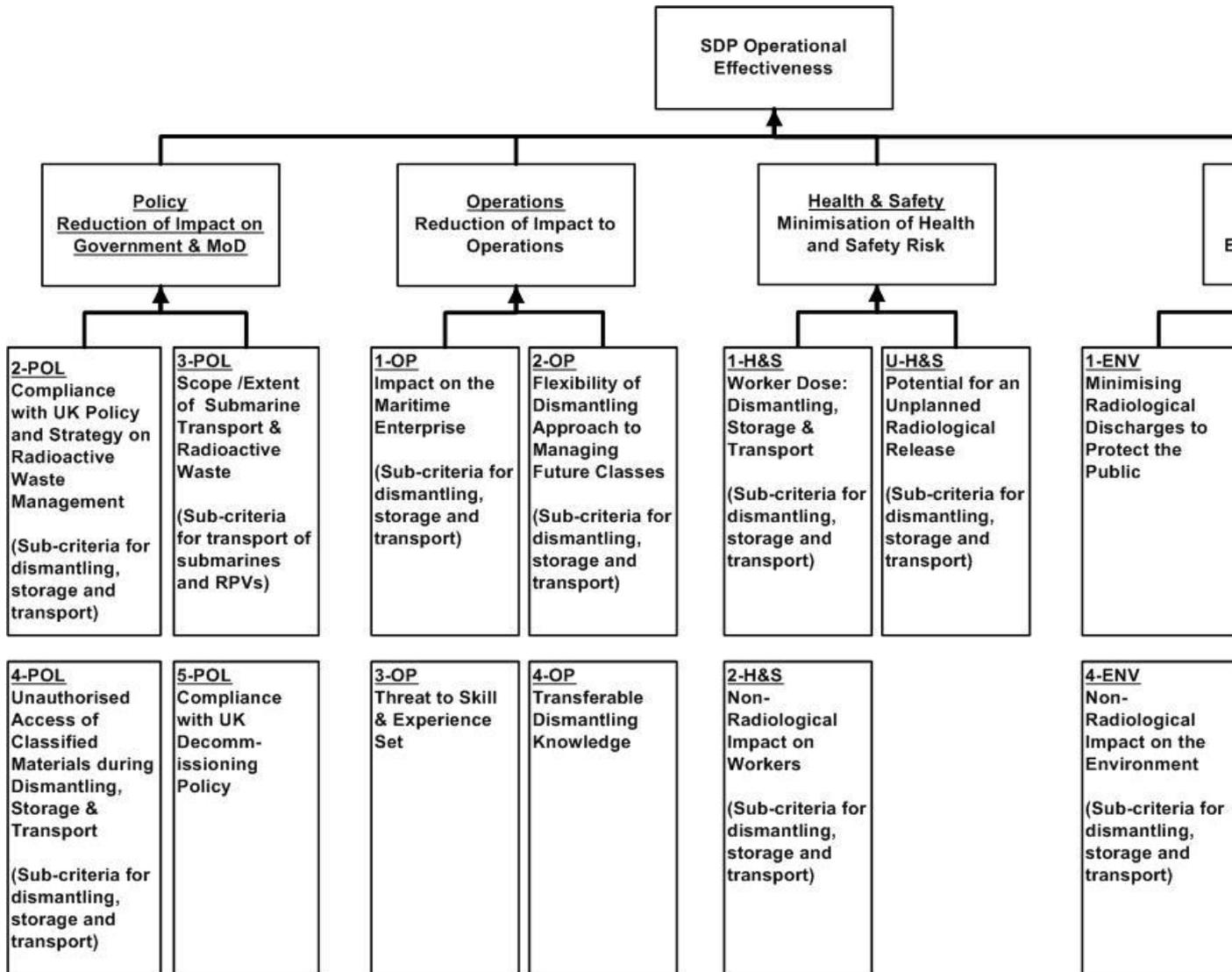
The Public Consultation Document will describe the analysis framework, the available information on the different sites and their potential pros and cons. It will not include a proposed option, because this will depend to a significant degree on OCF information collected during the consultation and stakeholder views.

- After the public consultation, responses will be considered, the analyses (OE, IA and OCF) will be reviewed, revisited and completed and the underlying data and assumptions captured in supporting reports. The SDP will publish a summary of the public consultation comments received while retaining the comments received in full, for any interested parties to review.
- The BCRN and supporting documents will be produced, bringing together all the information and arguments from the analyses, to support a recommendation on the most appropriate storage site. After Ministerial approval, feedback will be given to stakeholders and the wider public.

### **3. Operational Effectiveness Analysis**

#### **3.1. Overview**

- 3.1.1. The SDP is developing a solution for the dismantling, recycling and disposal of existing assets rather than developing a new military capability. It is therefore meaningless to conduct the OE analysis by testing potential solutions against operational scenarios.
- 3.1.2. Rather, the OE analysis must assess 'how well' different potential sites and storage configurations will deliver the user requirements and thus balance the impacts on operations, policy, health and safety and the environment. The OE analysis for the 2012 MOD Main Gate Business Case (MGBC) that determined the dismantling sites and approach used a multi criteria decision analysis (MCDA) framework to capture these requirements. This assessment included an analysis of generic MOD, Commercial and NDA sites.
- 3.1.3. The SDP user requirements are still valid so the OE will therefore use the same MCDA assessment framework to assess specific storage sites as. Specific considerations include:
- The ISS selection decision cannot be made in isolation from the process which underpinned selection of dismantling sites and technical approach, as they represent different elements of an integrated approach.
  - The MGBC MCDA criteria have been reviewed, and those required for the ISS decision have been shown to be a subset of them.



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Fig. 1 overleaf shows the MGBC criteria framework that will be used. In order to enable a detailed comparison of the different storage sites the lowest level criteria of the original 2012 MCDA model have been broken down into specific dismantling, RPV transportation and RPV storage contribution criteria, where appropriate.

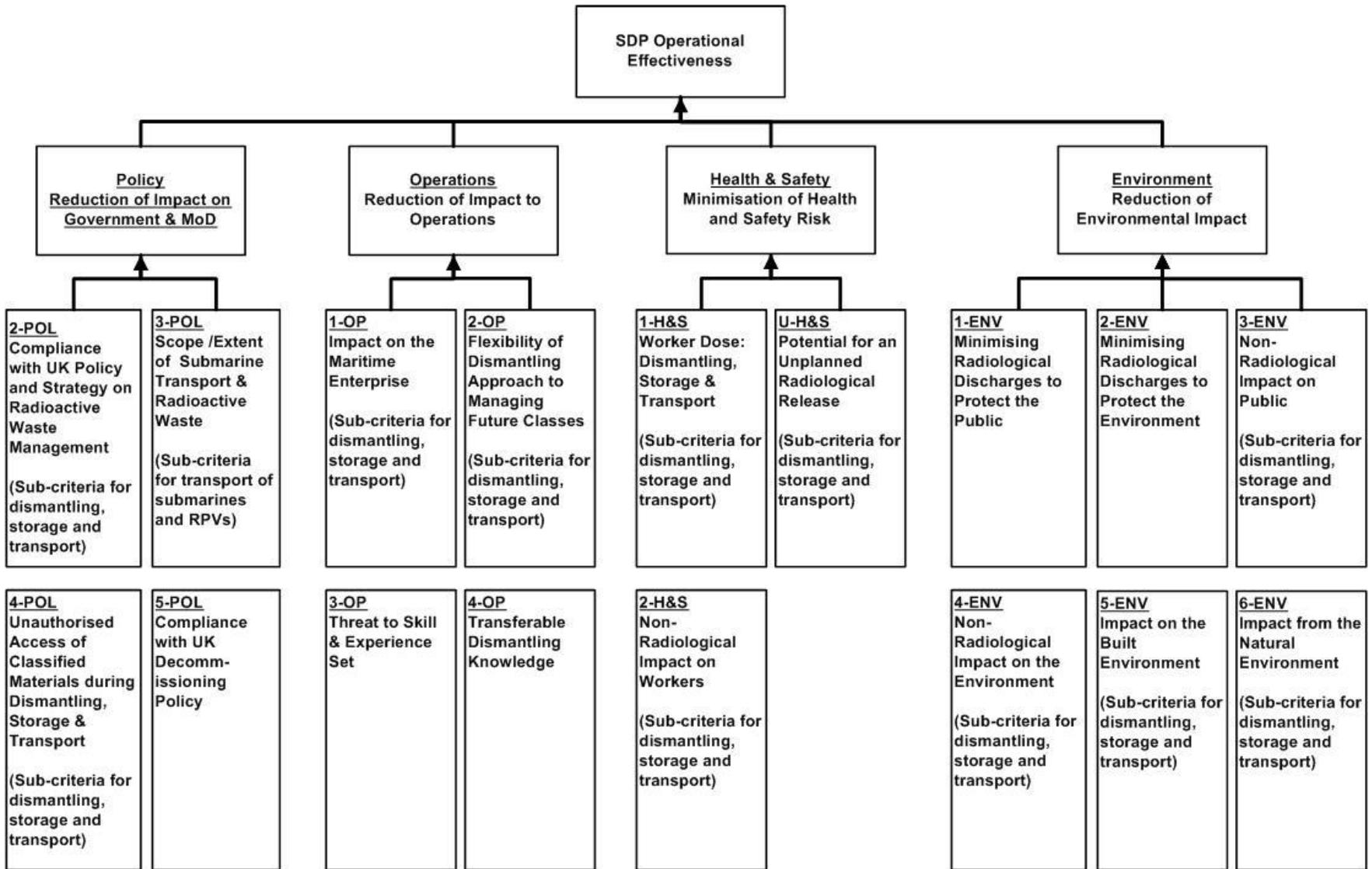
3.1.4. The number of criteria broken down in this way was increased as a result of feedback from stakeholders during Pre-engagement.

### 3.2. MCDA Approach

3.2.1. An initial workshop will be held to review and confirm the criteria definitions and weights. This will be facilitated, with a similar format and attendance list to the MGBC equivalent.

3.2.2. Criteria will be presented, discussed and the definitions agreed. The existing weights within the MCDA model will be reviewed to ensure they are still valid. Changes risk invalidating previous results at MGBC so any proposals would need to be carefully assessed.

- 3.2.3. Additional weights will be elicited where necessary to reflect the relative contribution of new sub-criteria to the overall OE score. A Delphi approach will be employed, whereby individuals will be asked for their weights, invited to discuss the results, and then given the opportunity to re-weight. Discussions and reasoning will be recorded in the notes. Consensus is not required as the MCDA approach carries forward the weight distributions for statistical analysis.
- 3.2.4. The second OE workshop will focus on scoring the options against the criteria. After confirming the scales for each criterion, scores will be elicited for the lowest level criteria using a similar Delphi approach. As before, consensus is not required as the MCDA approach carries forward the weight distributions for statistical analysis.
- 3.2.5. A further workshop will be scheduled after public consultation to review feedback and potentially revise or update the OE analysis via the MCDA, in light of additional information gained from the public or the sites. The details are yet to be decided and it may in practice be combined with the Main OCF workshop.
- 3.2.6. The MCDA criteria weights derived from the first workshop can be found in Annex C.



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Figure 1 - Storage Site MCDA Model

### **3.3. Scales**

- 3.3.1. Each option is scored against each of the lowest-level criteria using pre-defined 10-point scoring scales.
- 3.3.2. Typically, a higher score would represent greater compliance with the requirement. For example a score of 1 may reflect compliance with the threshold and 7 or 8 could reflect compliance with the objective. A '9' would usually represent the point beyond which better performance would have no significant additional benefit to the project. A score of zero equates to unacceptable performance below the threshold and would generally result in the elimination of an option from further consideration.
- 3.3.3. For some criteria objective numerical values or logical states are or will be known and thus the score largely follows from the scale definition (e.g. transport miles). The uncertainties are largely those in the underlying data with some variation in SME interpretation.
- 3.3.4. For other criteria the appropriate score have to be decided according to the subjective views of relevant SMEs (e.g. consistency with policy) in which case there may again be uncertainties in the data and interpretation, but also potentially significant variation in SME subjective judgement as to how this translates to a position on the scoring scale.
- 3.3.5. Uncertainty and differences in judgement will be captured and taken through to the sensitivity analysis as described below.

### **3.4. Sensitivity Analysis**

- 3.4.1. There are three main areas of uncertainty involved with using MCDA in this type of context, namely:
- Uncertainty in problem structuring and deriving the option/attribute model and performance thresholds;
  - Uncertainty about the performance of the different alternatives (and thus option scores)
  - Uncertainty in weighting e.g. due to differences in judgment or difference in the priority given to different criteria. Experience suggests that there will be variation between SME judgements for most of the scores and weights captured in workshops as previously described.
- 3.4.2. The 10, 50 and 90 percentile values will be presented in the analysis as an indication of Measure of Effectiveness uncertainty. Interpretation of the MCDA results must take account of the potential pitfalls associated with 'false precision', especially where there is a relatively large amount of subjective judgement involved in scoring.
- 3.4.3. Sensitivity analyses will be conducted. Typically, this might include assessing the impact of removing each high level group of criteria from the MCDA model and systematically varying scores and weights to explore the robustness of the conclusions being drawn.

## 4. Investment Appraisal

### 4.1. Introduction

- 4.1.1. The SDP business case must be supported by an Investment Appraisal because it exceeds both new asset and total resource consumption thresholds (£1m and £10m respectively, 50% confidence).
- 4.1.2. The approach to Investment Appraisal and the scope and the format of IA reports is largely standardised across the MOD through the application of MOD guidance. This sets out how HM Treasury rules governing appraisal and evaluation should be interpreted. IA reports typically include:
- An overview of the background to a situation that requires investment.
  - A summary of the agreed set of objectives for the investment.
  - An outline of the range of options for assessment that meet these objectives.
  - An economic assessment of each of the options.
- 4.1.3. Based on an objective assessment of the costs and associated risks of each option, the IA identifies the most economical solution, taking account of risk.
- 4.1.4. The costs and associated uncertainties from the IA are combined with the measures of performance and associated uncertainties from the OE analysis to generate the Combined Operational Effectiveness and Investment Appraisal (COEIA) plots, which evaluate the relative Value for Money (VfM) for each of the options.

### 4.2. SDP Approach

- 4.2.1. The SDP IA will vary from the usual structure as the objective is to support a business case review note rather than a full main gate business case but the differences are expected to be relatively minor.
- 4.2.2. It will compare the options on a 'should cost' basis rather than commercial bids. The 'should cost' model will be generated by the SDP team with specialist input as necessary. It will be supported by Rough order of Magnitude (ROM) estimates obtained and validated through dialogue with subject matter experts from shortlisted sites and site owners' wider organisations.
- 4.2.3. For commercially owned sites, information exchange will be negotiated to provide high level cost information. It will be made clear that this information is to support the MOD's strategic decision making and is not part of any competitive commercial process.
- 4.2.4. The IA assessment will comprise two linked assessments.
- An option comparison considering the direct costs associated with each shortlisted Storage Site, including capital costs (design, construction and commissioning) and annual costs (including operating, maintaining and inspecting the store and contents)
  - An option comparison incorporating the indirect costs of each shortlisted Storage Site, including the timing and financial impact of risks from programme delays and other causes.
- 4.2.5. The Storage Site solution with the lowest direct costs might not represent greatest Value for Money if the indirect costs at project or programme level make it less economically attractive than other Storage Site solutions.

### 4.3. Whole Life Cost Model

- 4.3.1. The IA is underpinned by a single WLC Model developed internally by the MOD with technical support from external specialists. The storage site WLC Model is being developed from the MGBC equivalent. It will take into account the specific differences between shortlisted ILW storage sites whereas the MGBC Model focussed on generic differences between different types of site.
- 4.3.2. It allows options to be compared on an outturn (i.e. expected cost at completion) and net present value (NPV) basis. It models confidence levels and the impact of risk.

Since both full-scope and incremental COEIAs will be carried out, cost information from MGBC reflecting the dual site dismantling option and the RPV dismantling approach will be required as well as data for the individual storage sites.

- 4.3.3. Figure 2 below shows how the WLC Model components fit together. The WLC Model has functionality to show:
- Costs inclusive of uncertainty boundaries but exclusive of risk.
  - Cost inclusive of uncertainty and inclusive of risk.
  - The sum total of all minimum, most likely and maximum costs.
  - The expected costs to BCRN; costs to end of the dismantling of the first submarine; and WLC.
- 4.3.4. The core calculations are on a constant cost basis. Outturn costs then have allowances for inflation added in to allow for a financial comparison; NPV costs utilise discount factors to make an economic comparison. These calculations are repeated using (constant cost with uncertainty) and then with risk profiling added in using (constant cost with uncertainty + direct & indirect costs attributed to risk).

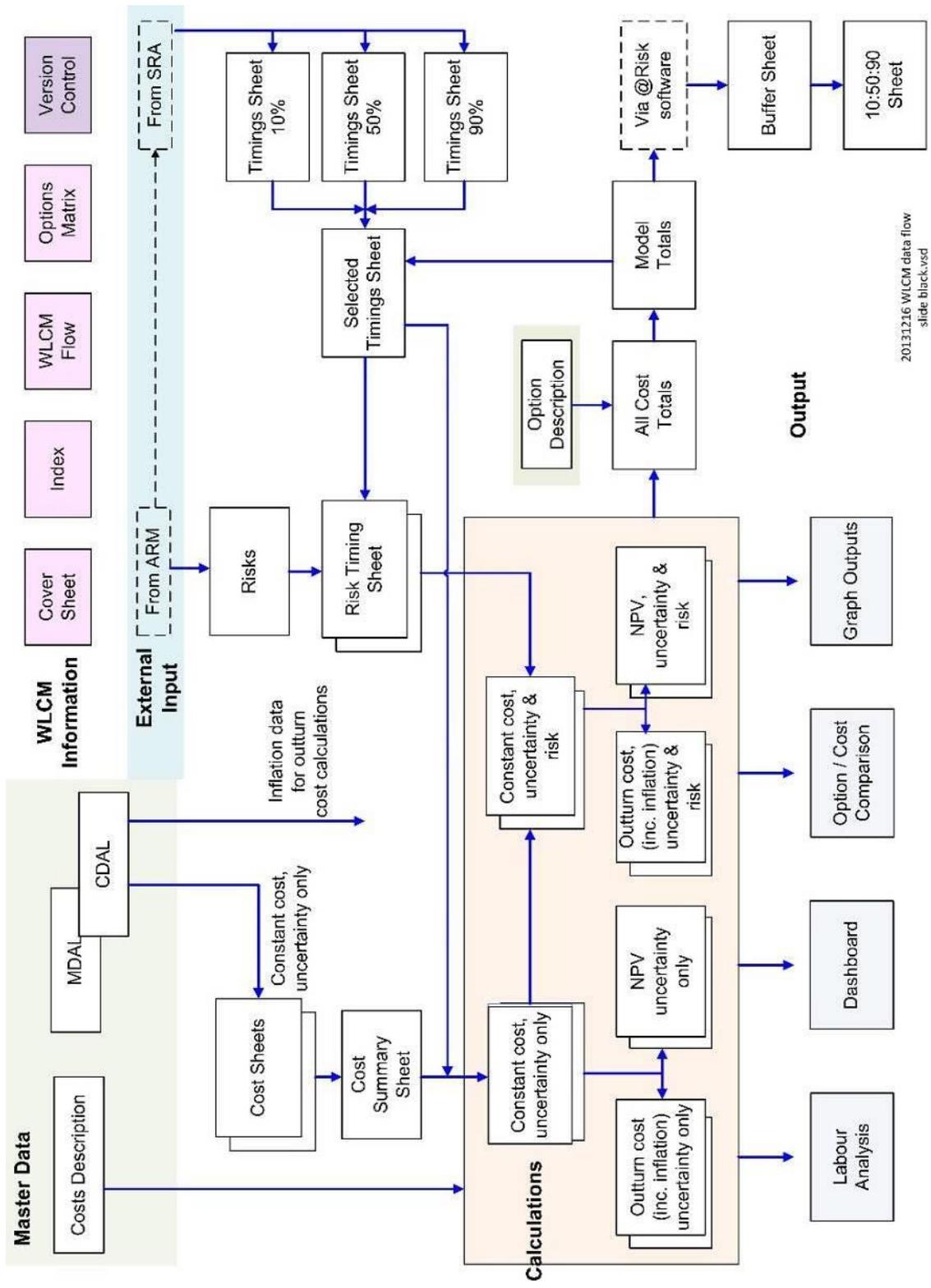


Figure 2: Whole life Cost Model

## 5. Other Contributory Factors Analysis

### 5.1. Scope

- 5.1.1. SDP's approach to OCF analysis is entirely in keeping with usual MOD practice, albeit that because of the level of external scrutiny it has to be structured and documented accordingly and take account of comments from stakeholders and the wider public.
- 5.1.2. Previous analysis has identified the potential benefits and impacts associated with the project and allocated them to the OE, IA and OCF analyses as appropriate. In practice, OCFs are factors that:
- Cannot practically be measured in terms of either effectiveness or whole life cost and are therefore not included in the OE or IA; and/or
  - Depend on insights from public consultation or the political, policy, and strategic positions of external stakeholders that are evolving or dynamic.
- 5.1.3. Some potential factors affecting the decision (such as broader socio-economic impact) are not explicit within the project's user requirements document. These are also generally addressed within the OCF analysis. Finally, the OCF analysis is different from most of the OE and IA analyses in that it also generates information that will be important to subsequent decision-making above project team level.

### 5.2. Initial and Final Analyses

- 5.2.1. The initial OCF analysis starts with Pre-engagement and ends with the start of Public Consultation. It comprises model development with some initial data collection / collation and analysis (mainly at the 'headline' OCF level). Responses to consultations on similar topics may provide insights.
- 5.2.2. The results of the initial analysis will support the preparation of the Public Consultation Document.
- 5.2.3. The main analysis starts once Public Consultation has ended and the comments and insights have been processed. It addresses individual sub-factors and continues through to BCRN submission. The main OCF Report will be prepared after the Main OCF workshop has been held and the final analysis is nearing completion.

### 5.3. Developing the Model

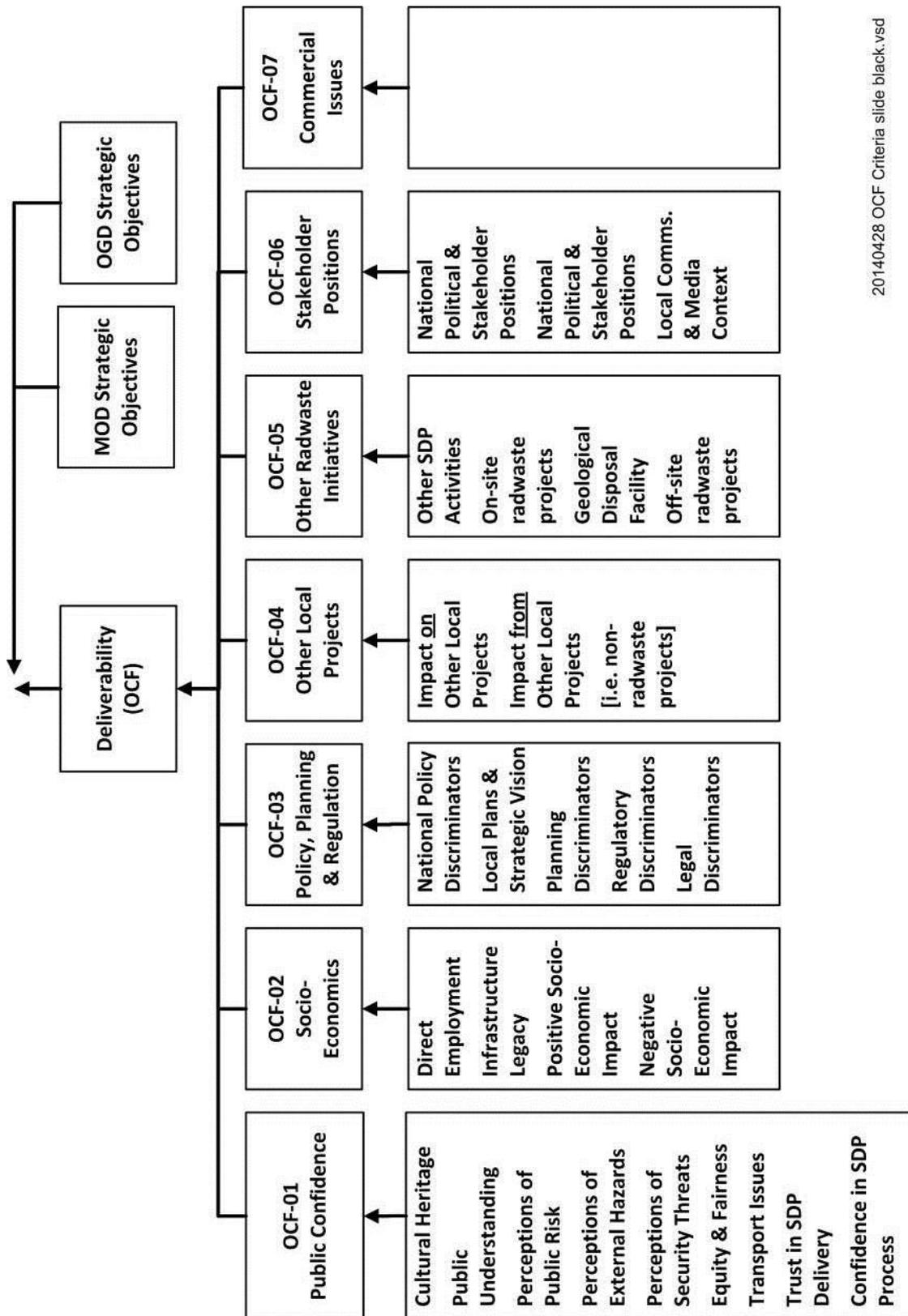
- 5.3.1. The OCF analysis must provide a framework for engaging stakeholders on deliverability issues as well as being an analytical framework and it must provide an audit trail. The methodology must therefore be systematic and key assumptions and assertions must be justified.
- 5.3.2. The MGBC assessment was well received and the OCF Model provided a satisfactory framework for both the SDP's analysis and the collation of stakeholder comments. It therefore makes sense to base the BCRN analysis initially on the MGBC criteria set and then adapt it as more information becomes available on the priority issues for the Storage Site decision and stakeholder feedback comes in during public consultation.
- 5.3.3. The model covers a broad range of factors but there are two particular areas of focus:
- Assessment of Risks to Delivery.
  - Assessment of Strategic Coherence.

- 5.3.4. The assessment of risks to delays and other threats to delivery will take into account the results of the engagement with local stakeholders to understand their perspective on ILW storage (mainly OCFs 01 to 05). The assessment of strategic coherence will take into account the results of engagement with MOD and the wider UK Government.
- 5.3.5. To check that its coverage is comprehensive, the Model presented at the start of Pre-engagement was checked against:
- Comments on Storage Site issues from the MGBC public consultation.
  - Responses to other radioactive waste storage public consultations.
  - A sample of surveys of public attitude towards radioactive waste transport and storage.
- 5.3.6. As a result of these checks and (particularly) feedback from stakeholders during Pre-engagement the criteria have been reorganised into a structure that is better optimised for comparing storage sites. Additional criteria have been added to give better coverage of some emerging likely consultation themes, including transport, planning, and commercial issues<sup>1</sup>. Finally, the relationship of OCF and higher level strategic objectives has been clarified.
- 5.3.7. The model will continue to evolve as more information becomes available and initial analysis suggests how it can be optimised or made more rigorous.

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<sup>1</sup> Some criteria under this heading have been redacted in this document to avoid potentially compromising subsequent commercial processes.

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Figure 3: OCF Model

#### **5.4. OCF Workshops**

- 5.4.1. An initial workshop is required before the Public Consultation because there will be information to assess, changes may be needed to the model, and a view of the emerging picture is required for the Consultation Document. This will be facilitated but is likely only to involve the MOD project team and MOD stakeholders.
- 5.4.2. The main OCF workshop will take place after the feedback from consultation has been assessed. This will be a facilitated workshop with a similar format and attendance list to the MGBC equivalent.
- 5.4.3. OCF analysis output is necessarily qualitative. There is no OCF 'score' for the options. Rather, the analysis is intended to answer three questions which will be discussed at the main OCF workshop in respect of each OCF.
- How might the OCF affect the BCRN decision? This may be developed using influence/causal diagrams but is presented in text form.
  - What is the logic of that influence, and how should it be taken into account? This can be developed in advance if necessary using scenario analysis for the more complex OCF.
  - To what extent does this logic render some of the options more or less attractive?

### **6. Integration**

- 6.1.1. This section describes how the IA and OE analyses are brought together to generate the COEIA plots and how the OCF results are then factored in.
- 6.1.2. The costs and associated uncertainties from the IA are combined with the option scores and associated uncertainties from the OE analysis to generate the COEIA, which evaluates the relative Value for Money (VfM) for each of the options. The OE analysis provides an overall 'Measure of Effectiveness' (MoE) against the project's functional requirements for each option and the IA provides a 'should cost' for each option - both at 10/50/90 confidence levels. Plotting them against each other allows relative cost/effectiveness ratios (indicating VfM) to be easily visualised. A (hypothetical) example is shown in Figure 4 below.

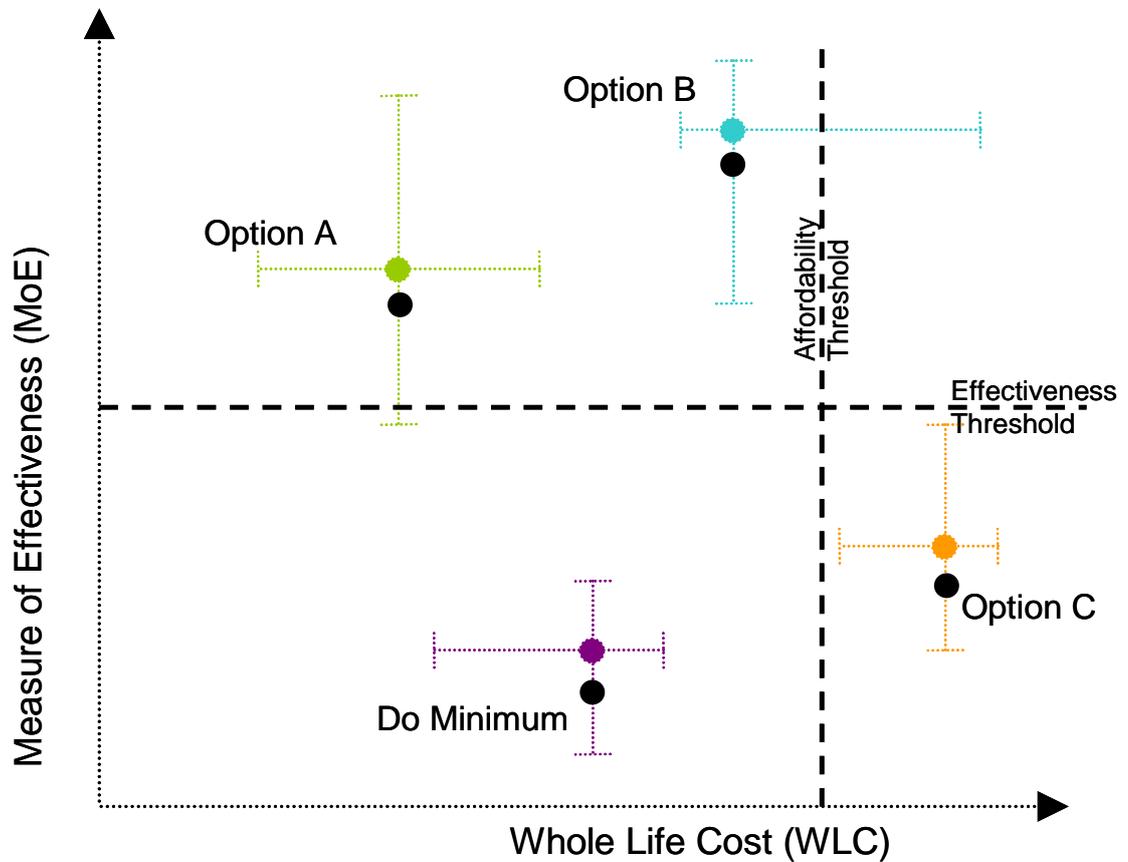


Figure 4: Illustrative COEIA Plot

- 6.1.3. OCF insights are then integrated into this picture to generate an overall decision logic, leading to a recommended site.
- If OCF are able to differentiate between options which are not differentiated in terms of cost-effectiveness, they will be used to identify the recommended option.
  - If OCF are very significant, to the point of presenting a potentially insuperable problem, they may be used to overturn a recommendation on the grounds of cost-effectiveness.
- 6.1.4. The output from this analysis may of course be modified subsequently at business case level e.g. to take account of national level strategic factors leading to an announced decision.

## Annex A: Abbreviations

BCRN	Business Case Review Note
COEIA	Combined Operational Effectiveness and Investment Appraisal
DE&S	Defence Equipment and Support
IA	Investment Appraisal
ILW	Intermediate Level (radioactive) Waste
MCDA	Multi-Criteria Decision Analysis
MGBC	Main Gate Business Case
MOD	Ministry of Defence
MoE	Measure of Effectiveness
NDA	Nuclear Decommissioning Authority
NPV	Net Present Value
OCF	Other Contributory Factors
OE	Operational Effectiveness
PSE	Public & Stakeholder Engagement
RPV	Reactor Pressure Vessel
SDP	Submarine Dismantling Project
SEA	Strategic Environmental Assessment
VfM	Value for Money
WLC	Whole Life Cost

## Annex B: Key References

Title	Originator	Reference/ Version	Date	Classification
SDP: ILW Storage Site Selection: Approach to Decision Making	ISM	Issue 2.0	June 2014	Unclassified
SDP: ILW Storage Site Selection: Approach to Public & Stakeholder Engagement	ISM	Issue 2.0	June 2014	Unclassified
SDP: ILW Storage Strategic Environmental Assessment Scoping Report	ISM	Issue 2.0	June 2014	Unclassified
SDP: ILW Storage Site Selection: Criteria & Screening Report	ISM	Issue 2.0	June 2014	Unclassified

- 6.1.5. These references can be found at: <https://www.gov.uk/government/publications/submarine-dismantling-project-interim-storage-of-intermediate-level-radioactive-waste>

## Annex C: OE Criteria Scales & Weights

### MCDA Criteria Weights

Table 1 shows the criteria weights for the full MCDA Model. Please note that those criteria marked with an asterisk (\*) are not relevant to the storage site decision as they are relevant to the dismantling criteria only. It should be noted that during the workshop, 2b-OP was split into 2bi-OP and 2bii-OP to reflect the flexibility of transportation approach for Astute and Successor respectively. Please note these criteria and weights will be reviewed in light of the public consultation feedback prior to the detailed analysis of the final site options.

Area	Weight	Criterion	Weight	Sub-Criterion	Weight	
POL	22.16%	2-POL Compliance with UK Policy and Strategy on Radioactive Waste Management	5.89%	*2a-POL Compliance with UK Policy and Strategy on Radioactive Waste Management (Dismantling)	2.24%	
				2b-POL Compliance with UK Policy and Strategy on Radioactive Waste Management (RPV Transportation)	1.54%	
				2c-POL Compliance with UK Policy and Strategy on Radioactive Waste Management (RPV Storage)	2.11%	
		3-POL Scope/Extent of Transportation of Submarines and Radioactive Waste	3.46%	*3a-POL Scope/Extent of Transportation of Submarines and Radioactive Waste (Dismantling)	1.72%	
				3b-POL Scope/Extent of Transportation of Submarines and Radioactive Waste (RPV Transportation/Storage)	1.74%	
		4-POL Unauthorised Access to Classified Materials	7.43%		*4a-POL Unauthorised Access to Classified Materials During Dismantling	5.25%
					4b-POL Unauthorised Access to Classified Materials During RPV Transportation	1.05%
					4c-POL Unauthorised Access to Classified Materials During RPV Storage	1.13%
		*5-POL Compliance with UK Decommissioning Policy	5.36%	N/A	N/A	N/A

OP	29.71%	1-OP Impact on the Maritime Enterprise / Wider MOD	10.85%	*1a-OP Impact on the Maritime Enterprise / Wider MOD (Dismantling)	7.01%
				1b-OP Impact on the Maritime Enterprise / Wider MOD (RPV Transportation)	0.82%
				1c-OP Impact on the Maritime Enterprise / Wider MOD (RPV Storage)	3.02%
	2-OP Flexibility of Approach to Managing Future Classes	4.71%		*2a-OP Flexibility of Dismantling Approach to Managing Future Classes	2.24%
				2bi-OP Flexibility of Transportation Approach to Managing Future Classes (Astute Class)	0.79%
				2bii-OP Flexibility of Transportation Approach to Managing Future Classes (Successor Class)	0.79%
				2c-OP Flexibility of Storage Approach to Managing Future Classes	0.89%
	*3-OP Threat to Skill and Experience Set (Dismantling Only)	8.58%		N/A	N/A
				*4-OP Transferable Dismantling Knowledge	5.56%

H&S	25.84%	1-H&S Worker Dose	7.28%	*1a-H&S Worker Dose: Dismantling	3.38%	
				1b-H&S Worker Dose: RPV Transportation	1.73%	
				1c-H&S Worker Dose: RPV Storage	2.17%	
	2-H&S Non-Radiological Impact on Workers	9.88%			*2a-H&S Non-Radiological Impact on Workers (Dismantling)	6.46%
					2b-H&S Non-Radiological Impact on Workers (RPV Transportation)	1.59%
					2c-H&S Non-Radiological Impact on Workers (RPV Storage)	1.83%
	U-H&S Potential for an Unplanned Radiological Release	8.68%			*3-H&S Potential for an Unplanned Radiological Release During Dismantling	3.42%
					4-H&S Potential for an Unplanned Radiological Release During RPV Transportation	2.40%
					5-H&S Potential for an Unplanned Radiological Release During RPV Storage	2.86%

ENV	22.32%	1-ENV Minimising Radiological Discharges to Protect the Public	5.19%	*1a-ENV Minimising Radiological Discharges to Protect the Public (Dismantling)	1.73%			
				1b-ENV Minimising Radiological Discharges to Protect the Public (RPV Transportation)	1.73%			
				1c-ENV Minimising Radiological Discharges to Protect the Public (RPV Storage)	1.73%			
	2-ENV Minimising Radiological Discharges to Protect the Environment	4.05%	*2a-ENV Minimising Radiological Discharges to Protect the Environment (Dismantling)	1.35%	2b-ENV Minimising Radiological Discharges to Protect the Environment (RPV Transportation)	1.35%		
							2c-ENV Minimising Radiological Discharges to Protect the Environment (RPV Storage)	1.35%
	3b-ENV Non-Radiological Impact on Public (RPV Transportation)	0.75%						
	3c-ENV Non-Radiological Impact on Public (RPV Storage)	1.57%						
	4-ENV Non-Radiological Impact on Environment	3.99%	*4a-ENV Non-Radiological Impact on Environment (Dismantling)	2.72%	4b-ENV Non-Radiological Impact on Environment (RPV Transportation)	0.40%		
							4c-ENV Non-Radiological Impact on Environment (RPV Storage)	0.87%
	5b-ENV Impact on the Built Environment (RPV Transportation)	0.57%						
	5c-ENV Impact on the Built Environment (RPV Storage)	1.32%						
	6-ENV Impact from the Natural Environment	2.39%	*6a-ENV Impact from the Natural Environment (Dismantling)	1.44%	6b-ENV Impact from the Natural Environment (RPV Transportation)	0.23%		
							6c-ENV Impact from the Natural Environment (RPV Storage)	0.72%

