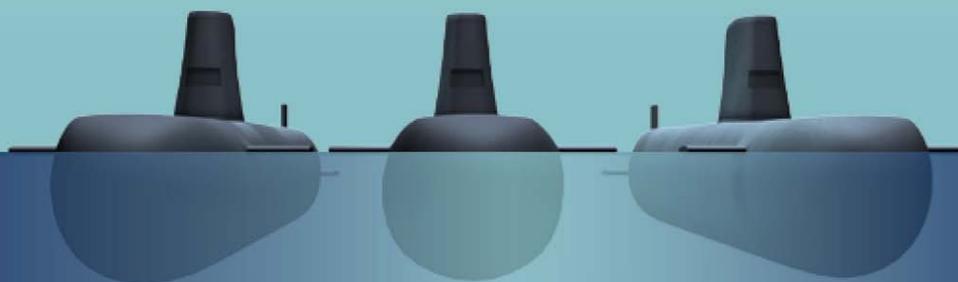


Submarine Dismantling Project (SDP)

Post Consultation Report Annexes

ANNEXES A -N



MINISTRY OF DEFENCE



SUBMARINES

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A. Publicity Materials

A.1. Publicity Activities

A.1.1. The table below provides details of some of the publicity activities undertaken for each local event. Example of the materials used are provided in the pages that follow.

	Newsletter direct mailings	Newspaper adverts (circulation figs)	Locations documents available	Leaflets distributed	Shops where notices displayed
Plymouth	19,473	Plymouth Herald (29,709)	Libraries: Central, St Aubyn and Devonport Plymouth Civic Offices Office of Oliver Colvile MP Office of Alison Seabeck MP	498	57
Cornwall	11,078	Cornish Guardian (26,939) Cornish Times (12,387)	Saltash Town Council Torpoint Town Council	158	6
Edinburgh	4,296	Edinburgh Evening News (41968)	Edinburgh City Council office Edinburgh Central Library	590	12
Fife	10,729	Courier (61,981) Dunfermline Press (16,094)	Fife Council Parkgate Community Library	372	4
Linlithgow	9,019	Falkirk Herald (22,642) Linlithgow Journal* (7,360)	Office of Michael Crockart MP	27	2

Figure 1: Publicity Activities for Submarine Dismantling Consultation

A.2. Advertisements



The advertisement is a full-page layout with a blue and white color scheme. At the top, it features the 'de&s SUBMARINES' logo on the left and the 'MINISTRY OF DEFENCE' crest on the right. The main heading is 'PUBLIC CONSULTATION' in large blue letters, followed by the text 'The Ministry of Defence invites you to a public exhibition about its Submarine Dismantling Project:'. Below this, key details are listed: Venue (Plymouth Guildhall), Dates (Nov 12-16, 2011), and Workshops (Nov 12-14, 2011). A 'Did you know?' box states that 90% of nuclear submarine material is recycled. A 'Have Your Say' box encourages participation in workshops. A dashed-line box contains a registration form with radio buttons for dates and times, and fields for name, address, postcode, and email. At the bottom, it says 'Submarine Dismantling Project' and shows an illustration of three submarines.

de&s
SUBMARINES

MINISTRY OF DEFENCE

→ PUBLIC CONSULTATION

The Ministry of Defence invites you to a public exhibition about its Submarine Dismantling Project:

Venue: Plymouth Guildhall, Armada Way, Plymouth PL1 2AA

Dates: Saturday 12 November, Sunday 13 November, Monday 14 November, Tuesday 15 November and Wednesday 16 November 2011

Workshops: Saturday 12 November, Sunday 13 November and Monday 14 November

Time: 11am – 7pm

This is an opportunity to find out more about the Ministry of Defence's proposals for dismantling and disposing of nuclear submarines which have left service with the Royal Navy, to speak to the project team and express your views.

This exhibition is part of the public consultation on our plans for submarine dismantling and we are committed to seeking your views before any key decisions are made. Copies of the main consultation document will also be available at the exhibition.

More information, including details of all consultation events and the consultation document, is available from www.mod.uk/submarinedismantling

Did you know?
Around 90% of the material in a defuelled nuclear submarine can be recycled.

Have Your Say
If you would like to take part in a workshop to discuss these plans with the project team please complete and return the slip below by Freepost. Workshops are due to run for 90 minutes.

I would like to take part in a workshop at Plymouth Guildhall on:

Saturday 12 November Sunday 13 November Monday 14 November

I would like to attend the workshop that starts at:

11.30am 1.00pm 3.00pm 4.30pm 6.00pm

Name:

Address:

Postcode:

Tel: **Email:**

Send to: FREEPOST RSKJ-KRAH-YZRJ,
Submarine Dismantling Project, c/o Green Issues Communications Ltd, 30-31 Friar Street Reading, RG1 1DX.
Alternatively, you can call 030 679 83793 or email dessmis-sdp@mod.uk

Please tick the box if you would like to be kept up-to-date by email as the project progresses.

Submarine Dismantling Project

Figure 2: Example of full-page full colour advertisement (as placed in Plymouth Herald)

A.3. Leaflet



de&s
Submarine Dismantling Project

MINISTRY OF DEFENCE

→ PUBLIC CONSULTATION

The Ministry of Defence invites you to a public exhibition about its Submarine Dismantling Project:

Venue: Linlithgow Burgh Halls, The Cross, Linlithgow, West Lothian EH49 7AH

Dates: 3rd, 4th and 5th February 2012

Workshops: 3rd February 2012

Time: 11.30, 13.00, 15.00, 16.30 and 18.00

This is an opportunity to find out more about the Ministry of Defence's proposals for dismantling and disposing of nuclear submarines which have left service with the Royal Navy, to speak to the project team and express your views.



Did you know?
Around 90% of the material in a defuelled nuclear submarine can be recycled.

This exhibition is part of the public consultation on our plans for submarine dismantling and we are committed to seeking your views before any key decisions are made. Copies of the main consultation document will also be available at the exhibition.

More information, including details of all consultation events and the consultation document, is available from www.mod.uk/submarinedismantling

If you would like further information about the project please contact us:

By phone: 030 679 83793

By email: dessmis-sdp@mod.uk

By freepost: **FREEPOST RSKJ-KRAH-YZRJ**, Submarine Dismantling Project, c/o Green Issues Communications Ltd, 30-31 Friar Street Reading, RG1 1DX

Figure 3: Example of a leaflet (as distributed for local exhibition in Linlithgow)

B. Questionnaire

Submarine Dismantling Consultation Questions and Feedback Form

Please answer as many questions as you wish to – you do not have to answer them all.

Q1. What are your views on the overall objectives for the dismantling submarines that have left service? [chapter 4]

Q2. What are your views on the options for how the radioactive materials could be removed from the submarine? Do you think any significant options have been left out? [chapter 6]

Q3. What are your views on the candidate sites for where the radioactive waste is removed from the submarines? Do you think any significant options have been left out? [chapter 6]

Q4. What are your views on the options for which type of site is used to store the intermediate level waste from submarine dismantling? Do you think any significant options have been left out? [chapter 6]

Q5. What are your views about the methods used to compare dismantling and storage options, in particular the factors considered to assess their suitability/effectiveness / performance? [chapter 6]

Q6. Do you think we have captured all the potential advantages and disadvantages and if not which others would you propose? [chapter 7]

Q7. Are there any other significant issues or factors you think we have overlooked? [chapter 7]

Q8. What are your views on our proposals, and associated rationale, for:

- a. how we remove the radioactive waste [chapter 8]
- b. where we remove the radioactive waste; and [chapter 8]
- c. which type of site will be used to store Intermediate Level radioactive Waste? [chapter 8]

Q9. Do you have any comments on the next stages of decision making process that will follow this consultation? [chapter 9]

Q10. Do you have any comments about how this consultation has been conducted? Did the consultation provide enough information for you to reach views on the key decisions? Did it meet the seven consultation criteria of the government Code of Practice (outlined at Annex D)?

Environmental Questions

Please refer to the Environmental Report and Non-Technical Summary for the information you need to answer the Strategic Environmental Assessment questions.

Q11. Do you think that the Environmental Report has captured the significant environmental effects of the SDP options? If not, what effects do you think we have missed, and why?

Q12. Is there any other baseline environmental information, relevant to the SEA that we have not included? If so, please provide details.

Q13. Do you agree with the proposed arrangements for monitoring significant effects of the SDP options, detailed in the environmental report? If not, what measures do you propose?

Q14. Do you agree with the conclusions of the Report and the recommendations for avoiding, reducing or off-setting significant effects of the SDP options? If not, what do you think should be the key recommendations and why?

Q15. Are there any other comments you would like to make?

If you wish to add further comment please enter your response here

About you...

- Are you happy for your comments to be published on our website?
- If so, do you want to be named alongside your comments when the responses are published on the website?
- Please add contact details here:
- Are you a Local Resident to Devonport or Rosyth Dockyards?
- If other, please state where?
- Are you representing an Organisation?
- If so, please state which one:

You can return your questionnaire either by email attachment to DESSMIS-SDP@mod.uk

Or by post to:

FREEPOST RSKJ-KRAH-YZRJ, Submarine Dismantling Project, C/o Green Issues Communications Ltd, 30-31 Friar Street, Reading, RG1 1DX.

C. Website Visits

C.1.1. The table below shows the numbers of visitors to various pages of the SDP website (www.mod.uk/submarinedismantling) during the consultation period. (NB: These figures count each visitor to a page only once rather than each time the visitor views the page.)

Page Title	Page Visits					
	Oct 11	Nov 11	Dec 11	Jan 12	Feb 12	Total
Submarine Dismantling Project (HOME)	1019	1072	721	593	540	3945
Public Consultation Document	182	526	233	247	209	1397
SDP - Document guide	100	339	188	169	148	944
SDP - About	245	257	139	121	109	871
SDP - Latest News	212	179	118	115	99	723
SDP - Interim Feedback report					91	91
SDP - Consultation events	246	300	161	109	75	891
SDP - Level 2 Supporting Documents		96	65			161
SDP - Stakeholder Groups		81				81
SDP - Level 5 Supporting Documents		74				74

Table 1: SDP website visits during public consultation period

D. Coded Responses – Results

D.1. Example

D.1.1. The tables that follow in this section illustrate the number of comments received under according to the coding scheme described in the main report Section 6.2.

D.1.2. To demonstrate how the coding system works, a worked example of a comment that has been coded is shown below.

Example:

“The location of the GDF should be decided now and built sooner. Nuclear submarines should only be dismantled when there is a permanent disposal facility for ILW.”

Since the comment makes two distinct points, two code sets are applied to it. The comment argues against the project aims as stated. The comment also argues for delaying dismantling until a long-term radioactive waste disposal route is available. The following code sets therefore apply:

Code Set	Subject	Topic	Point
1	Aims and Objectives (AIM)	Project Aims (GEN)	Oppose (OPP)
2	Interim ILW Storage (STO)	Geological Disposal Facility (GDF)	Solution Needed First (SOL)

D.2. Codes Keys

D.2.1. The key to the codes for each subject and topic is shown below.

AIM - AIMS AND OBJECTIVES			
FUT	Future Submarine Classes	STA	Start the Process
GEN	Project Aims Objectives	MET	Technical Aims Objectives
NXT	Next Stage	COM	Compensation Packages
CON - CONSULTATION			
GEN	Consultation General	SIF	Scope to Influence
MET	Method / Process	PUB	Publicity
INF	Information Provided	FBK	Ability to give feedback
OPN	Openness / Transparency	FUT	Further Consultation
MTG	Events / Workshops	PRE	Previous Consultations
WEB	Website		
DEC - DECISION MAKING			
GEN	General	STK	Stakeholder Involvement
MET	Method	COM	Commercial Influence
CNC	Conclusions	FIN	Finance Influence
FAC	Range of Factors	SAF	Safety Importance
ADV	Adv/ Disadvantages	ENV	Environmental Factors
TEC	Dismantling Method	PGM	Programme Management
LOC	Dismantling Location	WTS	Weights Tradeoffs
STO	Storage	OPS	Impact on Operations
RSK	Risk		

IMP - IMPACT			
GEN	General	TOU	Tourism
MET	Technical Method	PRP	Property Values
ECO	Economy/ Business	OPS	MOD Operations
DRG	Dredging Implications	PUB	Publicity/ Openness
ENV	Environment	OCF	Other Socioeconomic
DIS	Discharges	RSK	Risk Stated/ Evaluation
HLT	Health	HRA	Habitats
JOB	Jobs	SAF	Safety/ Accidents
LOC - LOCATION			
CIT	City	TWO	Dual Site Option
MET	Technical Method	TOW	Movement of Submarines
GEN	General	SQP	Skilled Personnel
OPT	Range of Options	SAF	Safety
DEV	Devonport	TRA	Transport
ROS	Rosyth		
STO - STORAGE			
GEN	General	MET	Technical Method
OPT	Range of Options	POO	Point of Origin
COM	Commercial Sites	MOD	MOD sites
REM	Remote Location	GDF	Geological Disposal Facility
RWM	Radioactive Waste Management	TRS	Waste Transport / Security
TEC - TECHNICAL OPTIONS			
GEN	General	MIN	Do Minimum (no dismantling)
TEC	Technical	DEM	Demonstrator
OPT	Dismantling Options	SQP	Qualified Personnel
PW	Packaged Waste option	SAF	Safety
RC	Reactor Compartment option	RPV	Reactor Pressure Vessel option
SEA			
GEN	General	MET	Technical Method
ALP	ALARP	EES	Range of Environmental Effects
BAS	Baseline Options	MON	Monitoring
CNC	Conclusions	DOC	Documentation
RSK	Risks	SAF	Safety
OCF – OTHER CONTRIBUTORY FACTORS			
GEN	General	MOD	MOD Reputation
MET	Technical Method	COM	Commercial Approach
LOC	Local Area Vision	GOV	Government Attitude
PCF	Public Confidence	TLM	Through Life Management
POL	Political and Policy	SFR	Safety Record
SCO	Scottish Political Landscape	PRJ	Other Project Interactions
HER	Heritage	LTH	Long-Term Health Impacts
FUT	Future Generations	STI	Stigmatisation of Local Area
OOS – OTHER ISSUES, 'OUT OF SCOPE'			
GEN	General	WEP	Nuclear Weapons
MET	Technical Method	CUR	Current Operations

NUC	Nuclear Submarines	FUE	Spent Fuel
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D.3. Coded Responses

The numbers of responses allocated to each code, divided by subject area, are given in the tables that follow.

	TOTAL	OPPOSE	SUPPORT	DETAILED SUGGESTION	SCEPTICAL	MORE WORK NEEDED	QUESTION	IMPORTANT	NO FURTHER COMMENTS
AIMS									
Future Submarines	17	2	2		2	6		5	
Project Aims & Objectives	97	18	48	6	10	10	1		4
Next Stage	80		6	31	15	5	1		22
Start of the Process	55	8	37		4		2	4	
Technical Aims Objectives	2	1			1				

	TOTAL	OPPOSE	SUPPORT	DETAILED / SUGGESTION	SCEPTICAL	MORE WORK NEEDED	QUESTION	IMPORTANT	TOO COMPLEX	NO FURTHER COMMENTS
CONSULTATION										
General	62	7	17	6	3	3	1		6	19
Method	13	1	10			1			1	
Financial Data	7	1			1	5				
Information Provided	92	8	44	12	1	14	2	1	10	
Transparency	22	2	4	2	5	1		7	1	
Consultation Events	47	8	33	4	1			1		
Website	2			2						
Scope to Influence	55	30			19			7		
Consultation Publicity	46	24	8	4	1	5		4		
Ability to Give Feedback	16	5	1	3				1	5	
Further Consultation	30	1	15					14		
Previous Consultations	24		1	14	1			8		

	TOTAL	OPPOSE	SUPPORT	DETAILED SUGGESTION	SCEPTICAL	MORE WORK NEEDED	QUESTION	IMPORTANT	DON'T KNOW	TOO COMPLEX	NO FURTHER COMMENTS
DECISION MAKING											
General	7	6	7	12		3			7		
Method	4	10	4	5	8				4	3	
Conclusions	2	6	1	8	1	1		1	2		
Range of Factors	3	8	14	1	41	3		1	3	1	33
Adv / Disadvantages	12	41	8	4	19			3	12	2	7
Removal Method	10	30	7	13	5	1	2	3	10	3	3
Removal Location	16	30	10	9	14	2	1	1	16		2
Storage	8	18	12	11	17	1	4	2	8		2
Risk			3	1	4		4				
Stakeholders	5			1	6		4		5		
Commercial Influence	1		2	9		1			1		
Finance Importance	25		1	15	2		3		25		
Safety Importance		1	1	5	2	1	36				
Environmental Factors	2	1	2	1	6		7		2		
Programme Mgmt			6	3	1	4	3				
Weights Tradeoffs	16	34	11	3	13	3		2	16	2	4

	TOTAL	OPPOSE	SCEPTICAL	DETAILED SUGGESTION	MORE WORK NEEDED	QUESTION	IMPORTANT
IMPACT							
General	6	5		1			
Economy / Business	12	1	1		11		1
Dredging Implications	4		1		1	1	
Environment	18		8	8	17	2	4
Discharges	5		2	4	3	1	2
Health	17		3	5	23		12
Jobs	2	8	4	9	1		5
Tourism	12	1	1	1	2		1
Property Values	1			1			1
MOD Ops	1		2	1			
Other Socioeconomic			2		9		6
Risks Stated / Evaluation				2			
Habitats					7		
Safety / Accidents	29	1	1	14	8		3

LOCATION	TOTAL	OPPOSE	SUPPORT	SCEPTICAL	DETAILED SUGGESTION	MORE WORK NEEDED	QUESTION	IMPORTANT	NO COMMENT
City	79	78			1				
General			1						
Range of Options	18	37	10	6	29	4		18	5
Devonport	145	37	4	9	2	2		145	
Rosyth	11	17	4	5	1	2		11	
Dual Site Option	6	51		2		1		6	
Movement of Submarines	16		4	2	1		1	16	
Skilled Personnel		10	4				5		
Safety				1	1		4		
Transport	2		1		2		1	2	

SHIP BREAKING	TOTAL	OPPOSE	SUPPORT	DETAILED SUGGESTION	SCEPTICAL	MORE WORK NEEDED	QUESTION	IMPORTANT
General	2	2						
Location	8		1	3		1		3
Recycling	13		4	4	1	2	2	0
Transport	4			1		3		
Transport	1			1				

OUT OF SCOPE	TOTAL	OPPOSE	SUPPORT	SCEPTICAL	DETAILED SUGGESTION	QUESTION	IMPORTANT
Navy - General			1				
Nuclear Submarines	25	2	2	1	1	2	
Nuclear Weapons	1			1			
Submarine Operations	1		2	1	1	2	2
Spent Fuel	4		5	4	8	1	3

E. Workshops - Plymouth

E.1. 12 Nov 11 - 11:30 Workshop

E.1.1. Recorded by Victoria Lewis-Stephens , Carol Jackson-Doerge

Attendees - 9

- When discussing how dismantling of submarines should be actions those present sought clarification on the cost and associated storage cost associated with the project
- Attendees asked if there were implications associated with the method of transport used as current storage containers are based on current design, presumable in the future bigger storage containers would be needed
- Stakeholders asked if Scottish independences issues were factored into the project plan
- Many were interested to explore if there would be increase employment opportunities for local people
- Another attendee asked should the decision be to “cut up” would that mean others would be brought to Plymouth from Rosyth
- There was general concern that local MPs have not to date commented on the project and it was suggested that presumably they are awaiting the outcome of the consultation before airing their views
- Another stakeholder asked “what is the MOD’s preferred site”
- Many felt that “perception” of storage of waste is a issue locally and the impact on the public and future employment opportunities of the wider area of Plymouth in the future
- Generally stakeholders wanted to understand the hazards associated with the project
- An attendee asked if special facilities for the cutting up option would need to be built
- “People do not understand about nuclear waste do not cut up in Plymouth leave it in tact”
- Many felt that the big issue is that people feel safe and secure and that all measures are undertaken to address their primary concerns
- When debating how he MOD could improve how it communicates with the public on the project it was felt that it should be described in Easy Terms and keep it simple

E.2. 12 Nov 11 - 13:00 Workshop

E.2.1. Recorded by Alice James

Attendees - 8

- Should you not be mentioning that six of the subs in Devonport still have their fuel rods in? – CANSAR
- Another workshop attendee wanted to know whether there are any problems/ issues in areas where nuclear tipped weapons are stored? (S)he further questioned whether ‘ballistic missiles in the habit of leaking?’
- When discussing RPV removal and storage a member of the workshop wanted to know the percentage of decay

- The workshop attendee stated that throwing away large pieces of radioactive material seems less dangerous than cutting them up. (S)he felt that this was especially the case for the workers that are involved in the process
- The stakeholder added that it is difficult to imagine a way to cut up radioactive material that won't generate more radioactive waste, it should be kept at a larger size
- A stakeholder wanted to know what size storage area you are looking for.
- The storage option is stated as a '*major stumbling block*' for the residents group at the table (CANSAR). Their preference would be that the intermediate waste should be stored away from centres of human population. Remote storage is a sellable option for them
- A few members of the workshop wanted to know what America and Russia does for submarine dismantling
- One stakeholder questioned if the storage is dependent on NDA acceptance, is the default option '*cutting up*'
- Stakeholders wanted to clarify whether the two potential options are cut up or store as it is
- One stakeholder questioned whether an intact RC needs to stay where it is removed. The stakeholder added '*transporting the whole RC is a dead duck*'
- Another member of the workshop stated that SDP's problems are trivial with rest of the nuclear industry
- One stakeholder stated that (s)he is concerned about his/her grandchildren's future safety. The stakeholder felt that the health of Plymouth was not focused on enough during the presentation. The stakeholder felt that SDP would have to wait to find out if the proposals are truly safe. (S)he brings up the example of Asbestos and how it is now realised as a dangerous material. (S)he stated that a major concern is the health and safety of Plymouth and the fact that (s)he lives a quarter of a mile away from the site
- It is stated by a stakeholder that they feel that '*all the good stuff goes away and we are left with the rubbish in Plymouth.*' It was added that '*I can't see any sense in cutting it in to pieces and keeping the 'rubbish' in Plymouth*'
- One member of the workshop stated that (s)he is against any of '*this*' being done in Devonport
- The stakeholders were asked 'What would the MOD need to do to convince people about the safety of the SDP', a couple of stakeholders replied that it should not be in Devonport at all. It was added that Plymouth would not be gaining any more jobs from SDP. The stakeholders added that the problems surrounding the SDP is more about the '*mental fear*' that the project is causing
- The proposals to build an incinerator in Devonport were discussed and the fear that it is causing for residents, and how that fear is being amplified by the SDP proposals
- A few members of the workshop added that the residents of Plymouth don't think the MOD are listening
- One member of the group discusses the point about jobs that are reliant on the dockyard
- MOD might want to insure that there is '*clear blue water*' between the incinerator and SDP. It needs to be made clear to residents that the incinerator is not going to be involved in the dismantling
- It was stated that the SDP should take place away from centres of human population
- It was added that any nuclear waste should be separated by hundreds of feet of rock

- 'What are the fears, concerns around storage?' The group stated terrorist activity, fire, anything that could make the waste into a *'dirty bomb'*
- One stakeholder added that the waste doesn't necessarily need to be *'bomb material'* but due to the fear surrounding 'nuclear' it wouldn't take much to cause panic among the local residents
- It was stated that if the MOD were to look at nuclear radiation accidents in the media e.g. Japan, then the MOD would understand the mind-set that the public have about living near to a nuclear waste site. It was added that the MOD need to make it clearer to people that SDP will be dealing with a lump of steel rather than fuel, and that it will decay in the level of radioactivity. There is a big difference between what SDP are proposing and what local residents think it is
- Some members of the group discuss press mishandling of incidents at the Dockyard and the way they are blown out of proportion – Astute fire?
- The workshop was asked whether the information they had been provided was clear enough. The response was that there is a mind-set among people living around the Dockyard and that mind-set hasn't changed over the years. Local residents fear their lives could be at risk
- A stakeholder stated that submarines are refuelled and defueled at the Dockyard and it is accepted as a centre of excellence but the minute you start talking about it as a *'nuclear scrap yard'* then Plymouth loses that reputation
- A member of the workshop wanted to know *'If residents go for the dual site option what will the split be? Will it be 50/50 or 20 submarines at Devonport and 7 at Rosyth?'*
- The demonstrator was discussed by stakeholder. Stakeholders wanted to know where and when the facility will be built. The stakeholders also want to know whether the technical demonstrator will be used to *'cut up'* the RC
- The stakeholders are concerned about the demonstrator and its perception as an *'experiment'*
- One stakeholder asked the question *'to what extent are dismantling these things commercially confidential? Could we have a documentary on how the submarines are taken apart?'*
- One stakeholder stated *'there are currently 10 submarines still in service, what happens when we reach a cross-over point when they don't have that 30 years in afloat storage?'* The stakeholder clarified that the reason for the question was the concern about the dosage of radiation that workers will be exposed to. The stakeholder added that how the dose level is managed is key

E.3. 12 Nov 11 - 15:00 Workshop

E.3.1. Recorded by Alice James

Lt Cdr Chris Hall, Mike Cushen, Simon Tinling, Ian Mathias

Attendees – 6

- One stakeholder asked MOD to clarify what is meant by sustainable development
- The members also wished to know who the SDP would be externally regulated by
- The stakeholders wanted to know what the decay rate is of the nuclear waste
- The stakeholders questioned whether the nuclear waste packaged in *'boxes'* will take up more space

- Another question raised was *'How long is the nuclear waste going to stay in the ground?'*
- One stakeholder stated that the phrase *'postpones major investment and operating costs'* doesn't sit well with your line that SDP is providing a solution for future generations
- A stakeholder wanted that difference between the Office for Nuclear Regulation and NDA explained. They also wanted to know where the Environment Agency will be involved in the SDP
- One stakeholder questioned whether any inactive nuclear sites that could be brought back in to operation, would be.
- A member of the workshop felt that there wasn't an option in the consultation to say *'I want it at Rosyth'*
- Another member wanted to know if the site at Rosyth is a prevailing wind site
- Members of the workshop were upset by the overuse of the word *'cost effective'*
- The workshop members wanted to know how long will it be before the dismantling and storage starts happening
- One stakeholder stated that *'it is a funny use of terminology 'not the default option' that the Dockyard will be used as waste storage'*
- The members stated that they wanted to know who they need to lobby in Whitehall as they feel they cannot solely rely on the public consultation to listen to their views
- The stakeholder stated that Plymouth residents need to be kept up to date with the consultation and SDP progression. They felt that publicising it in the newspapers and the internet would not be sufficient as everyone does not have internet or read the newspapers. The group felt that not enough residents knew about the SDP and the consultation
- The group wanted to know if Plymouth City Councillors had been invited and how many had attended
- The stakeholders wanted to know what the next stage would be if the proposals are granted permission and residents do not want it in Plymouth
- One stakeholder stated that any decision needs to be made with safety as the main focus
- One stakeholder wanted to know *'how safe is safe?'*
- *'You have to be very educated to understand the questionnaire'* the questions are aimed at a small strata of the population
- The group was asked *'How can we keep the local community better informed?'* It was suggested that a form could be put in The Herald and the free newspaper, the Plymouth Extra
- It was suggested that SDP could invite the technical reporter from the Herald to the workshop. The stakeholder added that (s)he hadn't realised that the workshop would be a *'listening exercise'*
- One of the concerns about SDP was the impact to future generations
- It was felt by one stakeholder that elected representatives are not taking their role seriously. The stakeholder added *'why are they not leading people to the consultation'* the stakeholder started to discuss Vivien Pengelly's change of position from opposition to support after financial compensation was discussed
- One stakeholder wanted to know whether Plymouth would receive financial compensation if it became the site of the SDP

- A stakeholder questioned whether Babcock's would be influencing the decision for commercial gain?
- One stakeholder felt that the political importance of Edinburgh to Westminster, compared to Plymouth, will affect the overall decision
- There was a lot of ill feeling towards Plymouth City Councillors among some members of the group
- One stakeholder stated that it would be misleading if people think that there will be job creation from SDP
- A stakeholder stated '*one of the things you should take from this is that the technical options are not a major concern. What is a concern for the local population is the economic and socio-economic impact*'
- One stakeholder felt that the consultation should be led by Plymouth's elected representatives. It was added that '*we are not qualified to comment on the technical options*', the stakeholder clarified that this was his/her personal opinion. The stakeholder stated that (s)he was secure in the safety of the project
- Safety was a huge concern for the rest of the group
- One stakeholder stated that for the sake of 100 jobs Plymouth is committing itself to a nuclear future
- A stakeholder wanted to know how the nuclear waste would be transported out of the city, and whether this would be carried out in the evening
- A concern for the workshop members was the fear that submarine dismantling would begin before the MOD secure an interim storage site
- There were concerns about the levels of radiation and the safety surrounding this. A stakeholder stated that '*all levels of radioactive waste are unsafe*'
- A stakeholder stated '*You should meddle with radioactive waste as little as possible; you store it away from centres of population even if that means it is detrimental to the environment. I do not want option 2, I want the one where you do not meddle with radioactive waste at all. You should tamper with it as little as possible.*'
- A stakeholder stated that the SDP cannot go for option 2 as the deep storage is not big enough to take the whole RC
- One stakeholder added cutting up the pressure vessel is not an option now or in the future
- A stakeholder stated that (s)he is interested in the economic future of Plymouth. The stakeholder felt that if it becomes a '*nuclear waste site*' people and businesses will not invest in Plymouth. The stakeholder added that there will be a difference in perception between the Dockyard as a place for nuclear submarines and as a '*nuclear waste dump*'
- Another concern was the safety of the removal of the fuel rods
- Is there any LLW at all, outside of the RC, in the rest of the submarine
- One stakeholder stated that the nuclear waste should go to Portsmouth. Again, it was felt that Plymouth is left with the '*rubbish*'. The stakeholder used the example of the surface ships going to Portsmouth rather than Plymouth
- The point is raised that the radioactive material could become a '*bomb*' One stakeholder stated that they were concerned about the metal filings not just nuclear liquid
- One stakeholder wanted to know what the nature of the material in the dismantling process is like and whether it could become explosive

- The stakeholders were concerned that the proposed MVV incinerator would be used to burn the LLW
- Some of the group have no trust or confidence in the competence of Babcock
- Some stakeholders are concerned about private company being contracted for the SDP, the stakeholder felt that profit will be more important than safety for a private company
- A stakeholder stated '*is there a link between the leakage of radiation and the high levels of cancer in Plymouth*'. It was added that the health of the local population in Plymouth is already '*under-stress*'
- One stakeholder raised a number of questions around the subject of submarines currently based at Devonport. The stakeholder questioned whether where the submarines are based be subject to discussion, can the defueled subs be redistributed out of Plymouth and could the current ratio be changed?
- The stakeholders wanted to know if there been an assessment of the combined effects of the incinerator and the SDP
- A couple of members of the group wanted to know about the planning process for the SDP and whether Plymouth City Council has any power to stop the project from being in Plymouth
- One stakeholder was angry over the lack of Plymouth councillors and local residents attending the consultation, and added that (s)he is '*disgusted that people who are moaning have not turned up*'

E.4. 12 Nov 11 - 18:00 Workshop

E.4.1. Recorded by Alice James

Attendees – 2

- The stakeholders wanted to know if there are any ideas on where the final Geological Disposal Facility will be
- One stakeholder stated that a dual site will save you money as it will limit the transportation needed
- It was added that a primary concern is the storage and the ploughing of lots of money into a MOD storage facility
- The workshop attendees wanted to come to the consultation so they could understand the decision process
- The stakeholder felt that it is important to maintain the jobs at the dockyard
- One stakeholder stated that they are impressed by the process and the common sense approach that the MOD appear to be using

E.5. 13 Nov 11 - 11:30 Workshop

E.5.1. Recorded by Alice James

Attendees – 4

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

Simon Tinling, Mike Cushen, David Collier (Advisory Group)

- Will the intermediate level waste be transported from Plymouth/Rosyth?
- What is the percentage of ILW and LLW with the heavier submarines. Wouldn't the percentages that you quote in the presentation increase with the size of the submarine
- One stakeholder stated that the SDP claims to not want to postpone the issue for a later generation but the '*rationale*' that is being proposed is leaving it to later generations for the sake of cost reduction
- The stakeholders stated that it needs to be clearer that the deferral to cut up the RPV is due to workers safety
- The stakeholder wanted the stance on job creation to be clarified
- During discussions about ILW storage options, stakeholders wanted to know if interim storage would be at Devonport or Rosyth?
- One stakeholder wanted to know if there was the space if the dockyard was to be used
- One stakeholder added "*I find it scary that you have to say 'no dismantling will take place before a storage solution has been agreed' – scary that you should have to reassure us that this won't happen.*"
- One stakeholder questioned the number of people that received the consultation information in the post. The stakeholder was concerned that the mail out may have been cherry picked as to who should receive the consultation document.
- Other members of the workshop discussed that Plymouth has high levels of apathy
- The stakeholders were asked how can we get more people involved?
- One stakeholder suggested that the MOD could take a more emotive approach to the consultation
- One stakeholder stated that (s)he didn't know how the MOD could make the project more personal to people to make them interested
- Stakeholders suggested that the MOD should flier residents
- One stakeholder stated that the rationale behind the dual sites sounds sensible to him/her. It was added that '*from the sounds of this document it is a no brainer that you do dual sites*'
- One stakeholder stated that it would have a negative impact on tourism and commerce. However, another stakeholder felt that the SDP would not have an effect on tourism in Plymouth as it is currently used as a stop-over destination
- One stakeholder stated that if it can be included in a logical, safe and secure site then the consolidated waste option seems ok
- Another stakeholder stated that in any issue like the SDP the experts should make the final decision
- One stakeholder stated why shouldn't it be at stored at the closest site. It was added that it would be mad if it was transported from Plymouth to Inverness.
- The stakeholders wanted to know how safe the GDF is
- One stakeholder stated that (s)he believes the best method is to store the RPV whole
- One stakeholder stated that (s)he has confidence in the experts that the SDP is a safe as it can possibly be. The stakeholder added that (s)he thinks it is a real shame that it won't generate economic growth

- The stakeholders raised the concern about the cutting up process and the human error that could be involved in it. The stakeholders felt that the more it is handled the more that it is at risk of human error
- The group felt that the rationale behind the proposals makes sense
- One stakeholder stated that *'providing that we are having the full picture I feel reassured.'* However, the stakeholder held major concerns over human error and the security of the material from terrorist activity, for example
- Another security concern for the stakeholders is internal security and the ability for employees to steal the materials for the profit
- One stakeholder stated what is your option if Plymouth doesn't become the base for SDP

E.6. 13 Nov 11 - 13:00 Workshop

E.6.1. Recorded by Alice James

Attendees – 7

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]

- The workshop attendees were asked how they found out about the consultation. All attendees had found out through the mail out, apart from one stakeholder who had heard through friends
- One stakeholder suggested that the consultation should be publicised through Westwood TV and the Job Centre
- One stakeholder wanted to know what the shortfalls might be if conservationist groups were heavily involved in the SDP consultation in Plymouth
- One stakeholder wanted to know if Plymouth is going to become a *'dumping ground'*
- Another stakeholder added *'will the SDP have a potential impact to tourism?'*
- One stakeholder suggested that *'if you move the submarines and did the work somewhere else wouldn't that overcome the obstacles of moving the RC and the dredging'*
- Another stakeholder questioned why the MOD couldn't use Barrow for the SDP, the stakeholder added *'the submarines are built there why can't they be dismantled there?'*
- One stakeholder wanted to know If the MOD go for option 2, what happens with the RC shielding that it is removed from
- A stakeholder questioned whether it is feasible for to transport by road and rail
- It was stated that the transport of the RPV makes it vulnerable in terms of security
- The stakeholders wanted to know if the GDF is going to be in Plymouth
- One stakeholder stated that if the spent fuel rods already go to Sellafield then why can't we send the nuclear waste to Sellafield
- Stakeholders wanted to know if the MOD are looking at building Intermediate Waste storage in Plymouth

- One stakeholder stated that (s)he thinks that it would be a disincentive to businesses choosing to invest in Plymouth if it became a *'nuclear dump'*
- Another stakeholder stated *'One man's dump is another man's storage facility.'* The stakeholder stated *'I don't think that it is a disincentive but it will become a talking point for the media'*
- A stakeholder requested that the SDP process needs to be as transparent as possible. The stakeholder added *'I do not want to have to be a NIMBY'*. The stakeholder wants to have confidence in the process
- One stakeholder reminded the workshop attendees that the nuclear subs have been based in Devonport for a long time
- One stakeholder used a personal experience to highlight the effect that the SDP is already having on the area. (S)he stated that a friend is moving out of the area as they are concerned about their children's future safety)
- One stakeholder stated that Plymouth has a reliance on the dockyard for industry and it would be a shame if Plymouth lost the opportunity to encourage other businesses to come to the area due to the SDP being located in the dockyard
- Some stakeholders felt that if Plymouth became a *'nuclear dump'* Plymouth would not get the inward investment that it needs
- One stakeholder felt that dismantling should happen in the dockyard
- A concern raised was if Devonport becomes the home of SDP and once the current 27 submarines are completed Devonport will automatically have to take on the future decommissioned submarines
- One stakeholder questioned why the hull of the submarine would have to move out of Plymouth. (S)he suggested that a ship breaking facility should be established in Plymouth, it would be a source of job creation and would reduce transportation costs
- One stakeholder stated *'costs always increase in MOD budgets'*. How is cost effectiveness going to sit with the options people can choose, for example if one of those options shoots up in costs will it still be a viable option for people to choose
- The stakeholder added due to cost escalation will you revisit the options and will the options we choose be determined by costs?
- It was stated by a stakeholder that a preferred option would be for the waste to be stored elsewhere, but the stakeholders main concern is that it is not cut up in Devonport
- One stakeholder wanted to know why the waste couldn't be sent overseas to an existing facility e.g. Washington. It was added *'if it is so safe then why wouldn't the Americans take it'*
- There is a concern among stakeholders over Babcock's monopoly
- There is a fear that the demonstrator site would eventually end up as the final SDP site
- Some members were concerned that financial reasons will be the deciding factor in the SDP option chosen
- One stakeholder stated *'If you are moving the rest of the ship anyway then why not transport the RPV as well'*
- One stakeholder stated that they liked the idea of cutting it up in situ
- The stakeholder added that they would prefer the work to be kept local, along with the rest of the submarine, after the RPV has been removed, as it would be a source of job creation if a ship breaking facility is established in Plymouth
- Another stakeholder added that the jobs created will be quite small in comparison with the jobs that will be lost, as a result of having the facility here. The stakeholder felt that the long term damage to Plymouth would be very significant

- One member stated that job retention is still a benefit to the area
- One stakeholder questioned whether there is any evidence on whether there has been an impact on Rosyth business park
- One stakeholder stated that not enough people of Devonport have come forward to take part in this consultation process. The stakeholder felt that people do not understand what happens in the Dockyard and what is going to happen to the Dockyard. It was added house prices will go down for those people. The stakeholder used the example that a lot of people do not know that the fuel rods are already being removed at the dockyard. The stakeholder suggested that the activities of the dockyard need to be more transparent for local people
- One stakeholder added that local residents cannot be forced to read the consultation material and attend the exhibition
- The stakeholders requested that they be invited back to further consultation

E.7. 13 Nov 11 - 15:00 Workshop

E.7.1. Recorded by Alice James

Lt Cdr Phil Northcott, Nigel Parsons and Sally May

Attendees – 4

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

- One stakeholder stated that being exposed to radioactive material is not compatible for people to live a healthy life
- The stakeholders wanted to clarify if the ILW were to be stored for an indefinite period it would reduce in harmful radiation
- So after a period of 30 years the radiation has decayed to a level that is safe?
- One stakeholder wanted to know if a decision has been made whether the material is transported by road, rail or by sea. (S)he added *'will we be told when it is transported out of the city or will it be taken out by stealth?'*
- One stakeholder stated that a fundamental question is why do we have to do it at all, and why can't we just store the RC whole?
- A stakeholder added that in the long term the Sound could recover from the dredging so why can't we ask the Americans to store it
- One stakeholder stated that it seems sensible to store it away from centres of human population like the Americans do. His/her favoured option is to not do this in the middle of a city; it should be away from centres of human population and not accessible for years to come. I am concerned about the dismantling happening in the city
- The stakeholder added that (s)he would prefer that the UK stopped building new submarines
- One stakeholder stated that (s)he is concerned about the knock on effect of the SDP to Plymouth. (S)he added that (s)he wouldn't have come to Plymouth University if this was to happen in Plymouth. The stakeholder added that his/her concern is not just about the

'purse string' economics but also the socio-economic impacts as Plymouth is a poor area already

- The stakeholder stated that his/her personal concern is that it will deter inward investment to Plymouth
- One stakeholder stated *'why are you proposing to dump it in the biggest city in the South West, there is no way that you are going to convince me that having it in such a populated area will ever be safe'*
- The stakeholders felt that Plymouth would become a *'nuclear dump'*
- One stakeholder stated that there is a mentality among the residents of Devonport, due to education and poverty, that means there is no resistance to what happens in Devonport
- One stakeholder asked the question *'how long do you envisage Devonport being engaged in the dismantling project? How long will it take to finish the work on the 20 subs at Devonport? Will the SDP stop in Devonport after the 20 submarines?'* The stakeholder clarified that (s)he is trying to understand the length of time that the SDP will have an impact on Plymouth
- The stakeholder added that (s)he is concerned that a precedence will have been set after the 20 submarines are dismantled at Devonport, and that Devonport will remain as the dismantling site for future submarines and nuclear activity
- The stakeholder stated *'isn't the proposal a bit premature as there is no site to store the ILW generated at Devonport'*
- One stakeholder wanted to know what sites the NDA are looking at for interim storage
- A stakeholder stated *'it is a long time before the GDF will be available. At the start of this meeting you stated that you do not want to leave the problem to future generations but it seems that is exactly what you are doing when you are waiting for the GDF'*. The stakeholder was concerned that if waiting for the GDF option was chosen the ILW would be stored for 24yrs in Devonport until the facility is available
- One stakeholder wanted to know the size of the boxes that the ILW waste will be stored in so as to give him/her a better understanding of the size of the GDF
- One stakeholder stated that a primary concern is safety. The stakeholder felt that regardless of checks and balances put in place, when humans are involved there will always be the potential for human error
- Cancer risk is a concern for the group
- The stakeholders have concerns about safety and the people who are exposed to radiation. The stakeholder added that (s)he sees the SDP as a continuation of the nuclear industry
- A stakeholder stated that the nuclear waste exists and has to now be dealt with and his/her preference would be for it to not be cut up and not stored near centres of human population
- One stakeholder stated that his/her concern is about the risks to people, and how it will tarnish the image of the city
- One stakeholder wanted to know if the ILW would be stored in a licensed site such as the North yard
- A stakeholder wanted to know what consultation has been undertaken with the environment agency about the North Yard being inundated by sea levels. The stakeholder clarified that (s)he is concerned that 2040 is a long way off and sea levels could rise and Plymouth may still be storing ILW at that point

- What is the positive economic impact that the SDP could have on Plymouth e.g. job creation
 - The stakeholder wanted to know if jobs that are not as highly skilled will be created, the stakeholder felt that this would be useful for an area with high indices of deprivation
 - The stakeholder wanted it made clear that the economic impact of not having this facility in Plymouth is 50-100 highly skilled jobs being located elsewhere
 - A stakeholder wanted to know if an analysis of the retention of these jobs and loss of other businesses in the area been undertaken
 - Another stakeholder wanted to know if anyone is actually asking the companies direct whether they would be put off coming to and investing in Plymouth. The stakeholder would like a survey to be carried to assess this. It was added that the SDP need to be active in seeking companies views on whether they would be put off coming to Plymouth and the South West is the SDP was sited in Devonport
 - One stakeholder wanted to ask why London has not been used as a workshop location. The stakeholder thought as London is the centre of business and commerce that is should be included in the consultation locations. The stakeholder suggested that the Enterprise Board should be consulted
- One stakeholder stated that if the SDP were to go ahead what measures could be put in place to capture the concerns of people e.g. health monitors. The stakeholder added *'is there going to be any money from the operators to create bodies to monitor the impacts'*

E.8. 14 Nov 11 - 11:30 Workshop

E.8.1. Recorded by Victoria Lewis-Stephens , Alan Ryall, Alice James and Carol Jackson-Doerge

Mike Cushen, Simon Tinling, Nigel Parsons, Chris Hargraves, Lt Cdr Chris Hall and Dr Sue Jordan

Attendees – 22

1. [Redacted]
2. [Redacted]
3. [Redacted]
4. [Redacted]
5. [Redacted]
6. [Redacted]
7. [Redacted]
8. [Redacted]
9. [Redacted]
10. [Redacted]
11. [Redacted]
12. [Redacted]
13. [Redacted]
14. [Redacted]
15. [Redacted]
16. [Redacted]
17. [Redacted]
18. [Redacted]

19. [REDACTED]
20. [REDACTED]
21. [REDACTED]
22. [REDACTED]

- A stakeholder wanted to know what the life expectancy is of the personnel that are going to operate the dismantling, and whether there has been any research
- One stakeholder wanted the MOD to be able to confirm the length of time that the submarines are laid up for before they are dismantled. The stakeholder wanted agreement that the half-life of cobalt 60 doesn't change
- One stakeholder discussed the problems that GDF tests have encountered in Finland. The stakeholder wanted to know how the MOD can guarantee that the GDF will be available in the time scale suggested
- A stakeholder questioned what the impact on jobs in the Plymouth area would be if the facility was not based in Devonport
- Another stakeholder stated that the MOD would have to do an analysis of blight on jobs and investment in Plymouth if it becomes a 'scrap yard'
- One stakeholder wanted to raise the point about employee training and the amount of training that would be involved before they could take part in the SDP. The stakeholder also wanted to know whether it would be MOD training or would another organisation take that responsibility on. The stakeholder stated that the public should be made aware of the high levels of training involved
- One stakeholder added they are confident that the dockyard already has the highly skilled workers
- A stakeholder wanted the MOD to define what ILW is in terms of the materials involved. The stakeholder added *'is there no medium or high level waste in this project at all'*
- One stakeholder stated that they felt that the presentation didn't have a lot about risk assessment. The stakeholder added that their understanding is there is no licence for radioactive release in to the air from the Dockyard just aquatic. The stakeholder stated that atmospheric releases are a huge concern due to the close proximity to residential areas. The stakeholder wanted to know which of the options has the least risk of atmospheric release, and does the cutting the material increase the chance of atmospheric release?
- Another stakeholder stated that the most dangerous part is removing the reactor fuel and that is already happening at the Dockyard. The stakeholder wanted to know if the two halves of the submarine hull are going to be welded together and towed to a ship breaking yard. The stakeholder felt that this process would be very expensive. They stated that the waste should be disposed of in a safe place when we are ready
- One stakeholder stated that the best plan would be the least invasive option, the stakeholder added that the least cutting up there is the better. The stakeholder was concerned about human error. The stakeholder added *'I do not want my city to become a dump.'* The stakeholder felt that if Rosyth became the site it would encourage Scotland to become independent and Plymouth would then become the default option. The stakeholder stated that they realised that something has to be done but cutting them up in Plymouth is ridiculous. The stakeholder felt that if the MOD does not have a plan now for future submarines then we should not be building future submarines. The health of Plymouth residents was a concern for the stakeholder

- One stakeholder stated that cost effective rationale should not be part of the equation, health should be the principal factor
- One stakeholder stated that the proposal should be the least invasive and that could be achieved by the whole removal to a new, purpose built facility
- The stakeholders have concerns over safety, the stakeholder stated that Devonport wouldn't have the alarm going off every Monday morning if there wasn't a nuclear risk at the Dockyard
- One stakeholder stated *'it seems crazy to have any nuclear activity in an area of large human populations'*
- The stakeholders want to know what safety standards are in place. There were discussions over the sirens at the dockyard
- When one stakeholder discussed the alarm in Devonport dockyard another stakeholder countered the statement by saying we cannot make comparisons with our reactors and the problems with Japan
- One stakeholder stated that they do not want the interim waste storage in Plymouth
- There were concerns about the refuelling process at the Dockyard
- One stakeholder wanted to know if the MOD anticipate the need to ask permission for an increase in the allowed discharge of radioactivity
- One stakeholder felt that in the present economic climate if Plymouth doesn't want the SDP then they think that Rosyth will welcome the jobs
- One stakeholder wanted to know why there is no option in the consultation to choose Rosyth to take the new submarines, why does Plymouth have to take all new submarines. The stakeholder stated that there is no forth option for all current submarines to be dismantled in Devonport but operational submarines can be transported to Rosyth and dismantled. The stakeholder added that it would be safer for Plymouth to decommission subs and then send them to Rosyth
- One stakeholder stated that the hard part is the defueling process, the dismantle is nothing compared to dismantling
- One stakeholder countered that argument by stating we are told defueling is the more dangerous activity but I disagree as we are not cutting the thing apart which the dismantling process will be
- One stakeholder stated that it is hard to separate the refuelling process in the consultation as it is on the basis that Plymouth refuels that Plymouth is now being asked to dismantle
- One stakeholder stated that until there is a refuelling facility elsewhere it will mean that Plymouth will be asked to dismantle
- There were concerns about the health and safety standards. The stakeholders felt that 100% safety is hard to achieve in any workforce
- One stakeholder suggested that one option would be to drain the basin. The stakeholder thought this would minimise corrosion and it could be surrounded by a material that could absorb the radiation, but still allow access. This is opposed to removing the RPV. The stakeholder added that this option implies that any operational submarines cannot come to Plymouth
- One stakeholder stated that a remote location is preferred
- There is a concern that there will be leakage from the submarine. The stakeholder discussed nuclear water
- The stakeholder stated that storing the submarines dry would remove the expensive process of maintaining the submarines when they are stored in the water

- One stakeholder stated that this question has the strongest implications for Plymouth. The stakeholder felt that none of the options put forward included a risk assessment. Then it was added that it should not be stored in a city. The stakeholder suggested that the common sense option is to have a purpose built, remote site away from centres of human population. The stakeholder stated that it should be dismissed that it should be stored in Plymouth. The stakeholder wanted to know if the MOD could clarify the 'effect' on the local population
- One stakeholder wanted to know if the facility stored ILW that it would not take any other nuclear waste
- One stakeholder stated that surely isn't it better to store ILW away from centres of human population. The stakeholder added that the MOD should acknowledge that storing it away reduces risk
- A stakeholder stated that Plymouth would become the 'Sellafield of the South West'
- One stakeholder stated that they had no view on the remote options as they have faith that the best and safe option will be chosen, as long as it is a remote purpose built option
- One stakeholder stated that the private sector should be kept away from the SDP as they are less accountable. The stakeholder would prefer a MOD or NDA remote site due to accountability
- Another stakeholder stated that the MOD must create all the links in the chain before dismantling can begin. It was added that the MOD have to connect up either end, that there is no 'straight away'
- One stakeholder wanted the MOD to clarify the hazards associated with removing the RPV from the primary shield – in particular the radiation hazards
- Another stakeholder wanted to know whether safety cases would be published
- A stakeholder wanted to know what weighting is given to cost and technical consideration
- The stakeholder felt that in context of the defence budget the cost effectiveness of SDP is minimal. The stakeholder added that because of the initial investment in Plymouth by the MOD Plymouth has now become the 'best value for money' option for the SDP
- One stakeholder stated that they realised something needs to happen to the submarines
- One stakeholder stated that the MOD have created a process where the people of Plymouth can either say yes or no, and unless a viable alternative is suggested by the public the consultation exercise will make no difference
- A stakeholder suggested that it will be hard to weigh up the various comments that have been collected
- Another stated that the defueling should stop at Plymouth, they are concerned about this as well as the SDP
- The dredging of the Plymouth Sound was discussed as an issue
- One stakeholder felt that the MOD should learn from the problems of the SDP should not purchase any more submarines before there is process in place to dismantle them
- Another stakeholder suggested that the submarine manufacturer should take on the responsibility of dismantling. Again it was stated that there should be no more submarines built before a dismantling process is place
- Another stakeholder added that we should stop building in Barrow before a solution is determined
- A stakeholder added that this is a failure of narrow, short term consultation
- A stakeholder stated that there should be a plan that limits the future of nuclear activity in Plymouth. The stakeholder added that they do not want Plymouth to become a dump for hundreds of years

- A stakeholder wanted to know what America does for submarine dismantling
- A stakeholder stated that they had an issue with the local media and how it was suggesting that there will be job creation as a result of SDP. The stakeholder used the example of Hartlepool and the 'ghost ships'

E.9. 14 Nov 11 - 13:00 Workshop

E.9.1. Recorded by Victoria Lewis-Stephens and Carol Jackson-Doerge

MOD attendees: Chris Hargraves and Simon Tining

Attendees – 14

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]
13. [REDACTED]
14. [REDACTED]

- It was felt that the location of RPV is an important factor to be taken into consideration
- Stakeholders asked if the MOD has looked at Brownfield sites as an option
- Many felt that there were potential areas of concern relating to transportation of the waste and associated risk of potential contamination
- It was asked if there are independent agencies in the UK who publish information on the nuclear environmental impact associated with ILW and LLW
- Stakeholders asked if there were benefits of not cutting the RPV and what would happen to the rest of the vessel if the pressure vessel is cut out of the hull
- Stakeholders sought clarification as to what facilities would be required and associated risk for removing the RPV
- A view was put forward "do not cut up. It is the best option with little/least impact"
- A Stakeholder asked what has been done about the life expectancy of the workers and could it be confirmed that there is no increased to health to workers associated with the project

E.10. 14 Nov 11 - 15:00 Workshop

E.10.1. Recorded by Alice James and Alan Ryall

MOD attendees: Lt Cdr Phil Northcott, Nigel Parsons and Dr Sue Jordan

Attendees – 4

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

- What is the life span of a Vanguard?
- One stakeholder stated that they were struggling to understand the difference between dismantling and the normal maintenance that already happens at Devonport. It was added that the GDF will not be ready until 2040, the submarines are maintained safely at the moment, so why cut them up before the GDF is available
- The stakeholder stated that the MOD cannot solve the problems with the GDF
- One stakeholder wanted to know what size would the interim storage need to be
- A stakeholder suggested that the RPV should be removed whole and encased by concrete and stored for 30 years
- One stakeholder wanted to know about the safety of transportation. They stated that rail is currently used so why is it being flagged as a problem
- A stakeholder wanted to know if the older ships, such the dreadnoughts, would be dismantled first
- A stakeholder wanted to know what capacity the UK has to take this waste before the 2040 GDF
- One stakeholder wanted to know if the MOD are reasonably confident that the NDA consolidation sites will come forward
- A stakeholder wanted to know what the risks are of cutting up the remaining RC after the RPV is removed
- A stakeholder wanted to know if Babcock is likely to apply for a ship breaking licence
- One stakeholder suggested that if the rest of the submarine still needs to be towed out of Plymouth then that would eliminate the option of removing the whole RC
- A stakeholder wanted to know if there is going to be minimal employment opportunities from the SDP
- A stakeholder stated, from the view point as a resident, that they see the sense in minimising the number of times you have to handle the RPV. The stakeholder added that they are concerned about the safety to the area and the appearance of the Plymouth if the storage facility comes here. The stakeholder has a concern that Plymouth will cease to be an operational base and become a 'dumping ground'. It was stated that Plymouth seems to be getting the less attractive elements of the nuclear submarine industry. The stakeholder wanted assurance from the Government that Plymouth will not cease being an operational naval base
- A stakeholder stated that the risk is no greater than what already happens at the Dockyard. It was added that *'Plymouth is cutting its own throat'*
- A stakeholder discusses the possibility of Babcock creating a ship breaking facility in Plymouth and that it seems logical to keep the submarine hull dismantling in Plymouth
- It was stated that the risks are getting blown out of proportion by the people who are against the proposals
- A stakeholder wanted to know if the submarines would be dismantled on a boat by boat basis

- It was stated that just the very mention of nuclear makes people nervous. The stakeholder wanted to know if there is any health statistics about submariners who are in close proximity to the RC so that people can be calmer about radioactivity
- Stakeholders wanted to know about the American and Russian dismantling process
- A stakeholder stated that the most important issue is the storage and at the moment the MOD don't have any real answers. The stakeholder suggested to the anti-members of the workshop that storage is where you should fight the proposals. The stakeholder stated that their preference would be a NDA removed site
- A stakeholder wondered if the waste could be shipped by barge to Ernesettle
- A stakeholder wanted to know if when you cut and pack this waste in the 3m2 boxes do you have to shield it in concrete
- A stakeholder wanted to know if the MOD is satisfied that the security levels are acceptable when transporting the RPV. The stakeholder continued, are you worried about terrorists looking for material to make it into a 'dirty bomb'
- Stakeholders wanted to know how the LLW would be transported, could it be by ship
- A stakeholder wanted to know if the nuclear waste would be covered by Babcock's licence

E.11. 14 Nov 11 - 16:30 Workshop

E.11.1. Recorded by Alice James and Alan Ryall

MOD attendees: Simon Tinning

Attendees – 2

1. [REDACTED]
2. [REDACTED]

- Stakeholder wanted to know when and where the fuel is removed. The stakeholder suggests that the fuelling and defueling is more radioactive than what you are currently proposing in SDP. The stakeholder would like to know where the fuel is currently sent to
- The stakeholder felt that the GDF is a long way off, and the suggested date of 2040 seems to be a 'random' date
- The stakeholder wanted to know if the GDF is an aspirational target. Is 2040 the time period given to find a final solution for the GDF
- The stakeholder stated that it is not clear where the RPV will go
- The stakeholder wanted to know if there is somewhere else in the world that already carries out submarine dismantling. It was suggested that the submarines and RPV could be sent to America. It was added that most of the submarines are American anyway, so why can't they deal with them
- The stakeholder wanted it clarified that at the moment the MOD do not know where the ILW is going to be stored
- It was stated that all the options for storage result in remote bar the option of it being stored in Plymouth.
- The stakeholder stated that 'for obvious reasons I would prefer for it to not be in my back yard'
- A stakeholder stated that a concern was the cutting of the nuclear waste before there is an agreement of where it can be stored

- The stakeholder wanted the waste to be stored somewhere remote and away from centres of population. The stakeholder stated that they would assume that the NDA would be the best facility as they are already a storage facility. The stakeholder stated that this was a 'vague assumption' without any technical knowledge. A concern for the stakeholder, in regards to a commercial site for storage, is that it will be ran by the '*lowest bidder*'
- A stakeholder stated that they are concerned that a situation will occur where the cutting up will begin without a secure storage solution in place. The stakeholder's fear is that the nuclear waste will just end up being in Devonport anyway as Plymouth will be under pressure to have to have it without a means of final storage
- A stakeholder wanted to know how much nuclear waste that be left
- The stakeholder would like the MOD to clarify that its proposal is to store where dismantling takes place
- The stakeholder wanted to know if waste would accumulate on site before it is transported
- The stakeholder would like to know if the RC is the only radioactive part of the submarine
- A stakeholder wanted to know what the levels of sickness is among submariners exposed to radioactivity
- The stakeholders wanted to know how long it would take to create a facility once the decision is made
- A stakeholder wanted to know how it would be possible to tow the submarine anywhere once the RC is taken out
- A stakeholder stated that Plymouth has had historical problems with dredging
- One stakeholder wanted to know if it is also possible to break the ship in the dockyard. It was suggested that it would reduce transport and provide long term employment. The stakeholder felt that Plymouth will end up with the '*dregs*' if it becomes a '*scrap yard*' and will receive no long term employment
- A stakeholder stated that the track record on nuclear safety is not 100%. There have been a number of spillages, and trying to get hold of the information of those releases is very hard. Health and safety and the discharge levels are a concern
- One stakeholder wanted to know where the nuclear fuel has been removed and transported to. They wanted to know if the defueling creates high level waste? If the defueling is high level waste why would we be worried about the dismantling. The stakeholder wanted to know how wrong the SDP would have to go for it to effect the population of Plymouth. Would the worst case scenario be disastrous
- One stakeholder stated that if it is just sitting there it is emitting radiation that is why we should be concerned. The stakeholder added removing it from the shielding will heighten the risk
- A stakeholder wanted to know how many jobs the SDP will create, and is the work highly skilled
- The stakeholder wanted to know how much money the SDP will bring to Plymouth in terms of employment and inward investment. The stakeholder felt that only Babcock would gain from the SDP
- A stakeholder wanted to know if there is any consideration for freeing up parts of the dockyard for other commercial uses
- The stakeholder wanted the MOD to identify the ILW and LLW waste involved in the project

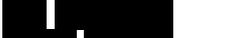
- A stakeholder wanted to clarify the RPV remained in the RC would that imply that the RC has to stay in Devonport
- The stakeholder wanted to know what will happen to all the LLW after the RPV is removed and wanted it clarified that the '*stripping*' of the LLW would not occur in Devonport
- The stakeholder questioned whether the dockyard would have to cope with a lot more LLW treatment if the SDP goes ahead in the Dockyard
- A stakeholder queried why the Americans are able to transport the whole RC to the desert and the MOD are unable to remove it from the dockyard
- A stakeholder would like to know if the SDP will have a knock on effect on future work being here, the stakeholder used the example of future frigate work
- Another concern for the stakeholder is the effect on employment and inward investment not coming to Plymouth. The stakeholder stated that along with the MVV incinerator Devonport will become a '*dump*' area. The stakeholder stated that they felt that the MOD views Plymouth as a '*dump*' site.
- A stakeholder queried whether the families of the frigate are going to want to stay in the area if Devonport becomes a '*nuclear scrap yard*'
- A stakeholder stated that their understanding is in order to keep people safe from the radiation the RPV needs to be contained
- A stakeholder wanted to know when the submarines were designed what were the measures put in place for protecting the RPV from torpedo attack
- It was stated that there is an argument for why is the UK investing in more submarines when we do not have a solution
- The stakeholder stated that the SDP feels like a *fait accompli*, we have to deal with the submarines but we are continuing the problem by buying more submarines
- It was stated that if the SDP happened in Plymouth it would be a sacrifice by Plymouth for the rest of nation. The stakeholder felt that once the 27 submarines are finished Plymouth will just be asked to do it again for future submarines
- A stakeholder stated that it is one thing to be asked to deal with previous generation's problem but the stakeholder felt it would be unfair for Plymouth to deal with future decommissioned submarines
- It was queried whether there are higher levels of expertise in Plymouth compared to Rosyth
- A stakeholder stated that under the dual site option Rosyth will only have to deal with the 7 submarines but Devonport but will have to take on future decommissioned submarines
- The stakeholder felt that if the MOD invested in a facility in Devonport then there would not be the investment in a facility elsewhere in the future. '*If it is built here it will stay here*'
- A stakeholder wanted to know if Plymouth City Council can affect the SDP decision
- The stakeholder added the MOD seemed to imply that you would not have to develop anything large enough to have to apply for planning permission
- It was queried whether Plymouth City Council had commented on the proposals
- The stakeholder wanted to know the turn out for the consultation
- A stakeholder suggested that people are disinterested in the proposals as they assume that the MOD will do what the MOD want to do
- A stakeholder wanted the project teams views so that they could report back to residents group

- The stakeholder wanted to know what type of facility would be needed for dismantling
- A stakeholder stated that they would not want the waste to be stored in Devonport
- A stakeholder wanted to know if the MOD would be interested in giving Devonport a submarine so it could become a tourist attraction
- The stakeholder wanted to know if the submarine hull would be sold or are the MOD paying for it to be scrapped

E.12. 14 Nov 11 - 18:00 Workshop

E.12.1. Recorded by Victoria Lewis-Stephens and Carol Jackson-Doerge

Attendees – 5

1. 
2. 
3. 
4. 
5. 

- One stakeholder felt that option A, how to dismantle provided more contained situation and wondered why it was dismissed
- The group felt that “Got to go forward so needs to be addressed”
- Members asked if there would be a time delay between the dismantling and storage
- The over all opinion for How to Dismantle would be to do it by the safest option
- Clarification was sought on the difference between ILW and HLW and how would they be handled differently
- A question was asked as to what happens if you do not reach a storage solution before reaching capacity
- Overwhelmingly safety is a key concern
- In response to “Where to undertake dismantling” one stakeholder said use a facility that currently exists
- Is there a higher risk of contamination if we cut it up was asked by those present
- Members asked what is half life of the materials contained

F. Workshops - Dunfermline

F.1. 19 Nov 11 - 11:30 Workshop

F.1.1. Recorded by Alan Ryall, Alice James, Carol Jackson-Doerge

MOD attendees: Simon Tinling, Mike Cushen, Nigel Parsons, Lt Cdr Chris Hall, Christine Bruce, Admiral Lister,

Advisory Group Observer: Paul Dorfman

Attendees – 7

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]

- A stakeholder stated that they were surprised that the submarines have been in the Dockyard for 30 years already and the problem is only being tackled now. The last refit at the dockyard was 2003, the stakeholder felt that Rosyth dockyard is a site that the MOD has let become run down
- A stakeholder stated that Rosyth dockyard's capability has reduced over the years. The stakeholder wanted to know if there is the correct infrastructure available at Rosyth dockyard for the SDP. The stakeholder wanted to know if there will be the proper investment in Rosyth dockyard and the appropriate facilities to carry out the work
- A stakeholder stated that '*everybody knows that there are constraints on MOD funding*', the stakeholder added that they are concerned there will be a situation where there is compromise due to uncertainty of funding
- A stakeholder is concerned how long the submarines will be stored afloat until the dismantling takes place; Dreadnought was used as an example. The stakeholder wanted to know how much the submarines are degrading by. The stakeholder stated that the Resolution submarines had ex-navy artifices looking after them, Dreadnought hasn't had the same quality of care and maintenance
- It was queried whether there is a running record of safety checks made
- One stakeholder stated that keeping the RPV whole is technically the best way for them. The stakeholder would like to know the timescales for this option – if Rosyth only deals with the current 7 submarines. The stakeholder stated that if the MOD are aiming for 2020 then the GDF will still be 20 years away
- A stakeholder wanted to know what America, Russia, China and France do for dismantling, and whether the UK are going to mirror their techniques
- A stakeholder wanted to know if arrangements would be made, to make the option chosen binding if Scotland became independent. The UK will have a storage shortfall if Scotland becomes independent and refuses the SDP being based in Rosyth
- A stakeholder discussed the transportation of nuclear waste in Germany. Trains that are used in Germany experience children throwing stones at the train, the

stakeholder was concerned the security of the ILW during transportation. The stakeholder suggests that the ILW should be stored near to the dockyard so the transportation of the waste is reduced

- A stakeholder stated that there should be an agreement in the future that makes it binding for Scotland to deal with the nuclear waste even if becomes independent from the UK
- One stakeholder stated that there doesn't seem to be many local residents objecting to your proposals today. The stakeholder felt that the low turnout suggested residents are comfortable with the proposals
- There was a concern about the long term integrity of the process
- A stakeholder stated that when the initial 7 submarines came to Rosyth there was a feeling among residents that as they had benefitted from the submarines there was a moral reason for Rosyth to take them. The stakeholder was unsure of the current sentiment in Rosyth
- One stakeholder stated that there has been an absence of dissent from people around the table
- A stakeholder stated that the local community were appalled that Rosyth might have to take Devonport's submarines. It was added that this was especially the case due to the political interference when Rosyth lost the submarine contract to Devonport
- The stakeholder wanted to know if there was anything that would change the MOD's preferred option, and could the option be open to political interference
- Stakeholders wanted to know if the independent observer would be present during the whole process, not just the consultation but final decision as well
- A stakeholder wanted to know how the MOD will communicate the final proposal to the local communities involved
- A stakeholder discussed the RD 57 dock facility and nuclear licence. It was added that as long as Rosyth has a nuclear licence there will be the potential for work to be located at Rosyth. The stakeholder wanted to know if the SDP is commercially driven. The stakeholder add that one of their options would be to give Portsmouth a nuclear licence
- While discussing RD57 a stakeholder added that *'you have to revisit the past to see the future'*
- One stakeholder stated that morally Rosyth should take their share of the *'rubbish'*. It was added that the SDP should be a shared responsibility between Rosyth and Devonport
- Another member stated *'but we wouldn't want theirs (Devonport) either.'* The stakeholder stated that they would not want the 17 submarines from Devonport to be dismantled at Rosyth
- There was a group consensus that the rationale behind the MOD's proposals makes sense

F.2. 19 Nov 11 - 13:00 Workshop

Recorded by Alan Ryall, Alice James, Carol Jackson-Doerge

MOD attendees: Mike Cushen, Simon Tinling, Lt Cdr Chris Hall, Nigel Parsons, Les Netherton– advisory group

Attendees – 4

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

- A stakeholder questioned whether it is for certain that future submarines will be defuelled in Devonport and remain in Devonport
- The stakeholder wanted assurance that there is no other ILW in the RC apart from the RPV
- It was stated that the option of keeping the RPV whole, so that the radiation level decreases, assumes that there will be quite a delay between submarines coming out of service and when the dismantling can begin
- A stakeholder was involved in ISOLUS; they wanted to know if there have been any changes in the proposals since then. The stakeholder wanted to know if the turn out for the consultation depresses the MOD or do the MOD view it as a positive
- The stakeholder stated the they appreciate what the MOD are doing, but why are the residents of Fife not interested in the SDP
- It was added that the extra date in Rosyth will not make any difference to the turn out. The stakeholder spoke about one of the previous consultations by ISOLUS, which was based in Rosyth high street only attracted politicians not residents
- One stakeholder stated that they are concerned about the risks associated with radioactivity to workers and residents
- A stakeholder discussed the dry dock in Rosyth and whether this will be used for dismantling. The stakeholder wanted to know how the submarine will be shielded during the dismantling process
- A stakeholder stated that technology has advanced
- It was stated that someone called the SDP a '*highly dangerous plumbing job.*' A stakeholder felt that most people do not understand the type of work that is being carried out. It was suggested that the MOD should explain the SDP as a '*dangerous plumbing job*' to make it clearer what is involved in the process
- A stakeholder wanted to know if the MOD explains to workers and the public that there is a set level of time and radiation dosage that they can do the dismantling for
- One stakeholder stated that they understand the MOD's rationale for a dual site. The stakeholder stated '*I don't think you can do anything else but go for the dual site.*' It was felt that storage is going to be the real issue that angers residents
- Another stakeholder stated that they presume that the MOD hasn't ruled out the option for a single site for the SDP. They added that there is going to be an issue if the Scottish government has an objection against the SDP being located in Rosyth, this will result in the MOD having to transport the waste out of Scotland any way
- The stakeholder added that an objection by the Scottish government would mean that the submarine would be moved out of Scotland whether it is whole or packaged waste
- Two stakeholders felt that party politics would become part of the SDP
- A stakeholder stated that short term storage in an existing facility, such as a NDA site, would reduce cost. However, storing the nuclear waste at Rosyth dockyard would be an issue for the stakeholder. The stakeholder would want to see the ILW stored elsewhere

- One stakeholder's concern is security. It was felt that the RPV would be more exposed to theft compared to a whole submarine. The stakeholder felt that it makes more sense that the MOD should have an easier way of storing waste in a site together with the NDA
- A stakeholder wanted to know if there are any plans for the fuel rods to go to a NDA site. The stakeholder wanted to know if there would be an ILW waste site in Rosyth
- It was queried whether the current facilities at Rosyth have the capacity to cope with the 7 submarines
- A stakeholder wanted to know if the ship breakers yard in Inverkeithing could be used in the SDP, the stakeholder felt that this would be an obvious option as the submarine hull would not have to travel very far
- A stakeholder wanted to know if there is any international collaboration occurring with SDP
- A stakeholder wanted to know why submarines are still being built, what does the UK use them for and do the submarines carry missiles? The stakeholder wanted to know if there is a cheaper option than a nuclear fuelled submarine, suggested diesel
- Stakeholder stated *'what are Green Issues Communiqué telling you that Lancaster University were not telling you'*
- The stakeholder stated that one issue that kept coming up during ISOLUS consultation was people wanted the building of submarines to stop. It was added that they think it is absurd to keep building submarines when there is no solution in place
- The stakeholder suggested that the reason for the low turnout is because the MOD are trying to create a solution that may not come about for decades to come. The stakeholder wanted to know how the project team feels, from a personal point of view, that they may be retired before a decision is made
- It was stated that safety is a concern, even if it presented as being genuinely safe the MOD cannot control human error. The stakeholder hoped that there is a contingency plan in place for accidents
- A stakeholder questioned why, even with the strict safety procedures, is there examples of spillages and leaks. It was added that things can always go wrong, the example of Faslane was used
- Another stakeholder stated that safety procedures become compartmentalised after time. They wanted to know if the MOD are going to stop compartmentalising and look at the worst case scenario of everything going wrong, and not just one thing at a time
- A stakeholder wanted to know which area the MOD will choose for dismantling. They wanted clarification that the older submarines are at Rosyth
- One stakeholder wanted to know what happened with the unsuccessful bid by Babcock to dismantle a submarine

F.3. 19 Nov 11 - 15:00 Workshop

Recorded by Terry Ryall, Alice James, Carol Jackson-Doerge

MOD attendees: Simon Tinling, Lt Cdr Phil Northcott, Nigel Parsons, Alasdair Stirling

Attendees – 4

1. [REDACTED] [REDACTED]
2. [REDACTED] [REDACTED]

3. ■ ■
4. ■ ■

- A stakeholder wanted to know what existing facilities the MOD has for storage. There was concern about timescale. In particular the limited time to build a new facility before capacity is reached. The stakeholder questioned whether the MOD would just end up using an existing facility
- A stakeholder asked whether Rosyth will be the site for the demonstrator
- A stakeholder wanted to know if the full process would need to be in place before the MOD began dismantling
- It was also asked how long the ILW would be stored in Rosyth before it was moved to the storage site
- One stakeholder wanted to know whether keeping the RC whole would add extra level of security, especially for long term storage. The stakeholder wanted to know what the advantages and disadvantages are of keeping the RC whole
- One stakeholder suggested that a dock would be a viable storage option
- Another stakeholder suggested that putting it on a barge and 'float storage' as an option. The stakeholder felt that this option would allow immediate transport if necessary
- A stakeholder wanted to know the amount of time needed for the RPV to decay in radiation
- It was added does the level of ILW/LLW in the RPV really need a deep level disposal facility or is that overkill. Or on the other hand is GDF adequate if it takes that length of time to reduce radiation levels
- A stakeholder wanted to know if the GDF is a recoverable or sealed storage facility
- The stakeholder queried whether the GDF would be built in Rosyth
- It was asked if there is a change in government will the proposals be maintained
- One stakeholder stated due to MOD overspend and the current economic climate are the MOD looking at the cheapest option rather than the safest option
- A stakeholder added that if the MOD want the pilot project to take place towards the mid to end of the decade it is highly unlikely that a new facility will be chosen over an existing facility that only needs modification. The stakeholder wanted to know if the money has been ring-fenced
- There was a concern that if the MOD do not know the final cost of the SDP how can there be money ring-fenced for the project
- It was stated that Rosyth dockyard has undergone considerable change. The dockyard has got rid of most of its decommissioning facilities so how will Rosyth be able to deal with SDP
- It was added that wouldn't it be extra expenditure to re-commission Rosyth dockyard
- A stakeholder wanted to discuss secondary containment and whether it would be a closed or open air dock
- One stakeholder wanted to know why the UK wasn't copying the USA by keeping the nuclear waste away from centres of population. The stakeholder questioned why the MOD are choosing to do it in the middle of cities
- The stakeholders wanted to know what could be the worst case scenario with the SDP that could have an effect on a lot of people
- A stakeholder queried whether it would be more logical for the MOD to build a new facility to deal with ILW. It was felt that the principal factor for the MOD is cost. The

stakeholder added that there was no problem building a new submarine facility in Devonport when there was an already perfect one in Edinburgh

- Another stakeholder stated that politics is too involved in the process
- Stakeholders wanted to know how long the materials are going to be stored in Rosyth before being moved to a storage facility. It was asked if there is a possibility that the 7 RPV's will be in Rosyth at any one time
- There was a concern about the handling of the MOD budget
- A stakeholder stated that the option to keep the RPV intact for GDF seems a sensible option as it will reduce risk. The stakeholder wanted to know if the MOD have highlighted the environmental benefits of making the GDF bigger to cope with RPV
- A stakeholder stated that they would be less worried about the SDP if it was decided that the RPV was not cut up, especially if the cutting up was done just to follow standard procedure
- It was asked if the MOD have the reassurance that the GDF money is ring-fenced. It is a critical part of the projects time line that the GDF is in place
- It was stated that the interim storage option is dependent on the GDF, and there is a possibility that the interim could last for a very long time
- One stakeholder wanted to know if the submarines will always be ran on uranium
- It was asked if the views of the Scottish government would be taken into account
- One stakeholder stated they believe there is a moral imperative that Rosyth takes the waste. The stakeholder added that beyond the 7 submarines Rosyth should not take any more submarine ILW
- It was added *'why can't the MOD combine with commercial facilities for storage'*
- A stakeholder added that they are disturbed by the secrecy surrounding the nuclear industry. The stakeholder would like more transparency

F.4. 20 Nov 11 – 11:30 Workshop

F.4.1. Recorded by Alan Ryall, Alice James, Carol Jackson-Doerge

Lt Cdr Chris Hall, Simon Tinling, Nigel Parsons

Attendees – 3

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

- A stakeholder wanted to know how much the SDP will cost. The stakeholder also wanted to know if the cost figure includes the disposal not just the dismantling
- The stakeholder stated that they do not want the storage to happen at Rosyth. The stakeholder added that they are totally against the *'whole thing'*
- The stakeholder suggested that the low turnout of stakeholders may be due to people not knowing that the consultation is going on. The stakeholder only found out about the consultation through the SEPA website, they had difficulty finding out about the consultation through any other channels. Stakeholder stated that the consultation was not listed on the Carnegie Conference Centres events list
- Other stakeholders in the room found out about the consultation through the mailshot
- The stakeholder wanted to know who is in charge of PR for the consultation
- The stakeholder wanted to know if the mail out area is the extent of the danger zone

- Two stakeholders stated that keeping the RPV whole seems to be the most sensible option. They added that not cutting up the RPV means you are not introducing toxins.
- A stakeholder added that as a solid lump of metal they do not see the issue of storing the RPV whole
- Another stakeholder stated that they do not have a problem with the 'how' as submarines have been dismantled before elsewhere in the world
- A stakeholder stated that they partially agree with the MOD's proposals for 'where'. The stakeholder felt that Rosyth had been '*done over*' when Devonport won the submarine refits. The stakeholder added that historically the Rosyth area has done a lot for the navy so why should we get the payoff of jobs from that. As long as it is safe then the stakeholder does not see why Rosyth cannot benefit from jobs as well as Devonport. It was added that they would like the option to do more, due to the job creation
- Another stakeholder wanted to know why the SDP cannot be carried out far from areas of human population, is it due to cost why it cannot be done somewhere else. The stakeholder stated that it should not be located in an area of Scotland with a large population
- A stakeholder stated that they understood what the other stakeholder is saying but is bordering on nimbyism. The stakeholder added that we are never far away from people in the UK
- A stakeholder stated that environmental impacts have never bothered the MOD before. Rosyth dockyard had an environment impact but that didn't stop the MOD
- The stakeholder wanted to know what levels and types of radiation will be involved in SDP
- They wanted to know if there is Alpha radiation in the RPV
- The stakeholder was sceptical about the length of storage time and its safety. They stated that as a civilisation do you think we will be around to see the end of radiation emissions from the RPV's
- It was stated that we are faced with a Hobbesian choice
- American storage and disposal was discussed and the containers that they use last for 600 years. The stakeholder added that any proposal for GDF would deal with burying waste within our country's borders
- The stakeholder felt that the 2040 date for GDF is just an ambition
- A stakeholder stated that interim storage should not be in Rosyth
- Another stakeholder stated that as long as it is properly shielded there is no reason why the nuclear waste would be any more dangerous than when it is on the submarines. The stakeholder is more concerned about ILW transportation
- The stakeholder stated that they prefer the MOD proposed option as it would eliminate the need for transportation around the country
- A stakeholder stated that you cannot dis-invent what is already there it just needs to be kept safe. The stakeholder added that when discussing just the submarines then they agree with the MOD preferred option of RPV whole and storage
- It was stated that the defueling process will not relocate unless it is more cost effective to have defueling at Rosyth. Currently we do not have to worry about the fuel
- It was added that they would prefer nuclear waste to not be moved around

- Other stakeholder agreed but added that the submarines must have been moved here in the first place. nuclear waste is already moved in the UK so it shouldn't be a problem for the SDP
- The stakeholder added that the more you move the waste the more risk involved. It was stated that they understand necessity to move nuclear fuel waste but the stakeholder does not understand the need to move a solid lump of metal, so why shouldn't it stay in Rosyth
- A stakeholder added why delay transportation out of Rosyth if it is going to have to move to a final disposal facility anyway
- A stakeholder discussed the MOD's environmental responsibility and sustainable reasoning. They added why a substance that is going to be dangerous for thousands of years is ever going to be sustainable or environmentally responsible
- The stakeholder stated that the only option for GDF is the granite rock of Scotland. They added that if Scotland became devolved then there would be no suitable location for GDF
- It was stated that as there is no final disposal solution Rosyth may end up as the interim storage site for a hundred years
- A stakeholder wanted to know where the proposed NDA storage sites are. It was stated that the NDA site seems the logical option if they already have the facilities to deal with nuclear waste
- Stakeholders wanted to know if existing storage sites are dealing with packaged waste
- It was asked whether the UK are still building new submarines. The stakeholder was concerned that we are building more submarines without a final solution for the nuclear waste
- A stakeholder stated that the dismantling is not a problem, storage is the problem. Another stakeholder agreed with the long term point being made but he is focused on the current submarines and how they are dealt with
- A stakeholder wanted to know what relevant lessons have been learnt from the American dismantling and storage programme
- Two stakeholder stated that the rationale used by the MOD does make sense, but that does not include their sentiments towards the long term problems
- Other stakeholder stated that nuclear submarines cannot be dis-invented but there is a concern about interim surface storage in Rosyth before the GDF becomes available. The stakeholder would like the ILW to be removed from areas of human population. The stakeholders reasoning is that the waste will have to be moved eventually anyway
- It was suggested that a submarine could be used as a tourist attraction in Rosyth, Portsmouth was used as an example. It was stated that this would be a means of generating money and giving something back to Rosyth after its years as a naval base

F.5. 20 Nov 11 – 13:00 Workshop

F.5.1. Recorded by Terry Ryall, Alice James, Carol Jackson-Doerge

Mike Cushen, Alisdair Stirling, Lt Cdr Phil Northcott, Andrew Johnson, Nigel Parsons, Paul Dorfman – advisory group

Attendees – 2

1. [REDACTED]
2. [REDACTED]

- It was questioned whether other RPV's, for example Vulcan, are involved in the scope of the project
- One stakeholder felt that the SDP description of whole process was adequate and well thought through. it was added that they were more than happy to hear how the project is going forward
- The stakeholders wanted to know if the option of taking the RPV out whole would result in them being stored locally. It was felt that one of the MOD's problems is the volume not weight of the waste. The stakeholder wanted to know where the volume would be reduced. It was asked if the MOD have looked at other methods to reduce the volume such as melting
- The stakeholder wanted to know if the process used for LLW melting could be used in the future for ILW
- It was asked if the proposals will allow for change and new technology developments
- A stakeholder stated that the ILW should be stored where it is created. It was added that that idea brings into question where was the waste generated. Is waste generation counted as where the cutting up takes place or where the submarine is used
- It was asked if moving the RC around the country is feasible
- A stakeholder stated that they can see the advantages of using the dual site. They wanted to know if the sites would be run by the same to ensure the same development process is used
- The stakeholder wanted to know if there would be employment opportunities created by the SDP. When given the figure of 50-100 jobs the stakeholder stated that is still a good amount
- One stakeholder stated that they personally do not want the ILW stored in Rosyth but they understand the rationale behind the proposals
- Another stakeholder added that nuclear is an emotive subject, but they personally do not have a problem with the proposals
- The stakeholder stated that it is good to have the opportunity to have a say whatever your position
- A stakeholder wanted clarification that the waste is solid and no cooling water is involved in the process. The stakeholder also wanted clarification that there would be no liquid produced during the dismantling
- It was felt that Scottish independence may be an issue for the project as they may refuse the SDP being located in Scotland
- A stakeholder stated that everything that has been put forward is adequate; however, if there is a referendum the project would be disrupted. The stakeholder added that the project needs to start soon
- It was stated that the stakeholder found it disconcerting why is it not already government policy that the MOD's 0.2% is stored in a NDA site anyway
- The stakeholder wanted to know the approximate cost of the project
- It was questioned whether the design authority for the RPV are involved in the project
- A stakeholder felt that the rationale does make sense. It was stated that the seven submarines are just sitting there and a process need to be put in place. The stakeholder added that thought has been put into the proposals

- One stakeholder wanted to know where is the cost rationale of not including the Vulcan RPV in the project

F.6. 20 Nov 11 - 15:00 Workshop

Recorded by Alan Ryall, Alice James

Nigel Parsons, Alisdair Stirling, Lt Cdr Chris Hall, Les Netherton (advisory group)

Attendees – 1

1. [REDACTED]

- The stakeholder would like to know how the submarines are defueled in the first place. The stakeholder stated that the danger involved in the SDP is actually quite manageable it is the defueling that is far more dangerous
- It was asked if it makes more sense to store it as a whole rather than cutting it up
- The stakeholder wanted to know what is the decay life on the nuclear waste
- The stakeholder stated that their concerns and questions are more focused on defueling and the storage long term
- It was stated that the consolidation of waste in an existing facility seems a fantastic idea
- It was added that the level of radiation in submarines is a lot less than the stakeholder originally thought
- The stakeholder stated that it is a positive thing that the consultation is happening in Rosyth
- It was stated that there is a lot of public ignorance about the subject. It was added that there is a lot of misinformation surrounding nuclear when trying to find information
- It was added that there are a lot of unknowns for the MOD and the public in the consultation
- The stakeholder stated that they previously questioned the rationale behind delaying the cutting up of the ILW, but after attending the consultation and having their questions answered they understand the MOD rationale
- It was stated that their main issue is with the RPV, but pre and post that their position is still unknown

F.7. 20 Nov 11 - 16:30 Workshop

Recorded by Alan Ryall, Alice James, Carol Jackson-Doerge

Lt Cdr Chris Hall, Simon Tinling, Chris Hargraves, Les Netherton – Advisory group

Attendees – 3

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

- Two stakeholders stated that they did not have that much knowledge on the subject but were here to get some more information. A stakeholder wanted to know if there would be more consultation
- A stakeholder wanted to know if anyone can register for the national workshops and whether it would be a different process from the workshop today
- A stakeholder stated that they would rather the SDP was based in Devonport. They would prefer that something dangerous was not located where they live, whatever the guarantees of safety
- They wanted to know if there was any possibility of leakage with the degrading submarines
- It was asked how long does it take to dismantle the submarine, and will the submarines be dismantled one at a time
- The stakeholder was concerned about the safety of LLW and how it is contained
- A stakeholder wanted to know where the ILW would be kept at Rosyth and how it would be stored
- A stakeholder stated that they would prefer the waste not to be stored at Rosyth. They added that they wouldn't mind if it was stored at a NDA site. The stakeholder was concerned about the transportation and that it could be transported by sea
- A stakeholder stated why would the MOD build a new facility for 0.2% when there are existing remote facilities
- One stakeholder stated that they would prefer dismantling to take place in Rosyth. The stakeholder highlighted an interest in being part of the SDP. The stakeholder wanted to maximise employment opportunities in Rosyth. The stakeholder added that the seven submarines should be dismantled here, not Devonport
- A stakeholder asked what type of waste does Rosyth dockyard already store, what do you mean by refitting and how much waste is already at Rosyth
- The stakeholder wanted to know if the waste from the submarine would increase the current storage facilities at Rosyth
- Two stakeholders felt that the subject is too complex to understand without a nuclear background
- They wanted to know if the cost of the options have an impact on the final choice. The stakeholder wanted to know if the MOD had an unlimited amount of money would the proposals be different. They wanted to know the difference in prices between the different options
- A stakeholder wanted to know if the MOD had learnt from Russia and America and their process
- The stakeholder wanted to know why there is a proposal to cut the RPV up if America does not do this
- A stakeholder wanted to know how the RPV would be cut up

F.8. 21 Nov 11 - 11:30 Workshop

Recorded by Alan Ryall, Alice James

Lt Cdr Chris Hall, Colin King, Nigel Parsons, Sue Jordan, Sally May, Mike Cushen

Attendees – 5

1. ■■■ ■■■

2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]

- It was stated by one stakeholder that they do not agree with the cutting out the RC as it is going to take up a lot of space
- Another stakeholder disagreed with the above sentiment about volume and that it is fine to cut it out either side of the bulkhead
- One stakeholder stated that they think the proposal makes sense and that is with limited knowledge on the subject
- A stakeholder stated that they do not see any difficulty in moving the submarine as it can be put on a barge
- The stakeholder stated that Devonport has a large population density and as such suspected that the MOD would experience a lot opposition in Devonport
- It was stated that if there is no safety issue why cannot people be persuaded
- After discussion and Q&A there was a consensus around table in agreement with the proposal for 'how'
- One stakeholder stated that the proposal makes sense as it will reduce the complexities and costs of transportation
- The stakeholder stated that they are not concerned by the proposals as the MOD have the staff at the dockyards who are experienced with refits and know how to handle the material
- A stakeholder wanted clarification that there is a policy that nuclear waste should be dealt with in the country it is generated
- It was stated that the mode of transportation and the cost of transportation makes the dual site a sensible option
- The stakeholder wanted to know if the ILW would be stored at Drigg
- A stakeholder queried the real estate requirements that would be needed for the existing number of submarines at Rosyth. The stakeholder wanted clarification that there would be no storage at Rosyth. They wanted to know if there was a possibility that the waste could be stored for 35 years before the GDF
- A stakeholder stated that transport and safety are their only concerns and would therefore be concerned about moving the waste to a different site. They added that a piece of metal should not be a threat
- It was stated that the ILW has to be stored '*pretty indefinitely*' because of its half life
- One stakeholder queried, if the ILW is just metal, does it have to be buried
- A stakeholder stated that the MOD would need a lot of land for the interim storage
- One stakeholder stated that they found Sellafield very impressive, and their personal view on nuclear has changed over time
- A stakeholder stated that their main issue is with space requirement
- Another stakeholder felt that it is possible for the submarine to be moved
- It was stated that the lack of knowledge on the subject in the area will play a significant part in way people react to nuclear waste
- A stakeholder felt that there is complacency among the public. They used the example that their neighbours did not realise that they could 'just turn up.' They added that people cannot be bothered to travel to consultations

- The group were asked how awareness could be raised. It was suggested that the local press should be contacted. A stakeholder was surprised at the lack of coverage in the local press considering the amount of coverage the Forth Bridge has had
- The group wanted to know if the meeting in Rosyth will be a similar set up to the one today
- A stakeholder wanted to know if the MOD have had a different reaction in Rosyth compared to Plymouth
- The stakeholder also questioned whether there has been a reaction from the Scottish government. The stakeholder stated that it is 'disgusting' that there hasn't been a formal response from Scottish government yet
- A stakeholder felt the consultation should be a 'whole' not just local residents but political representatives as well
- It was asked whether the tender for ship breaking would be for UK based companies. The stakeholder saw this as a positive as it will create jobs
- A stakeholder discussed a point that was made during the presentation that there is a lack of space for the submarines, particularly in Devonport. They wanted to know if there is a proposal to have more than seven submarines in Rosyth. The stakeholder suggested that it could be a possibility that no interim storage is needed in Rosyth and they could postpone dismantling until the GDF is available. The stakeholder suggested that the MOD could leave the seven submarines in Rosyth for the next 30 years as Rosyth does not have the space issue that Devonport has
- A stakeholder wanted to know if there are still movements of radioactive materials from Rosyth. The stakeholder had concerns over security at the Rosyth dockyard
- One stakeholder didn't think there would be a security issue as the RPV is just a lump of metal
- However, one stakeholder had concerns that the price of scrap metal will make the metal more exposed to theft
- One stakeholder stated the rationale behind the proposals makes sense after attending the consultation. The stakeholder added that a lot of the fear had been eliminated through the consultation
- A stakeholder reiterated that they felt it was safe enough to transport the waste by road. Another said it was so safe they felt all the work could be brought to Rosyth from Devonport
- The group wanted to know when the decision will be published, and will it be in the press

F.9. 14 Nov 11 - 13:00 Workshop

Recorded by Alan Ryall, Alice James, Carol Jackson-Doerge

Nigel Parsons, Chris Hargraves, Colin King

Attendees – 1

1. ■■■■■

- The stakeholder stated that their first suggestion for the consultation would be that team do not wear grey suits as it can be intimidating for attendees
- The stakeholder asked a number of questions, listed below;

- If the dismantling took place in Rosyth would the MOD need a new facility due to the dockyard being decommissioned
- When are the operational submarines going to leave service?
- Is the UK still building submarines?
- Is the LLW sent off site to Cumbria?
- Can the smelting be carried out in the UK?
- Do we already have interim storage at Rosyth dockyard
- Could the ship breaking go abroad
- How mobile is the submarine if the RC is cut out
- What is the difference between the second and third option
- Have the UK moved RPV's before
- The stakeholder lives close to the dockyard and stated they are '*heavily interested*' in the activities of the dockyard
- Stakeholder stated that the proposal to build a container terminal at Rosyth dockyard will not create '*proper jobs*'
- It was added that it would be 'unfair' if Rosyth gets 7 submarines and Devonport dismantles future decommissioned submarines. The stakeholder stated that Rosyth needs the long term jobs that the SDP will create. The stakeholder felt that the skill base will be wasted after the 7 submarines are dismantled
- It was stated that the number of jobs created would be significant in Rosyth, particularly the development and skills that would be part of the SDP
- The stakeholder has no confidence in Babcock. There is a particular issue with the lack of community consultation between Babcock and local residents
- It was added if the dismantling was conducted by a different company then they would have more confidence in the process, but felt Babcock is the MOD's only choice
- The stakeholder was very appreciative towards the consultation, and stated that the community council might be interested in the national workshops
- The stakeholder is on the CORUM distribution list. They added that they couldn't imagine a final solution ever being reached
- The stakeholder stated that they do not have the same fear of nuclear as other people have. With proper safety residents should not have nuclear fears that they normally have
- It was added that the proposals have been a long time coming so they cannot question that all options have not been explored
- The stakeholder was interested by the railway used by Babcock at the dockyard. They wanted to know how much nuclear waste gets carried in and out of Rosyth at the moment

F.10. 21 Nov 11 - 15:00 Workshop

Recorded by Stephen Duncan, Alice James, Carol Jackson-Doerge

Nigel Parsons, Lt Cdr Chris Hall, Colin King

Attendees – 1

1. [REDACTED]

- A Stakeholder stated that there is so much misinformation about nuclear, so they wanted to come to the consultation to find out a bit more
- The stakeholder asked a number of questions, listed below;
- Are all the submarines defueled at Devonport, and all submarines coming out of service have to be defueled at Devonport
- What criteria do the MOD use for ILW and LLW
- Is the GDF not available until 2040
- What are the advantages of cutting it up first
- What would the argument be for not leaving it whole? The stakeholder wanted to know why cutting the RPV up early is even an option if there are no advantages to cutting it up early
- Is there a problem with shielding the RPV as a whole compared to the other options
- Are the dosage levels relatively low
- Is it reasonably easy to shield the radiation emitted from the RPV
- What do the workers at Rosyth dockyard think about the SDP
- Could there be a ship breaking facility at Rosyth
- When is SDP programmed to start
- When are the carriers at Rosyth finished
- When does the GDF decision look likely to happen
- When would the NDA storage option decision be made
- The stakeholder stated that it seems there is no scientific reason for not storing the RPV as a whole, it is just an emotive subject
- The stakeholder stated that it seems sensible to store the nuclear waste collectively with civil waste
- It was added that the stakeholder does not see the point of taking the submarines from Devonport, if they are defueled there, to Rosyth to be dismantled and vice versa
- The stakeholder is supportive of job creation in Rosyth
- The stakeholder pointed out that dismantling will stop in Rosyth after the 7 submarines, but will be continuous in Devonport
- It was stated that the SDP would sustain work in Rosyth and it would be politically insensitive to take work away. Rosyth have 'put up' with the submarines for so long it would be wrong to take work away. Rosyth has always been an important facility and anything that retains employment is important
- It was added that dismantling all the submarines at Rosyth would be placating Devonport, but on the other hand the 7 submarines at Rosyth should not be taken to Devonport
- The stakeholder stated that it would not be logical to pay for a new storage facility if one already exists
- It was queried whether the MOD have the budget ring-fenced for the project
- The stakeholder stated that it seems to have everything in hand, and they support the proposals to keep it whole, store with NDA, but keep the work in Rosyth
- It was added that the MOD needs to reassure the public that terrorists couldn't use the RPV for a 'dirty bomb.' LLW and ILW terminology does not mean anything to the general public
-

F.11. 21 Nov 11 – 18:00 Workshop

Recorded by Alan Ryall, Alice James, Carol Jackson Doerge

Lt Cdr Chris Hall, Mike Cushen, Simon Tinling, Sue Jordan

Attendees – 5

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]

- A stakeholder wanted to know what the advantage is of cutting the whole section out, why wouldn't the MOD just cut a hole and take the RPV out
- The stakeholder questioned whether there is a possibility that the RPV could be stored at Rosyth for a period? It was suggested that it would be safer to take the RPV away from Rosyth and store it in a remote location away from people
- Will people outside of Rosyth make the storage decision
- A stakeholder felt that although they had been given three options, option one has already been ruled out as you cannot transport submarines without the middle section
- It was added that the 7 submarines should be moved as a whole to Devonport. The stakeholder suggested that the it would be cheaper to build one facility
- Another stakeholder wanted to know if it was an option to move all submarines to Rosyth. They wanted to know the risk with dismantling compared to the defueling process
- It was suggested that nuclear fuel has been stored at Rosyth before, and the SDP will take Rosyth back to square one by bringing radioactivity back to Rosyth
- Stakeholders wanted to know what is the worst case scenario
- Would the metal create nuclear water if rain fell on it, could it cause contamination
- What types of radiation are we talking about?
- Would your design basis for storage be based on Gamma radiation
- How long will the different options take?
- Will the 10 operational submarines go to Devonport or would the MOD say '*Rosyth is finished, they can go up there.*' The stakeholder doesn't trust that the defueling will not happen at Rosyth and the 10 operational submarines will end up in Rosyth
- It was stated that the stakeholder thinks the final decision on 'where' will not come down to local residents choice. However the stakeholders preference would be for Rosyth to do the 7 for the employment opportunities
- Another stakeholder agrees with above statement but would not want the other submarines from Devonport to be dismantled at Rosyth. The stakeholder would not want there to be pressure for Rosyth to take the Devonport submarines
- A stakeholder wanted to know if the MOD would be tempted to store other types of nuclear waste at Rosyth if it was the site of the interim storage
- A stakeholder wanted clarification that the dismantling would stop at Rosyth after the 7 submarines. The stakeholder felt that the proposals will change over time as the consultation is too early. It was stated that the stakeholder thought the MOD would have all its '*ducks in a row*' before the consultation
- There is a group consensus that they would prefer the ILW to be stored out of Rosyth

- Would the MOD or Babcock run the storage facility? Would the site be licenced to store a certain amount of nuclear waste
- Two stakeholders stated that MOD generated waste should be stored on a MOD remote site
- A stakeholder stated that there isn't a good feeling surrounding the MOD among the people of Fife due to the Dalgety Bay problem. The stakeholder suggested that the MOD should sort out Dalgety Bay and it would improve the perception of the MOD
- Stakeholder wanted to know how the waste would be cut up, stakeholder was concerned about the metal filings that would be created
- When discussing different worst case scenarios, a stakeholder felt that it is not fair to say '*it is not a credible scenario*' when using the example of the metal falling in to the sea
- Stakeholders were concerned about contamination and leaks from the metal
- A stakeholder wanted to know if there would be any risk to people outside of the dockyard if the ILW is stored at the dockyard. They added that people need to know the context of the risk of the ILW so they can realise there is not a huge risk to the people of Fife
- It was suggested that a pictorial tool would be useful to explain the risk of ILW. The stakeholder uses the example of a radius around the dockyard to explain the levels of safety
- A stakeholder wanted to know if there is any other ILW or hazardous waste in the submarine, and if the MOD have carried out the dismantling before
- If the submarines have been afloat for 30 years why would they still be classified and unable to be dismantled abroad
- It was suggested that the MOD offer workshop attendees a visit on the submarine to put everything into context
- There was consensus that the rationale makes sense. However, one stakeholder added that parts of the proposals are '*shifting sands*' but the rationale makes sense for now

G. Workshops - Saltash

G.1. 03 Dec 11 - 11:30 Workshop

Recorded by Ed Grieve and Carol Jackson-Doerge

MOD attendees: Simon Tinling, Alasdair Stirling, Lt Cdr Chris Hall, Mike Cushen, Nigel Parsons

Environment Agency: Paul Naylor

Attendees – 16

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]
13. [REDACTED]

Comments/ Points:

- I don't know what levels of waste equate to...
- If you don't chop up the reactors, I'm presuming the storage area will have to be much bigger.
- My main concern is that my health and my family's health is not damaged during this process.
- The French/ Russians and Americans have a space advantage; in Britain decommissioning must happen in populated areas.
- Interim Storage Solution (ISS). The interim will worry people.
- If it's taken out whole the reactor can be taken out and stored until a long term solution is found. This needs to be made clear to people.
- I believe the MOD must have a good idea of where they will store the ILW.
- It's amazing that no one has thought that we need a solution until now. Why wasn't this decided when they built these vessels. It's horse before cart. You should not be in this position now.
- Our nuclear record, as a country, is very good. Personally I am happy for this to go ahead. As for where it's done, people from Saltash have lived and worked with ships all their lives. We have to do our dirty washing. I'm happy for it to be done at Devonport, but the community must benefit. I would like the port to not just be a submarine graveyard. I would like to see ships there. If I could bargain with the MoD I would ask for ships to be brought there.
- Scotland is heading from devolution. They don't want nuclear work.

- If Scotland is happy to take the safety submarines provide, it should be happy to decommission the submarines.
- I would like to see it done in Scotland.
- I would like to see it done in Devonport.
- It makes sense to keep the RC/ RPV unit in one piece at present.
- I think your first priority is to solve the long term storage issue first! You can have it on paper, but the solution must be completed.
- These things get talked about for years and years, but don't happen.

Questions Raised:

- What was the original plan when they built the submarines?
- Are these the first submarines to be dismantled?
- Is there any high level waste?
- What is close to intermediate level waste (ILW)?
- Can you be 20 feet away from ILW?
- Where will it be stored when it goes to the Geological Disposal Facility (GDF)?
- So it's a safer option leaving it intact?
- Is this what the Americans do?
- Could you use the Outback in Australia to store the reactors?
- If you kept the reactor pressure vessel whole would you need more shielding?
- What is the trigger point for a storage solution?
- Surely you need to find the storage solution before you dismantle the submarines?
- Do we have suitable storage areas near to the two dockyards in question? The answer must be yes.
- Why is Saltash involved?
- So we won't get Iodine (PIT) tablets?
- I'm presuming you're here because the risk has increased?
- I'm presuming the sites you are looking at will safeguard the design of the submarines?
- So the consultation area was not defined by risk?
- Is the consultation going to include Sellafield/ Cumbria?
- What is the planned date for this to be finalised?
- Would you build a storage facility before you started dismantling?
- How long would it take to remove the reactor?
- So there are 27 submarines at the moment?
- Why wouldn't you look to create facilities that would be able to dismantle Astute Class submarines as well?
- How would you summarise the benefit that the community would get from taking on this project?
- Are these boats going to be completely dismantled at Devonport?
- Why now? Is it because of the economic climate and the value of metals?
- Given the economic situation will you do this on a cheaper budget?
- Who monitors the safety processes?
- Will someone be monitoring this work on a daily basis?
- Would you like to comment on the low level radiation leaks which have occurred at Devonport over recent years?

- Is the bottom line value for money? Will a decision be made on a value for money basis?
- Has Scotland's impending devolution been considered?
- Where are the submarines based? Where do they operate out of?

Consensus:

- Generally as members of the public we are not qualified to answer how this should be done.
- I would like to see all the submarines decommissioned at Devonport. It makes sense to do it in these dockyards.
- We are reassured by what's gone on today. We appreciate your expert opinion and how you have put this across.
- We understand what has been explained today.

Feedback on Consultation:

- Can we have assurance that our opinions are being taken on board and this consultation is genuine?
- You could be clearer on the possibility to have interim storage facility at these dockyards.

G.2. 03 Dec 11 - 18:00 Workshop

Recorded by Ed Grieve and Carol Jackson-Doerge

MOD attendees: Nigel Parsons

Attendees – 1

1. ■■■■■■■■■■

Comments/ Points:

- Ten in Devonport already... They'll be lined up in the Tamar!
- It's such a shame to just store a classical vessel. I imagine it's a nightmare down there (Devonport).
- If it goes to Cumbria it will just concentrate the waste.
- I don't want the submarines ending up on a third world beach.
- A very different scale to nuclear power stations.
- The dockyard just got rid of its lovely big crane.
- I'm concerned that you're going to go through another change of Government.
- Leaving it on site is not cheaper.
- Ministries are not often joined up.
- It would be great to drop them in the mid-Atlantic Ridge. I get frustrated because this is a natural disposal procedure.
- I would like the options that are safest to the workers.
- When this was first mooted people were worried about a lot.
- I would be keener on the method that sees the whole reactor removed in one piece.

- I'm not scared of the radioactivity. Our technology is good enough to keep us safe. What is sad is to see rusting hulks in Devonport. It's not good for the moral of a city which is already struggling.
- The dockyard and the MOD are major employers in the area. It's good to see the dock working and the MOD working to keep people safe. As a citywide issue, I think that has more to do with it.
- I have no issue at all with this happening in Devonport. I frankly think the less we move them the better. Not only is it very expensive, but also, in today's economic climate if people want to work on this project ...
- Men and women also need jobs in Scotland.
- It's very promising that there may not be redundancies in the future.
- Nuclear power stations... What's the problem with buddying up with the North Devon Station?
- This is a problem that I can see as needing to be addressed very promptly.
- I think that the work should be spread around if the cost is right.
- I'm always nervous about long term projects as Government's often don't see things through.
- I don't know what site to suggest, your hands are tied.
- I cannot decide from the range of site options.
- For Plymouth and Scotland to have the waste storage so close is not possible.
- A lot of the kids I teach have fathers who work on submarines.
- This doesn't worry me I just know it has to happen and I want it to happen as well as possible for city pride. It would be nice to see us coping with this problem as well and as cleanly as possible. I would like to see this done at both dockyards – split the work.
- Fuel tanks still go well down into the ground.
- I cannot see the national store coming on tap in time for this project.
- You can't have an efficient production line.
- If you are to find the space in Plymouth it's a practical problem of actual space.
- I don't think you have all the information you need available to you yet.
- Forgive me for saying so, but hopefully you won't be in your job in 20 years' time.
- I'm stunned at the size of the challenge.
- If only this had been done ten years ago.
- Consulting with the public is never a robust process because the public are so ignorant of the challenges you face. It's nice that you have come out to speak to us. I think it's very brave and about time too. It gives me more faith in the robustness of the process. I feel the problem is in safe hands even if it takes a lifetime to complete. We are talking about lifetimes beyond ours.
- I would like to feel that our generation sets a precedent for how to deal with this problem.

Questions Raised:

- Where will the reactor be removed?
- Will you address reusability?
- It's the centre section that's removed?
- Mostly lead (the submarine)?
- So the reactor is like a piece of Lego which can be taken out?

- So you might take the reactor by rail?
- Is the Geological Disposal Facility going to be in the salt fields?
- Would we end up with submarine carcasses floating in Devonport?
- How reusable is the steel hull?
- Can't you send the submarines to Japan?
- When you remove the centre section does the hull remain competent enough to stay afloat?
- The whole container vessel didn't go into the box did it?
- Can I ask what you mean by 'move'? How would movement occur?
- We would keep the submarines we have at Devonport now, but there's none in Scotland?
- So the tugs don't belong to the MOD?
- So you're having the same consultation process in Scotland?
- When are you looking to take a decision on this?
- You're looking for a place to put this waste temporarily whilst a long term solution is found?
- What is the radioactive half-life?
- No uranium left?
- Why can't we store it in one of the MOD's own sites?
- Are you going to look at the safety of the workers and the contamination of the Tamar?
- What is the benefit of cutting the reactor up?
- Are the reactors manipulated by fork trucks underground?
- So there would be 27 bins covering about one and a half football pitches?
- Would they charge per square metre?
- The geological store will be run by the Government, what would the MOD pay for?
- What point in the future do you face cutting this up?
- What if none of this comes to fruition?
- What happens if this isn't sorted?
- You're in favour of the NDA, aren't you?
- There is not enough storage near Devonport, is there?
- Despite areas having nuclear waste on the doorstep there still has to be consultation?
- Do the MOD still own South Yard?
- If the worst comes to the worst, where in the local area would the submarines go?
- It could be 20 years of work in Devonport?

G.3. 04 Dec 11 – 11:30 Workshop

Recorded by Ed Grieve and Carol Jackson-Doerge

MOD attendees: Nigel Parsons, Lt Cdr Chris Hall, Chris Hargraves, Sally May, Mike Cushen, Dr Sue Jordan,

Environment Agency: Gary McMeekan

Attendees – 6

1. ■■■ ■■■

2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]

G.3.1. Comments/ Points:

- It seems to make sense for the pressure vessel to be removed and left intact. You are doing yourself a favour by waiting.
- Someone commented that the store will only be designed to last for 100 years. That doesn't seem long enough.
- If you take out the whole of the RC you are giving yourself a problem with the second step.
- Doing it in a populated area might cause you problems. I think that it should all be done in one area as the knowledge will all be concentrated in one area.
- I see great issues towing the submarines between docks. As a submariner of 40 years I guarantee we'll lose one on the way.
- The dockyard has always been a big thing in the community. As long as it's safe I would be happy for it to be done in Devonport.
- I know what care is taken on the nuclear submarine as I served on one. I cannot fault the existing safety measures. I've got no concerns whatsoever.
- I'm more confident knowing that people who have worked on submarines are looking at this.
- The preference has got to be to store it in one place, with the waste from the rest of the nuclear industry. It's common sense.
- At the moment we have a number of boats in Devonport with reactor vessels inside, stored afloat. For me it makes sense for these to be stored on land as it would be safer.

Questions Raised:

- How many submarines can you store in Devonport?
- You say that Dreadnaught's been stored for 30 years. Considering the half-life of the radiation, presumably the nuclear radiation level has gone down considerably. What comparison can be made with submarines that are just coming out of service?
- Presumably you would decommission the oldest submarine first?
- How do you measure the level of the radiation as it reduces?
- How do you measure radiation in within a sealed unit?
- How do you get samples of radiation from the reactors?
- So you have already cut into a reactor on a submarine in Devonport?
- Can I ask about the Geological Disposal Facility (GDF)? Why is it going to be built so far into the future?
- How can you work under the Government system we have? Plans change; we could have a change of Government which would alter plans.
- What storage time are we talking for the RPV?
- How long will the GDF be able to hold waste?
- Is it true to say that if you remove the RPV and the SG's you would be able to recycle the rest?
- How long does the process of removing the pressure vessel take?
- Do you have a workforce which is capable of doing this?

- You've narrowed it down quickly to two locations. The United States, Russian and France do this. Where do they do this?
- Is this more risky than what you are already doing in the dockyard?
- What sort of building does the pressure vessel need to be stored in?
- Would you need a concrete or metal package to move it in?
- Where is the nearest storage site?
- How would you move the waste to the nearest storage facility?
- If some work is done in Scotland and some is done in Devonport, would the waste be stored in different places?
- You haven't built the interim storage facility yet?
- Have you had any negative feedback or objections during your consultation?
- When the consultation process is finished who makes the final decisions?
- Will the older boat come first?
- So which boat did you take the samples from? Is that one of the older ones?
- How many people attended the exhibition yesterday?
- Why is this process starting now if the submarines have been out of service for so long?

G.4. 04 Dec 11 – 16:30 Workshop

Recorded by Ed Grieve and Carol Jackson-Doerge

MOD attendees: Nigel Parsons, Simon Tinling, Sally May

Attendees – 2

1. [REDACTED]
2. [REDACTED]

Comments/ Points:

- I believe that scientists work in the public's best interest to sort out problems with nuclear waste.
- I think it would be daft to move the submarines around (they should be dismantled where they are).
- It's been 30 years, get on with it.
- As far as I'm concerned it's a no brainer to keep the reactor in one piece.
- You have to learn as much as you can from the first submarine.
- I know the MOD has a good safety record. I think it's a case of maintaining public confidence by keeping people informed throughout. People must be convinced that what you are doing is being done as safely as possible.
- Older people who don't use websites will need to be reassured.
- You need to be talking to the councils (all councils in Cornwall, Plymouth and Devon). Communicating through them and through health staff is important.
- Removing the RPV will be a fully risk assessed activity.
- I'm collating Cornwall Council's response to this. I have to be careful, but it's a no brainer to dismantle the submarines where they are.
- Let's keep it as a 60 tonne piece of metal. Let's not cut it up.

- I have to be careful as I work with members of the public on a day-to-day basis, but what frightens me is the low level knowledge that people have in general (in the dockyard and other). A proportion of the population has no analytical skills and won't get past the one word 'nuclear'.
- I am duty bound to act as a conduit for what people think even if I do not believe in it myself. I will be duty bound to transmit people's concern about this.
- I know the Localism (at Cornwall Council) managers have been brought into this consultation.
- It's not apathy; we are living in the information overload age. Unless people are interested, they'll miss it.
- (Dismantling in Devonport and storing whole) It does, from your consultation, sound like the best option.

Questions Raised:

- If we cut up the RPV, by what percentage is the waste reduced?
- What do the French do?
- When are you going to start the process?
- Assuming your proposals to dismantle at both sites go ahead, have you any plan as to where the demonstration submarine will be dismantled?

Feedback on Consultation:

- Me, I think that this is an amazing consultation.
- I think it has been a very thorough process. If large numbers of people have not taken up the opportunity and they moan in two or three years' time then 'I'm sorry, you missed out'...

H. Workshops - Torpoint

H.1. 07 Dec 11 - 11:30 Workshop

Recorded by Ed Grieve and Siobhan Lavelle

MOD: Nigel Parsons, Mike Cushen, Paul Naylor (EA Rep), Lt Cdr Peter Brown, Simon Tinling

Attendees – 10

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]

Comments/ Points:

- The way in which the reactor is removed is best left to the experts.
- It seems to me that you shouldn't store the waste near 250,000 people. However safe you feel it is.
- This material is steel and of no value to terrorists.
- I think that an accident, by its nature, can never be predicted. So considering keeping the RPV near people seems like an option that shouldn't be on the table.
- If you are only generating 0.2% of the country's waste it makes sense to store the waste at an NDA site.
- It's good news for the UK's economy to do this work here.
- It seems a pity to do the hi-tech dismantling in Devonport, but not the actual breaking.

Questions Raised:

- Where is the nuclear bit now?
- If you take it out whole now, where are you going to put it?
- What size would the vessel need to be to hold the RPV?
- Will the RPV be contained when you move it from the submarine?
- Where will you make the cuts on the submarine to remove the RPV?
- Is the RPV currently in its own casing?
- Can you lift the Primary Shield Tank out?
- Can I assume that the whole operation will take place within a dry dock?
- Can I presume that the whole area will be screened to protect people from radiation?
- What's the duplication cost of machinery in relation to that of tugging the submarines between dock yards?
- How safe is storing this material? Is there a terrorist threat?

- These are hi-tech submarines. Is there a national security dimension to dismantling these types of boats?
- Where will the actual dismantling of the ship take place?
- Will the revenue created by dismantling go back to the Government?
- There's a lot of focus on the radiology. How much none radioactive hazardous material is there and who deals with it?

Consensus:

- The waste should be stored at an existing NDA site.
- The rational sounds logical.

H.2. 07 Dec 11 - 15:00 Workshop

Recorded by Ed Grieve and Siobhan Lavelle

MOD attendees: Nigel Parsons, Mike Cushen, Sally May, Simon Tinling, Lt Cdr Chris Hall

Environment Agency: Paul Naylor

Attendees – 14

1. [Redacted]
2. [Redacted]
3. [Redacted]
4. [Redacted]
5. [Redacted]
6. [Redacted]
7. [Redacted]
8. [Redacted]
9. [Redacted]
10. [Redacted]
11. [Redacted]
12. [Redacted]

Comments/ Points:

- I think one of the main things for the public is safety. I can't see that you will be able to have a nuclear licensed site in a dry dock.
- I'm concerned because what you do in the dockyard has been planned for. You are proposing to do something that hasn't been planned for.
- Looking at Devonport's safety record to date is important when deciding on a site to dismantle the submarines.
- The Environment Agency simply states that it's safe when it is not.
- You say a facility will be built at the dock which will stop radioactive releases when you cut up the submarines; you haven't factored luck into this. I've worked at the dockyard and we have been lucky not to have an accident in the past.

- I have a map of the River Tamar in front of me. I've written to politicians in the past to tell them that we've had seven cases of cancer, over the past years, in residents living on the Tamar, opposite the dock yard. This can't be a coincidence. (Wilcove)
- CANSAR representative explained their group and the survey it recently did on cancer in Plymouth. This survey demonstrated that cancer rates were 19 times higher than the national average. He highlighted the survey was an amateur affair and had been criticised by groups in the past.
- I would prefer to see some research on cancer levels done in the Saltash/ Torpoint area.
- We have drifted into another area, but I'm having difficulties getting to grips with what we are consulting on today. There is no indication of how radioactive the waste you propose to deal with is.
- You are asking us to consider storage of this waste in an Interim Storage Facility for 100 years. If there is not much radioactivity then that's fine. If there is a lot of radioactivity it will still be very dangerous in 100 years.
- The long lived radioisotopes are not a problem in terms of storage.
- Option one 'RC Separation' is the best from a safety point of view.
- I don't believe that RC storage will take a building the size of 1.5 football pitches.
- The Americans do not store the submarines in the desert.
- You should pay the Americans to deal with the submarines.
- This is going to produce more work for Devonport Naval Base. We are moving into a future where nuclear power will have to fuel the country. Gaining experience at dealing with nuclear waste will build the areas expertise and help the local economy.
- Nowhere in this presentation have you talked about timescales and what is involved. I don't know why it will take until 2040 to construct the Geological Storage Facility.
- My personal feeling is that an Intermediate Storage Facility should be able to be regarded as permanent if unforeseen things go wrong.
- You shouldn't construct a building; you should put the waste underground.
- We've had nuclear power for 50 years and we still have no way of dealing with high level waste.
- CANSAR spokesperson: We have the nuclear dockyard, that's how it is. If we start cutting up these submarines my children may just see the end of this project. If we store the nuclear waste here my grandchildren will not see the end of this project. My view is that we should be looking elsewhere to store the waste, away from Devonport, which is what is being considered by the MOD.
- I'm interested in whether fluid material gets into the Tamar from submarines.
- I think there are things in the Tamar to be worried about.
- Nuclear waste has a cumulative effect. If we have more leaks it will cause more damage and for longer.
- I am concerned about defueling in a highly populated area.
- I cannot see how you can dismantle a nuclear submarine in a dry dock. You cannot do this dismantling safely.
- When you come to dismantling you are going to have to deal with radioactive debris and dust. You will need cleansing processes to deal with this.
- This work isn't always safe enough. Maybe we shouldn't be doing this. One thing we should take away from this is that we should not build any more nuclear submarines.

- We should be questioning Government policy on exporting nuclear waste. We shouldn't simply accept that we have to deal with this.

Questions Raised:

- Can you tell us how many radioactive leaks have happened at Devonport since nuclear submarines have been at Devonport?
 - Who sets the discharge limits?
 - Were the discharge limits not multiplied by seven recently?
 - What is the ratio of the radiation emitted at Devonport in comparison to the rest of the country?
 - What sort of timescale are you looking at before this radioactive material is safe?
 - How radioactive is the waste?
 - What happens to beta radiation if it gets into the watercourse?
 - Have you considered the impact of Tritium?
 - All you need is a fire at the site to get cancer?
 - Suppose you take option two and remove the whole compartment, will you remove the RPV before the ship is sent to the breakers yard?
 - Has the metal outside the RPV been irradiated?
 - In your newsletter it mentions that other countries already dismantle their nuclear submarines. Is there a record of any accidents taking place during the dismantling processes?
 - How do other countries dismantle their submarines?
 - Have you costed all your options?
 - Do the Americans consider this waste low level?
 - Why can't we take submarines that come out of service somewhere dry, overseas?
 - Why won't docks other than Devonport defuel submarines?
 - I heard this work will create more jobs. Please qualify this.
 - Are you saying that intermediate level waste will be stored with high level space? That sounds costly to me.
 - Could you tell us what you do with the low level waste?
 - My son worked in submarines for 28 years. If I ask him how submarines discharge waste, is that relevant?
 - Do they publish the radioactivity readings they take from the Tamar?
-
- I think we should agree with storing the waste at an NDA site.

Feedback on Consultation:

- These booklets are splendid. If I had them a month ago I could have really done my homework.
- I'm very impressed with the consultation.

H.3. 07 Dec 11 – 16:30 Workshop

Recorded by Ed Grieve and Siobhan Lavelle

MOD: Nigel Parsons, Lt Cdr Chris Hall, Mike Cushen, Simon Tinling, Paul Naylor (EA Rep)

Attendees – 9

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]

Comments/ Points:

- I don't see that there is enough space to store this waste in Devonport dockyard.
- The Government always changes its mind.
- What I'm saying is we've talked about waste, recycling and on-going refuelling. We have to look at the wider local waste management issues.
- You haven't presented the whole problem.
- By adding activities such as this you complicate the problem.
- It's not significant to look at this on its own; it must be looked at in line with the wider dockyard/ area.
- This is a numbers game. All the submarines are stacking up in Devonport. Rosyth has the space and is less built up, but Devonport has the defueling facility.
- Houses are not as close to Rosyth as Devonport.
- There are regulations on control of activities in Devonport. I believe that activities must take place 500 yards away from a public area.
- It seems to me that the hazards involved in defueling are far higher than the hazards involved in dismantling.
- Devonport is long and narrow so if this activity takes place at Devonport it will take place close to a built up area.
- My concern is safety.
- If you are taking money from the MOD/ Government, then you cannot be independent.
- You can't assume that the Government uses joined up thought.
- I just hope this creates local work for local people in a safe way that is up to you.
- From my point of view, as nuclear defueling has gone on for 30 years at Devonport without incident, it is the place to do this.
- I am concerned about how changes in the planning system will affect this work.
- I am embarrassed by the length of time it takes to achieve objectives. There are too many committee processes.

Questions Raised:

- Is there no possibility of building a defueling facility in Rosyth?
- Are you saying that the Scots don't want a defueling facility in Rosyth?
- What are the by-products of the radiation?
- Are all the submarines being dismantled in Devon?
- Will we be informed about the final decision?
- Would there be any regulations on siting this activity?

- Have you got a higher risk factor of a nuclear incident locating this activity near the defueling facility?
- Have the safety cases not been made? These issues may dictate how this process goes ahead.
- Will there be any consultation with the public once the decommissioning site has been identified?
- Is there someone truly independent on the committees that will take the decisions on these issues?
- With all the cutbacks that are going on will the independent regulators be in the firing line?
- Can you assure me that you will not take foreign submarines and decommission them at Devonport?
- When will this start?
- Will you have enough room in the dockyard to take a further ten submarines?
- Will you have storage sites set up by the time this work starts?
- Will this work be able to bypass planning processes?
- It appears to be sensible to use existing storage facilities run by the NDA.
- It is a concern of the group that Government cuts effect independent regulation of nuclear activity.

Feedback on Consultation:

- This consultation should have been undertaken 20 years ago.

H.4. 07 Dec 11 – 18:00 Workshop

Recorded by Ed Grieve and Siobhan Lavelle

MOD: Nigel Parsons, Simon Tinling/ Lt Cdr Chris Hall/Mike Cushen/ Paul Naylor (EA Rep)

Attendees – 11

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]

Comments/ Points:

- You're basically going to cut the RPV out.
- What you haven't got is a 'when'. You have no storage facility yet.
- The longer you leave it the safer the waste becomes. The decisions should not be based on cost alone. Safety of local residents should be paramount. If we can delay

this and reduce the radioactivity later, when it is less dangerous, that may be preferable.

- This is based on cost not safety.
- I think all of us would be concerned about radioactive water being spilled into the Tamar.
- The proposals will probably have less impact than the work currently taking place.
- There are no schools within a foot of the container.
- House prices have gone up around Sellafield.
- I'm interested in the reduction of public sector spending. We're told the answer to the economic crises is the private sector. What business in its right mind would move to Plymouth is this goes forward? None.
- The lack of motorway and lack of airport would be much more detrimental to private business moving to Plymouth than this work.

Questions Raised:

- Is there any risk of contamination coming from dust when the pipes connecting the reactor to the submarine are cut?
- There is no room in Rosyth?
- When will you start dismantling?
- Will we scrap all submarines after they have been laid up for 30 years? Based on radioactive decay.
- How thick is the casing around the reactor?
- You have a formula to work out when these boats are decommissioned?
- Have all of the submarines been defueled?
- What sort of exclusion zone will be needed when the RPV is removed?
- Would the gamma radiation have decayed away by the time the RPV is removed?
- I'm a bit concerned about the pipes coming out of the RPV. How irradiated are they?
- What are the proven routes for disposal of radioactive water?
- Why are the pipes classified as low level waste?
- Are all the Environment Agency's reports available for the public to read?
- Are radiation levels low after the accidents?
- If we put the waste into interim storage, why can't it be left there indefinitely?
- How long will the interim storage last?
- You could potentially store it in a steel container for 100 years?
- How heavy is the RPV?
- How would the waste get from the port to the interim waste facility?
- How many schools are close to the dock yard? And how many homes? And how does this compare to Rosyth? And have you looked at this?
- How short distance is the beta radiation.
- How will the impact upon housing price?
- What does deep maintenance mean?

Feedback on Consultation:

- It would be useful if we had accessible community information presented about our community, by the MOD.

- I think this has been very interesting.

I. Workshops - Edinburgh

I.1. 10 Dec 11 – 11:30 Workshop

Recorded by Alice James, Stephen Duncan, Ben Johnson, Victoria Lewis-Stephens

MOD: Lt Cdr Chris Hall, Nigel Parsons, Mike Cushen.

SEPA: Laura Kerr

Advisory Group Observer: Les Netherton

Attendees – 3

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

Comments/ Points:

- A stakeholder stated that removing the RPV, size reduction and packaged waste is the best option. It was suggested that the MOD carry out simulations of the different options to realise the most cost effective one. It was stated that it is important to work out the cost of the different options from dismantling to final disposal in the GDF
- A stakeholder stated that it is important that the MOD have a 'seamless' transfer among staff over the lifetime of the project, to ensure the projects integrity. Point was supported by other stakeholders
- The stakeholder stated that the RPV should be removed and stored whole until the 'technology' becomes available to the SDP
- It was added that there should be a remote site within a remote site when handling the RPV. Safety is a concern for the stakeholder
- The stakeholder discussed use of remote equipment in 'hot cells' when decommissioning nuclear power stations, and how equipment was 'fried' by the radiation levels
- A stakeholder stated that they are anti-nuclear, but realises that you need to be practical and deal with the issue of submarine dismantling without becoming to emotive
- A stakeholder stated that option 2 seems the most pragmatic and viable solution. The stakeholder wanted to know if the SDP had taken into consideration the extra costs if option 2 has to eventually result in cutting the waste up
- What would happen if the head of the RPV is removed and a dome is put back on? The stakeholder also wanted to know if the space in the vessel could be filled with a material that will assist with the long term storage
- A stakeholder suggested that it would be better to dismantle on site, such as Rosyth, as it would remove the risk of moving and transporting the radioactive material, and upsetting local communities. The stakeholder stated that keeping it at Rosyth will create jobs for local residents, and will provide jobs at varying skill levels
- There was an agreement among stakeholders that the 27 submarines should not be consolidated at one location

- A stakeholder wanted to know where the 10 operational submarines, that are yet to come out of service, will be dismantled
- It was stated that having the 27 submarines in one place would result in expensive transportation costs
- It was suggested that if elements of the project become delayed at Devonport then the MOD should have the option of bringing additional submarine to Rosyth. There should be flexibility in the project
- A stakeholder stated that they are not supportive of the commercial facility option, due to concerns surrounding safety. The stakeholder would be supportive of a storage facility that was managed by the MOD and another regulated body.
- The stakeholder would like to see a film/ documentary made that detail the submarine dismantling process. It was stated that it needs to be clear to the public what the dismantling will involve
- Another stakeholder agreed with this idea, and suggested using the Glasgow School of Art
- A stakeholder stated that they were not as concerned about the use of commercial sites. The stakeholder would prefer a site licenced company as they would look to be more cost effective and may speed the process up
- Another stakeholder stated that they would prefer as few nuclear licenced sites as possible, as this would lessen the associated risks. The stakeholder stated that an existing nuclear licenced site would be the preferred option

Questions Raised:

- Is it possible to remove the Reactor Compartment and leave it buoyant in the wet dock? The stakeholder felt that this may be a solution for short term capacity issues
- What are the issues in regards to transportation of the Reactor Compartment?
- One stakeholder does not want commercial storage or disposal. The stakeholder had concerns about the introduction of commercial enterprise and third party involvement in storage and dismantling. It was felt that this would lead to increased risk, with LLW safety not being taken seriously. The stakeholder wanted to know if storage of LLW and ILW would be classified and secure
- The dismantling of US vessels in the North East by Able Ship breakers was discussed
- Is keeping the RPV whole in the hope of GDF being suitable for final disposal a realistic option. The stakeholder questioned whether the size and weight of the whole RPV would be an issue for the GDF. The stakeholder questioned how the RPV would enter and be transported in the GDF
- The stakeholder wanted to know how the SDP fits in with the civil decommissioning
- It was suggested that the decommissioning activities of other sectors should be included on the project timeline. The stakeholder discussed the two storage locations in Dounreay, one MOD and one civil location, would the storage location at Dounreay be able to assist the SDP
- A stakeholder stated that it is great that the MOD are being forward thinking and not leaving the problem to future generations. The stakeholder discusses the example of Russia dumping nuclear waste in the sea
- A stakeholder stated that they had come along with an anti-nuclear perspective, but feels greatly reassured by the project

Feedback on Consultation:

- A stakeholder stated that the project is a good example of informing the public, and has never seen it done on this scale. It was added that there has been a lot of effort to involve the public, and would like that effort to be extended to companies that can help in this project
- It was stated that it is not immediately obvious in the consultation how it was narrowed down to just Rosyth and Devonport. The stakeholder suggested that the thinking behind why other sites have been discounted should be made clearer to the public
- A stakeholder stated that they would like to be kept up to date on the project and consultation
- A stakeholder stated that the public need to be made aware that this project will be safe, will have highly trained employees and will be much more coordinated than a nuclear station. It was stated that the public need to be reassured that the project is not going to be anything like Fukushima or Three Mile Island
- It was stated that nuclear is an emotive subject. It was suggested that the project should be proactive in its safety message, the MOD should provide regular screenings for the workforce, and should provide the local hospital with a MRI scanner. It was stated the community, where the project will happen, should experience tangible benefits, such as the MRI scanner, and suggested that this would improve confidence in the project
- Another stakeholder disagreed, and suggested that that this may give the public the idea that the project is more dangerous than it actually is
- It was added that the project may be beneficial in regards to jobs, but local communities need to realise the levels of risk involved in the project

I.2. 10 Dec 11 - 13:00 Workshop

Recorded by Victoria Lewis-Stephens

MOD: Christine Bruce

Attendees – 1

Comments/ Points:

- It was stated that it makes sense not to move submarines around, and dismantling where the submarines are now seems the most pragmatic option
- The stakeholder suggested that the MOD should try to do as little as possible to the RPV. The stakeholder would prefer option 1 but realises the issues that this may cause in terms of storage
- It was stated that the proposal makes sense, but the stakeholders concern is the MOD should always be ultimately responsible for the waste

Questions Raised:

- The stakeholder had a list of questions which are listed below;
- How long will this project go on for?

- Will the MOD always maintain ultimate responsibility for the waste – is there a risk that commercial enterprise will take over and not be constrained by the same regulation?
- What are the environmental impacts?
- How much would radioactivity be reduced by if you delay the cutting up?
- What are the health risks to individuals?
- Does the fact that dismantling may take place in Rosyth secure jobs?
- The stakeholder stated that we have decommissioned submarines and we need to establish what we do with them now. We absolutely need to do something, and not leave this to the future generations

Feedback on Consultation:

- It was added that they are concerned about children's safety and want to ensure that whatever is done is as safe as possible
- It was suggested that the MOD need to educate the public to try and dispel the myths around nuclear

I.3. 11 Dec 11 - 18:00 Workshop

Recorded by Victoria Lewis-Stephens, Ben Johnson, Alice James

MOD: Nigel Parsons, Lt Cdr Chris Hall

Attendees – 2

1. [REDACTED]
2. [REDACTED]

Comments/ Points:

- The waste you are producing, 0.2%, its nothing. The NDA site will have the necessary infrastructure to deal with the ILW
- The MOD are in a position where we could be the market leaders when it comes to submarine dismantling. The UK can set the bench mark
- When will the cutting of the submarines at Rosyth take place
- How will the rest of the submarine be transported after RPV removal
- The stakeholder felt that the project will be driven by money and the cost effectiveness of the project
- Wanted to know what will be the next set of problems after the SDP. The stakeholder felt that it would not just stop at the 27 submarines
- A stakeholder questioned whether the designs will be in place before the project starts
- The stakeholder suggested that the MOD could use Sellafield to store the ILW

Questions Raised:

- What is the risk for workers involved in removing the RPV
- Once you start to cut the RPV up you increase the risk, especially to the people who have to work with the RPV

- It was suggested that the MOD could build a storage unit around the RC before the RPV is removed and cut up
- A stakeholder stated that there are two arguments for where to store it – store it in a populated area like Rosyth, or it could be moved to a remote site like Faslane
- It was also suggested that Rosyth may have alternative storage options in the form of old mining shafts in the area. The stakeholder wondered if the mining shafts could become nuclear licenced sites. It was stated that the RPV has been sitting at Rosyth for many years already, so what harm would it do if the MOD stored it down an old mine until the final disposal solution is decided
- It was felt that the ILW could have a use in years to come, and cutting the RPV up would remove the possibility of the material having a future use. The RPV is high grade metal and will decrease in radiation levels
- The stakeholders stated that the MOD could learn from the Americans
- Wanted to know if, once the rest of the submarine is removed and dismantled, will the MOD have space for temporary storage of the RC at the dockyard
- If Inverkeithing is used for the shipbreaking the submarine will only have to be transported one mile
- A stakeholder stated that they understand why Rosyth is being used for the dismantling process as it has always been a naval base
- Keeping the RC whole involves less work and less risk
- Would smelting the ILW into ingots make it easier to deal with, and more attainable for future generations to use
- The best route would be to smelt it and store the material for future use. The material may not have a use in 30 years times but you are leaving the option open How are you going to deal with the future submarines coming out of service
- A stakeholder found out about the consultation in the Evening News
- Stakeholder did not know about the consultation in Rosyth, works in Rosyth Dockyard. It was suggested that the best place to advertise the consultation among Rosyth workers would have been the Babcock canteen
- The submarines have been at Rosyth for a long time and people have accepted activity at the dockyard
- People realise that the submarines are safe
- Does the Navy look after the Dockyard?
- What views have come up in the consultation so far?

I.4. 12 Dec 11 – 11:30 Workshop

Recorded by Ben Johnson, Alice James, Victoria Lewis-Stephens, Stephen Duncan

Lt Cdr Iain Roberts, Andrew Johnson, David Stone (SEPA), Dr Sue Jordan

Attendees – 5

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]

Comments/ Points:

- A stakeholder stated that their preference would be to remove the RPV whole and keep whole until further development. Suggested that it would be best to store it at an NDA facility near to the final disposal site
- Another stakeholder agreed with the above statement and added that it will give the MOD project flexibility
It was stated that the RPV whole option allows the submarine to remain intact for towing

Questions Raised:

- Will you publicise the project in the newspapers as there is a fear of the unknown
- A stakeholder suggested that knowledge of radiation needs to improve, discusses Dalgety Bay
- Is storage of the RPV in Devonport and Rosyth an option?
- A stakeholder wanted the MOD to clarify that dual site and NDA proposals is just a proposal
- What is the dose benefit for delayed RPV reduction
- What are the proposals for whole RC removal, would you have to store them on site?
- It was stated that Inverkeithing is not very far away for ship breaking
- A stakeholder wanted to know what the environmental impacts of ship breaking are, once the radioactive waste is removed
- Has another Navy chosen to go down the RPV removal route? Is RPV removal a tried and tested process
- Were the risks of doing something new taken into consideration when proposing the RPV removal
- It was added that the RC option would reduce dosage, was the increase in dosage taken into consideration with the new RPV process.
- Have the MOD published the dose figures
- A stakeholder stated that they had been involved with the refuelling and defueling at Rosyth, removing the RPV is fairly straight forward compared to the defueling process
- A stakeholder discusses the statement that '*nothing will happen until storage solution is agreed*'. The stakeholder wanted to know what would happen if the MOD proposal for dismantling is agreed, but the interim storage solution took a long time to reach an agreement (planning process)
- The stakeholder wanted to know if there are any prospects of more submarines coming to Rosyth
- A stakeholder stated that all 27 submarines should be towed up to Rosyth, it is not a hazardous process so why not. If not all 27 submarines the MOD could balance the number of submarines at each site
- It was stated that Rosyth needs to have sufficient facilities, especially in terms of safety
- A stakeholder would prefer a centralised storage area for the ILW rather than lots of sites across the country
- It was stated that the MOD should use a NDA site rather than adding a facility for a small amount of waste

- It was added that whatever proposal is chosen it must be future proof, the example of Scottish independence was used
- It was asked whether the RPV would need a bespoke storage box
- A stakeholder stated that there needs to be extra focus on the views of stakeholder at the interim storage site, as the facility may be in use for many decades. It was suggested that the MOD need to make it clear what is meant by 'short term' storage

Feedback on Consultation:

- It was stated that the MOD are putting in a monumental effort towards the consultation. They wanted to know how many members of the public have attended the consultation
- A stakeholder added that the proposals were well explained, and the project is long overdue

I.5. 12 Dec 11 - 13:00 Workshop

Recorded by Stephen Duncan, Ben Johnson, Alice James

MOD: Lt Cdr Iain Roberts

Attendees – 1

1. [REDACTED]

Comments/ Points:

- It was stated that if the SDP was located at Rosyth it would remove any transportation costs
- The stakeholder added that there is a level of acceptance at Rosyth as residents have lived with the dockyard for years, a new site will create a new hurdle for the MOD to overcome in terms of the local community hostility
- What would happen to the project if Scotland became independent?
- The stakeholder suggested that Dounreay be considered as it is remote, unlike Rosyth and Devonport
- The stakeholder stated that a NDA storage site will provide a commonality of standards and supervision
- It was added that the interim storage facility would have to be controlled by a suitably qualified and responsible organisation
- The stakeholder was concerned about regulation standards. It was stated that the storage facility must have the highest standards of safety, and this will only be achieved through effective, thorough, and long term regulation
- It was queried whether the demonstrator would determine whether the final proposal is correct or not
- The stakeholder added that the MOD are doing all that they can in terms of safety by having professional people looking after the submarines, and independent bodies cross checking the SDP's actions
- However, the safety procedures may be in place but the MOD cannot account for an individual's actions

- The stakeholder added that something has to happen with the submarines, Dreadnought has been laid-up for a long time. The stakeholder would prefer the proposal of keeping the RPV as a whole

Questions Raised:

- Are the fuel rods stored at Sellafield?
- Is there any risk when transporting the ILW?
- Queried whether members of the public without a scientific / engineering background have been swayed by the MOD's safety rationale
- It was stated that the issue is being addressed in a professional, detailed manner, but safety cannot always be guaranteed. The stakeholder discussed Dalgety Bay, and how mistakes are only now being realised
- The stakeholder stated that storage of the entire RPV seems the best approach. It was added that whole RC removal would create other problems. The stakeholder would prefer whole RPV removal so that the submarine structure is not interfered with
- Have you had leaks between primary and secondary shielding/circuit?
- The stakeholder supports the RPV whole option but it must be stored securely
- It was added that whole RPV removal and storage will be beneficial as it will reduce the levels of radiation by the time the GDF becomes available, and remote handling techniques will have improved if the MOD decides to carry out size reduction at a later date
- Is there any significant difference in the material being handled by the civil nuclear industry and the SDP?
- How would you prioritise which submarines to dismantle and when?

Feedback on Consultation:

- It was suggested that the MOD's main battle would be explaining the project to the general public
- The stakeholder felt that the approach taken seems to be thorough, but the MOD need to carry through the standards and regulation of the project
- The stakeholder found out about the consultation through the BBC Scotland report on Dunfermline and looked it up on website

J. Workshops - Rosyth

J.1. 13 Dec 11 – 11:30 Workshop

Recorded by Stephen Duncan, Alice James, Ben Johnson

MOD: Mike Cushen, Nigel Parsons, Lt Cdr Chris Hall, Dr Sue Jordan, Christine Bruce

Attendees – 32

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]
13. [REDACTED]
14. [REDACTED]
15. [REDACTED]
16. [REDACTED]
17. [REDACTED]

Remaining attendees did not give their names

Comments/ Points:

- Do the methods of removal affect the way the ILW has to be stored and how long it has to be stored for
- A stakeholder would prefer the RPV be moved out of Rosyth, the moving of aircraft to and from Rosyth was highlighted as a means of moving the RPV
- Where are the potential ship breakers located
- Would the shipbreaking be sent abroad
- If you cut the RPV up will it become more dangerous
- A stakeholder stated that ILW storage proposals for the MOD and power stations appears to be leave it on the surface for as long as possible as there is no site for GDF
- There were concerns surrounding the viability of long term storage, and the need for an end to end process to be in place
- A stakeholder stated that RPV removal is the 'least worst option', as there were concerns surrounding exposure to workers and the amount of time needed to remove the ILW
- A stakeholder stated that Rosyth does have some responsibility to get rid of the submarines in Rosyth dockyard. The stakeholder would prefer the RPV and submarines to be removed from Rosyth as fast as possible so the dockyard is freed up for other commercial activity. It was stated that Rosyth has to attract other

business. It was added that Rosyth should only have to deal with the 7 submarines at Rosyth and no more

- Is it possible to close down a licence site, or once it is a licenced site will it always be licensed
- When discussing employment opportunities created by the SDP, a stakeholder suggested that most of the nuclear skilled workforce had already moved out of the area, therefore the economic benefits would be slim. The stakeholder wanted to know if jobs would be locally resourced
- A stakeholder stated that the SDP will prevent investment in the Dockyard and Rosyth
- Why is there a restriction on the speed of the project due to Devonport's capacity. It was added that the submarines at Rosyth should be scrapped as soon as possible, and shouldn't be held up by Devonport
- What happens if independence occurs in Scotland
- A stakeholder asked for a copy of the presentation
- What happens with the next generation of submarines?
- What happened with the fuel rods that were removed in Rosyth
- It was suggested that the development of future submarines does not appear to fit in with the promise of sustainable development
- It was added that they are concerned that Rosyth will be pressurised to take future submarines dismantling if the SDP is based at the dockyard. It was stated that future submarines should be sent to Devonport
- A stakeholder was concerned about the regulation of SDP and the role of SEPA
- A stakeholder stated that they are worried about how long interim storage would be at Rosyth for. What impact would it have on future development at Rosyth? The stakeholder suggested that the economic aspect seems to have only been looked at in regards to cost to the MOD and not to future investment in Fife
- It was stated that it is uneconomic to build a storage facility for 7 RPV at Rosyth when the MOD have RPV's elsewhere in the country
- 'Babcock is the elephant in the room' Stakeholders were concerned about the monopoly Babcock holds in relation to the SDP suppliers. There was concern that the project will be driven by Babcock and a commercial decision
- A local councillor interjected, and stated that the SDP will be subject to planning and regulation rules
- There was a discussion about Babcock's vested interest in the project. It was suggested that Babcock could sway the argument with the infrastructure that they already own
- A stakeholder stated that it makes more sense to store the ILW at a site such as Devonport, where there are already facilities for defueling. It was added that it would not make sense to build new facilities at Rosyth for just the 7 submarines
- It was queried if the submarines at Devonport could be dealt with, and then the submarines at Rosyth could be moved to Devonport to be dismantled
- Cynicism among some stakeholders about the 'joined up thinking with Government' in regards to the GDF
- A stakeholder questioned why the consultation was not advertised as storage of nuclear waste and not just dismantling. It was suggested more people would be interested if that was the case

Questions Raised:

- Why can't the shipbreaking take place on the site it is dismantled
- A stakeholder stated that they are concerned that Devonport will get the benefits of the SDP and Rosyth will get the 'dirty' part of the project (ILW waste)
- How long does the ILW have to repose in the interim storage facility? Is it a matter of waiting for the GDF, or is it a question of letting the waste decrease in radioactivity
- It was suggested that the ILW could be easily transported to Sellafield until the GDF becomes available
- Does the national inventory, stated in the presentation, include the decommissioning of nuclear power stations
- A stakeholder was concerned about the safety of rail or road transport. They stated that transportation was not as feasible as stated, due to break downs and accidents
- However, another stakeholder interjected that transportation 'mishaps' cannot occur that often
- A stakeholder stated that they are 'minded' to accept the MOD preferred proposal compared to the other options as it is a much better solution than cutting up on site, transportation will be easier, particularly transportation from Rosyth to Sellafield
- The stakeholder wanted to know if RPV interim storage in Rosyth is a possibility. The stakeholder was concerned that the dockyard is a valuable commercial site, and the proposals will inhibit commercial use for a long time. The stakeholder added that it is a 'big ask of Rosyth'
- A stakeholder discussed Dalgetty Bay, they wanted to know what regulation will be put in place to prevent incidents like Dalgetty Bay from happening again
- It was suggested that the MOD credibility has been damaged by Dalgetty Bay, and the MOD has to explain why residents should trust the MOD again
- A stakeholder stated that Devonport gets 'everything', Barrow are getting the new Astute class, and Rosyth is being left with a 'dump'. It was suggested that if other, more beneficial aspects of submarine activity, is located at Devonport, then the SDP should be located there as well
- Another stakeholder added that with that option you are taking work away from the Rosyth area
- A stakeholder was concerned about the projects timescale, particularly as the GDF is still not available or the interim storage site is still unknown (Sellafield). The stakeholder was also concerned that once the SDP is based at Rosyth, the Dockyard will be unavailable for other commercial activity
- A stakeholder felt that ILW storage at Rosyth will not happen due to political factors
- Has decommissioning at civil nuclear sites happened before, and has that happen on nuclear licenced sites.
- It was stated that nuclear power stations have the facilities to deal with their ILW waste, will the MOD have to build a bespoke facility to deal with the waste that is yet to be produced
- What are the issues surrounding MOD ILW storage at an existing NDA site? Is the problem price?
- A stakeholder was concerned about the GDF, and the lack of agreement surrounding the final disposal site. The stakeholder was also concerned about the climate change and its effects on the GDF

J.2. 13 Dec 11 - 13:30 Workshop

Recorded by Victoria Lewis-Stephens, Alice James, Ben Johnson

MOD: Mike Cushen, Lt Cdr Chris Hall, Nigel Parsons

Attendees – 8

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]

Comments/ Points:

- A stakeholder praised the quality of the presentation, but stated that the presentation focused on the positives rather than the risks. It was added that the submarines are safe at the moment but when you start to interfere with them the risk increases. The stakeholder stated that America has not interfered with the RPV, but the MOD are asking the UK to be pioneers in RPV removal
- One concern raised was, once the SDP is located in Rosyth it will remain in Rosyth, and the economic advantage to Rosyth is very thin
- It was stated that not all risks can be mitigated
- Are the 100 created / sustained jobs local jobs?
- A stakeholder stated that if the economic benefits outweigh the risks then they would be more supportive, but the stakeholder is yet to be convinced
- Another concern raised was that there will not be an end to end process in place
- It was suggested that the MOD should leave the submarines where they are and as they are, as they are safe
- Has the US kept the Reactor Compartment intact due to dose burden to workers
- It was suggested that the deciding principle should be to avoid dose to workers, therefore the RC should be kept whole as it is an effective form of containment. The stakeholder felt that there isn't any benefit in taking the RC apart until the GDF is available
- A stakeholder questioned why there has been a shift in the preferred option, wanted to know if cost is the driving factor
- Interim storage is high cost
- Rosyth does not have a capacity issue, Devonport has an issue
- A stakeholder stated that the cost effectiveness of the project has been discussed a lot, but the project cannot be cost effective over safety. The stakeholder added that the 7 submarines should remain, untouched at Rosyth, as Rosyth does not have the capacity issue that Devonport has
- It was suggested that the do nothing option has to be considered, even if it is more expensive
- A stakeholder suggested that not enough weight has been attached to the dose burden during dismantling and storage. The stakeholder would prefer the RC to be left intact, to worker dosage is reduced
- It was queried if Rosyth Dockyard has the necessary infrastructure and skill pool for the SDP

- A stakeholder stated that it would be expensive to equip both Devonport and Rosyth, and Devonport already has the necessary facilities
- A stakeholder wanted to know if the MOD has looked at building another basin at Rosyth to store the submarines. The stakeholder would prefer the 'do minimum option'
- Any indication what the scrap value would be?
- What is your measure of success for this consultation process?
- A stakeholder suggested that more emphasis should be put on the ALARP principle
- Another stakeholder asked if the risk is worth it to the local economy?
- It was stated that a final solution for the submarines should have been thought about in the design stage. It was added that there needs to be continuity to the proposals
- A stakeholder wanted to know if the MOD are consulting the Scottish Government
- It was added that 2040 is a long way off, and what will happen to the proposals when there is a change in UK Government
- A stakeholder stated that they found out about the consultation through their son who lives in South Queensferry
- A stakeholder suggested that the Fife direct site could be used to advertise future consultation

J.3. 13 Dec 11 - 15:00 Workshop

Recorded by Stephen Duncan, Alice James, Victoria Lewis-Stephens

Lt Cdr Chris Hall, Andrew Johnson, Andrew David, David Collier (AG), Isabelle Watson(SEPA), Dr Sue Jordan, Nigel Parsons

Attendees – 14

1. [Redacted]
2. [Redacted]
3. [Redacted]
4. [Redacted]
5. [Redacted]
6. [Redacted]
7. [Redacted]
8. [Redacted]
9. [Redacted]
10. [Redacted]
11. [Redacted]

The remaining attendees did not give their names

Comments/ Points:

- There was agreement among the stakeholder that RPV removal seems the safest option, as it will reduce the risk involved in cutting up
- It was added that this option leaves the possibility of keeping the RPV whole for the GDF
- A stakeholder stated that their only concern with option 2 is Rosyth will lose the 'good bit' of the work to someone else. It was suggested that Rosyth should have the option of ship breaking , as they have put up with the submarines for long enough

- A stakeholder commented that Babcock is hopeless at consultation
- A stakeholder wanted to know if Network Rail is happy to transport the RPV, it was suggested that it would be safer to do it by sea
- How do you get the RPV out when the submarine is in the dry dock
- Is the RC ILW after the RPV is removed
Would any material be stored at Rosyth before it is sent off to Drigg
- One stakeholder stated that it would be better to get rid of the 7 at Rosyth to free up the dockyard in Rosyth. Stakeholder discusses the loss of the Trident contract
- 2 stakeholders think all 27 should be done at Rosyth
- It was added that it would be an excellent work opportunity for Rosyth, and the ILW should be stored on site
- The stakeholder stated that they cannot see any radioactive hazard associated with this, it is only the workers who are at risk
One stakeholder stated that this may be the case but safety cannot always be guaranteed
- Stakeholders are supportive of using the NDA facilities
- One stakeholder stated that wouldn't mind very short term storage at Rosyth
- A stakeholder was concerned about the risk associated with tampering with the RPV
- It was stated that there should be as few nuclear sites as possible, there should be a centralised storage site
- A stakeholder added that 50-100 jobs is great but the port at Rosyth has a lot of potential. Need to make sure the perception of a nuclear waste site doesn't turn away future inward investment in Rosyth
It was stated that Rosyth wants the highly skilled jobs, not just the 'horrid' work
- What will the long term legacy of the SDP be for Rosyth, what is Rosyth going to be left with beyond the 7 in Rosyth. There is a fear among a couple of stakeholders that Rosyth could be used past the 7, there needs to be a full stop after the 7 submarines
- Another stakeholder added that people forget that nuclear fuel was at Rosyth before and that did not stop industry coming here
- Another stakeholder discusses cancer levels in the area, safety cannot be guaranteed
- Stakeholders are pleased that they had the opportunity to be consulted on the SDP. There is a cynicism about politicians involvement, discusses the trident refit
- Stakeholders are happy with the rationale behind proposals

Questions Raised:

- Where are the removed fuel rods stored at the moment?
- Was Portsmouth or Chatham ever considered for the SDP?
- Where are the NDA sites? Are they all power stations?
- What is the level of waste already stored at Rosyth? Would there be capacity in Rosyth for the short term storage of the ILW
- How would you move the waste from the site? Would you use the railway line at the Dockyard? The stakeholder wanted to know if the proposed container terminal at Rosyth would conflict with SDP rail use.
- The stakeholder added that they are not concerned about the safety of transportation, but the feasibility of using the rail line
- A stakeholder wanted to know who pays for the SDP and how is it budgeted for? The stakeholder was comforted by the knowledge that the budget is ring fenced

- How will you shield the radiation from the RPV until the final disposal solution
- A stakeholder was concerned that once Rosyth has capacity other submarines, from the UK and abroad, will be sent to Rosyth due to its facilities and expertise. The stakeholder does not want the SDP to be located in Rosyth
- What is the timescale for the project?
- Will future submarines be sent to Rosyth or Devonport?
- There were concerns that the project will not stop at the 7 submarines in Rosyth. It was suggested that as the MOD will have invested in an expensive facility already at Rosyth there will be pressure for Rosyth to take future decommissioned subs
- '*We will be the scape goat*' for future dismantling
- It was suggested that if concerns are raised in Devonport, the MOD will be pressurised to take the 27 subs to Rosyth
- How difficult is it to transport the 7 RC's to Devonport
- Stakeholder discusses the loss of trident to Devonport
- A stakeholder wanted to know what the economic impact would be if the project came to Rosyth, it was suggested that there is bound to be a benefit in terms of jobs for Rosyth. Stakeholder wanted to know about possible construction jobs for the interim storage or 'cut up' facility
- Other stakeholders added that there may be benefits but at what cost
- Is the scrap going to generate high levels of revenue, who does that go to
- It was stated that Rosyth will be left with the 'rubbish' once the hull is sent to the ship breakers
- It was added that residents are concerned about Rosyth becoming a 'nuclear dump'
- A stakeholder stated that the recent behaviour of the MOD doesn't fill the local community with confidence. It was suggested that if the MOD want local residents to have trust in the SDP then the MOD should show goodwill, and do something about Dalgety Bay
- When will the Scottish Government respond to your consultation?
- Where will the GDF be finally built, will it be in Scotland?

K. Workshops - Linlithgow

K.1. 03 Feb 12 - 11:30 Workshop

Recorded by Alan Ryall, Penny Bryant and Alice James

Mod: Mike Cushen, Nigel Parsons, Christine Bruce, SEPA, Sue Jordan and Lt Cdr Chris Hall

Attendees – 21

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]
13. [REDACTED]
14. [REDACTED]
15. [REDACTED]
16. [REDACTED]
17. [REDACTED]
18. [REDACTED]
19. [REDACTED]
20. [REDACTED]
21. [REDACTED]

- So, there is no agreement on the GDF yet?
- What about the operational boats, will they become part of the SDP before the GDF is available?
- What happens to the SDP if the GDF doesn't become available
- When looking at the initial dismantling how many nuclear licensed sites are there? Which sites did the SDP look at?
- Where are the NDA sites?
- What was the original disposal solution for Dreadnought when it was first built?
- How long has the GDF solution been in discussion, has it been decades?
- What about security when transporting the ILW?
- Does the proposal plan to bring new submarines to Rosyth? So, the dual site option is just dealing with the 7 submarines already in Rosyth?
- Why doesn't the MOD take the 7 submarines to Devonport, they have the facilities to cope with it. I am concerned that submarine dismantling will not stop at the 7 submarines currently in Rosyth Dockyard if SDP comes to Rosyth
- Can you explain about much fuel is left on board the submarines in Rosyth. If there is no fuel left what is the problem for the SDP?

- What is the half-life of the radioactive waste that you are dealing with, answering that would help realise the difference between HLW, ILW and LLW
- How much would the ILW radiation levels decrease after 40 years?
- How are you going to size reduce the RPV? What type of equipment would be used?
- If the RPV is only 12ft high and 80 tonnes why would you dream of cutting it up? Increasing storage ability would be the best option as you should not be cutting up the ILW if you don't have to
- Why can't we use Australia as a disposal / storage option
- But we send nuclear waste to Japan already
- You can't tell me that transporting the 7 submarines to Devonport is more expensive than building a new storage facility in Rosyth
- Bureaucracy seems to be the problem that is causing delay in the final disposal solution
- Group consensus that the RPV shouldn't be cut up
- One stakeholder held the opinion that there isn't a problem with the submarine dismantling project, and by consulting the MOD are '*stirring up a non-problem*'
- However, another stakeholder disagreed and stated that 70,000 years makes it a long term problem
- If you have to cut up, what equipment would be used as dust would be created during the cut up process
- Seems your main problem is where you are going to finally store it. It should be included in this consultation as it is the main problem for the SDP
- If you choose RC removal and storage how long would you have to store it before the ILW has decreased in radiation levels
- Go for RPV removal option as the LLW of the RC can be easily dealt with.
- RPV storage wouldn't be that difficult
- Preference of the majority of the group is the GDF should be made a suitable size so it is able to take a whole RPV
- But one stakeholder states that the GDF is not available and may not be available so the SDP should slow the process, keep the RPV whole and speed the GDF process up before any decision is made
- One stakeholder felt that the ILW should be kept in one place, intact and securely and if something goes wrong it is down to the MOD
- One stakeholder stated that the option suggested is rational, delay cutting up until / if it is absolutely necessary
- What would the requirements of the interim storage facility be? Would the building be radically different from any other type of building / warehouse e.g. shielding requirements
- RAF bomber storage facility could be an option for storage
- One main concern of the group is the safety and security of the ILW, e.g. terrorist threat
- Can you confirm that going for the NDA option would decrease the length of time in deciding and creating an interim storage facility
- Dounreay is being dismantled as we speak. What is happening to their ILW? They have a storage solution already. You are proposing to carry out this work in the centre of Scotland why can't we use a remote site like Dounreay
- I think that it will go to commercial storage site any way

- We should be looking at the MOD solely dealing with the waste, no contractors, like Nirex should be involved
- But they have the skills that the MOD may not have
- Do you have any contingency plans if Scotland becomes independent? What are your plans then?
- Can you confirm that most of the risk to the local population would mainly be in the dismantling of the submarine and not the storage?
- Will having an interim storage facility result in having another decontaminated site. Would it not be financially sensible having one interim storage facility to deal with the waste, rather than two sites
- Would it be intrinsic in the dual site option that there will be two storage sites
- As soon as you have civilian (contractor) involvement in the SDP then there is room for mistake and greed. The SDP should remain as only MOD involvement
- What are the risks associated with cutting out the RPV, rather than keeping it in the RC as whole. We can't make the decision without knowing the risk to Rosyth's population when removing the RPV

K.2. 03 Feb 12 - 13:00 Workshop

Recorded by Alan Ryall and Alice James

MOD: Nigel Parsons, Lt Cdr Chris Hall, Sally May, SEPA, Mike Cushen

Attendees – 12

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]
5. [REDACTED]
6. [REDACTED]
7. [REDACTED]
8. [REDACTED]
9. [REDACTED]
10. [REDACTED]
11. [REDACTED]
12. [REDACTED]

- What are the health implications to the local population when removing the RPV and cutting it up?
- How safe is the submarine after 30 years afloat? Has there been deterioration?
- Group consensus that rationale makes sense of how the submarine is dismantled
- Would the dismantling facility be a 'covered' facility?
- If there wasn't a budgetary issue would you choose to keep the submarines afloat? So, you haven't dealt with it earlier as there wasn't an effective solution available? I'm asking the question as why not before and why now?
- What happens to the submarines until the GDF becomes available? Will capacity be reached before then, will that result in Dreadnought being stored afloat for another 30 years?

- So, you can't start dismantling until the GDF is available?
- Q - Why is the proposal restricted to 7 submarines in Rosyth?
- Q - Why can't the operational submarines be sent to Rosyth straight after they come out of service, are they not allowed to be defueled in Rosyth?
- Which is the most cost effective solution?
- What will the requirements be for the interim storage facility, in terms of security? What are the risks associated with ILW interim storage, will there be risks to the local population? Is there a risk of terrorist activity?
- How serious is the ILW and its radiation levels?
- The interim storage will never be as good as the GDF. The risks will be higher with the interim storage in comparison to the GDF
- What is the different criteria that defines HLW, ILW and LLW
- How many years before the different levels of nuclear waste become safe?
- Is there any where already in mind for the GDF and the interim storage facility?
- Are the NDA site options near to Devonport?
- Are any of the NDA sites in Scotland?
- One stakeholder suggests that the NDA is the most sensible option, others group members have not made their decision yet
- If it is 0.2% of national inventory, if its 80 tonnes and the facilities are available what is the problem that you have. I can't see the problem, the NDA makes sense. Why can't the different Government departments come to an agreement?
- If other countries are ahead of us in what the SDP are proposing to do why don't we learn from their experience and follow suit
- Does employment come into the decision making process? Would it create more employment?
- What effect would potential Scottish independence have on the SDP?
- Would either the SDP or the container terminal at Rosyth have an effect on each other and their future
- Keeping the RPV whole would change the interim storage requirements than if the RPV is cut and packaged
- What is the timescale for dismantling?
- How long will it take to remove the RPV? A year seems a long time for it to be stored at the dock
- What areas were covered in the consultation? Who received the document?
- Is size reduction of the RPV expensive? Are the last two options the most expensive? If you do size reduction now and then the GDF allows for whole RPV storage the size reduction have been a waste of money
- You have to look at the health safety of size reduction, even if it is the most cost effective. You need to minimise the risk to workers

K.3. 03 Feb 12 - 15:00 Workshop

Recorded by Andrew Lester

Attendees – 5

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

4. [REDACTED]
 5. [REDACTED]
- RPV comes out – how is it removed? Is it a crane on the Quayside and where is it placed?
 - This RPV sitting on the Quayside – will it need to be placed into a box? If so, has this been designed and would it increase the amount and size of the waste?
 - What will be the size of the RPV containment vessel?
 - So to clarify – all are the size of transit vans?
 - West Calder bunker could be a suitable store
 - Rosyth could store the ILW
 - When looking for a licensed site – do you see problems with using Hill Forth?
 - Dounreay also suitable
 - Has work been undertaken with the NDA to agree a site location?
 - How safe is the operation to the local population?
 - Would anybody look at stealing the waste? You could just leave it in a store room and walk away as it would be safe
 - Wouldn't want to move 100 tonnes by road.
 - What's the half life of the materials in the RPV?
 - 7 Transits in Scotland – could fit in this room easily
 - What is the priority of the programme? Dismantling of subs ASAP?
 - 2020 – it's a date
 - What's the projected timescale of the Rosyth element of the project?
 - Political changes could prove a problem
 - Happy to have work here even if Scotland goes independent
 - Best option is to dismantle in situ
 - Have any power stations come forward as potential ILW storage sites?
 - Any figures on the costs?
 - Will the NDA charge the MOD to store the ILW?
 - All at the beck and call of the NDA
 - Best option is existing sites, followed by using old MOD purpose built facility
 - SEPA and the regulator – what is the demarcation?
 - How much radiation comes of the containers?
 - Can I store it in my back garden? Figure of £400million a likely starting, not end point
 - At what point does it become safe to remove a reactor?
 - When it is finished clearing up the 7 subs, will the MOD be finished with Rosyth?
 - When did the USA and France dismantle their subs?
 - Why haven't things moved forward in the UK?

K.4. 03 Feb 12 – 16:30 Workshop

Recorded by Penny Bryant and Alice James

MOD: Mike Cushen, Nigel Parsons, SEPA

Attendees – 5

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]
4. [REDACTED]

5. [REDACTED]

- If a NDA storage site is chosen would the waste become NDA's problem?
- What happens if Scotland gets independence?
- If independence does occur then everything goes to Devonport, including the jobs
- Has anyone worked out the cost of dismantling one submarine?
- Is 2040 when the consultation and GDF decision process begins?
- Can the RPV's be used again?
- Is maintaining the afloat submarines costly? So, when the SDP begins it will remove the current maintenance cost
- So is the 'status quo' an option for the SDP?
- If you dismantle the submarine in Rosyth would generate a lot of employment? I think the area needs it. When the Royal Navy left Rosyth the buildings and area was left to deteriorate. I don't have the knowledge to say if your proposals are the right or wrong thing but I do know that the area needs the employment
- Has any other Navy carried out submarine dismantling, RPV removal in particular?
- Discussion regarding Dalgety Bay and how the MOD is not stepping up to the mark in handling the issue. The MOD need to make sure that whatever site you use you need to make sure that it is cleaned up thoroughly afterwards
- The flaw in the SDP is this is a 'test' process and you do not have a final disposal solution in place yet
- What is the SDP's greatest fear about this project?
- It is bad that a decision hasn't been made before about the solution to submarine disposal
- What is the timescale of the SDP, when will you cut up the first submarine. It seems to be a very slow process, can you not speed it up?
- Is RPV removal the preferred option because it is the cheapest option?
- RPV removal seems to be the sensible option. Seems to be a group consensus
- Surely Dreadnought wouldn't be able to cope being transported to Devonport
- It seems sensible that there are two dismantling locations available
- You should use the expertise that is already available with the NDA sites. Why waste money when you have sites available
- Will Rolls Royce be involved in the dismantling seeing as they built them?

K.5. 03 Feb 12 – 18:00 Workshop

Attendees - 3

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

- There is a lot of technical detail, but it appears that there is not much between the three options. The key thing in the SDP seems the storage issue
- I presume that there is a security issue with the interim storage?
- Have any of these options been attempted in the UK before?
- Is defueling carried out in Rosyth?
- What radioactive content would be in the residual water?

- Could the SDP process be used for current operational submarines when they come out of service
- The less intervention with the ILW the better
- Why is the GDF taking so long, surely there are limited options for where the GDF can be located?
- The GDF could be located abroad and it could be a worldwide solution. There isn't a suitable site in the UK
- There may be some technical solution to disposing of the ILW at a future date that you can take advantage of
- The dual site is the sensible option – group consensus
- If the MOD has existing sites, why would you not want to use them?
- If it is about cost effectiveness, do you have indicative prices for how much commercial site storage would be?
- NDA storage does sound sensible but there must be some draw backs, why would you be consulting otherwise?
- Key principle is don't interfere too much or rush into it as you may benefit at a later date from future technology. It's going to be there for a long time so why not wait for future technology
- Are your NDA site options identified yet?
- The security risk of all these stores is a consideration
- Are you working to UK legislation or EU legislation?
- What is the timescale of the project in Rosyth from start to finish?
- What happens if Scotland becomes independent?

L. Workshop - Birmingham

L.1. Initial Dismantling

Session 1, Green Group

Recorded by Alan Ryall and Alice James

Presented by Nigel Parsons

- Will you need to have the size reduction facility available before the GDF?
- What happens to the SDP if the national strategy for nuclear waste changes, your whole proposal is based around this. What if you have to repackage the waste if 100 years has lapsed?
- I think that one problem is the institutional management of the nuclear waste.
- Is it not disingenuous that you say that LLW doesn't need the same packaging as ILW?
- I feel there is no overall strategy.
- You seem 'hell bent' on a rigid timescale. I'm not sure how you match your timescales to 3 Basin timescales?
- It is Government policy that the site where the waste is generated is where the waste is stored in the interim? Your proposals seem to suggest that the waste is moved offsite and stored elsewhere, could you clarify that that is in line with Government policy?
- How do you separate the ILW from the other materials if you are not going to cut it up?
- Is it possible to have some more information on the radioactive decay of the material. What is the half-life of the material you are talking about? A discussion then took place regarding the half-life in relation to the postponement of cut up.
- One delegate raised concerns about the shielding of the cut up process. The SDP have to look at the possible dispersion of material during the cutting up process. What is important is the possible impact on people of dispersion
- Has the age of the RPVs and the different designs been considered?
- Clients need to be informed of the radiological condition of the boats. You have that on record so why can't you release that? They also need to know the marine condition of the submarines. Clients lack the necessary information to make an informed decision about the boats. Why can't the radiological survey be released?
- You seem to have a particular option for RPV removal but there appears to be other options that could have been considered. Can we have more information on your rationale behind the different proposals? One option is whole RC removal, and then process it at a bespoke facility on shore. Another option could be cut up in situ.
- One delegate asked, have you looked at other options, and what was the rationale for choosing and not choosing?
- A delegate discusses shielding and containment of the RPV. When removing the RPV will it go through the Reactor Access House? When in the Reactor Access House will the RPV be 'swinging' around on a mobile crane or will it be on a bespoke piece of equipment?
- A delegate considered the issue of transport with radioactive material on board. Have laid up submarines been decontaminated, after they are defueled, before they are moved?

- What has the fuel performance of, for example, Dreadnought been like. Has there been any leakage or any radioactive material left in the submarines such as in the pipes?
- Is there an additional dose burden because there was no Modex when the submarines were defueled? Crud burden?
- Is there a history of fission product release from the RPV into other parts of the submarines
- Why has 3 Basin run out of space, is the safety case laid out anywhere. Is it due to safety space issues rather than physical?
- A delegate talked about his experience with Tireless, and the fact that you couldn't lift a submarine with a ship lift as it would break the hull.
- A MOD expert clarified, it has become routine to move submarines on heavy lift ships in other countries.
- With the dual site dismantling option there is an assumption that you would transport the RPV's to a single site of storage, away from the site of dismantling? I do not have an issue with the transportation of the RPV's by sea, but I have an issue with transportation by rail and road. It is a lot more marginal than feasibility reports suggest.
- Has the defueling taken place where the submarines are stored?
- Isn't it unsatisfactory that you still have six floating subs with fuelled RPV's?
- Why does this consultation only address existing boats and not future boats?

Session 2, Red Group

- Could you quantify when you consider the cut-off point when it is no longer worth waiting to delay cut up? I assume that you are not discussing the nickel.
- Is the radiological risk not different for a cut up container and a large single piece container?
- It is important to note that many people in Plymouth consider another option could be the storage of whole submarines in dry storage, remote from areas of population. This could have been an option to consider.
- One delegate commented, some of us spent a number of days in Dorking doing options assessment, there was an equal split between whole RC removal and packaged waste among the group then. Why has RPV removal become a popular option?
- Nowhere in your assessment do you refer to accidents and malicious acts, have these been taken into account, and can I see the information? Where are accidents in your assessments? Risk assessment should be in your thinking now, not until you have chosen your proposal? Public perception of radiation is that it is a fate worse than death, and that makes it an attractive target. Accidents and malicious acts should be important from the beginning of the process.
- The group is concerned that the fuelling and defueling should be considered in the SDP process
- There should be a full risk assessment at this stage of all options for accidents, malicious and abnormal events. This should be part of the weighting process
- A concern is storing reactors with fuel in them for a long period of time. Concerned about submarine decay. Is the hazard of defueling increased if the submarines are laid up for longer? Would that have an impact on the dismantling process and the

hazards involved with that? It is urgent that the UK develops a second defueling facility elsewhere if something goes wrong in Devonport.

- Submarines that have been defueled or waiting to be defueled have not gone through 'Modex' scouring and that needs to be taken into consideration. There may be crud left behind if it does not go through Modex scouring.
- Can you decontaminate them as much as possible before they are dismantled?
- I think that it is a bit of a mess that you have decided not to go through Modex process. You should be using a PCD(?) system
- If the vessels are transported to Rosyth have you consulted with the Irish Government?
- How do you get the RPV out of the submarine? It doesn't seem to be as simple as cutting a hole in the sub, crane and then removal.
- Surely RPV removal would take up a lot of dock space?
- You say 95% of ILW waste is within the RPV, has a survey been done so that we know that there is no radiation in the rest of the submarine or outside of the submarine.
- Why has Barrow not been included as a site for submarines that have been defueled?

Session 3 – Yellow Group

- How are you going to get the RPV out, it seems too simple?
- Shouldn't you do the risk analysis before you commit to a solution? The way you weigh options looks at the 'bright side of life' why haven't you done the risk assessment at the same time as the option weighting. Isn't it going to be too late to step back from an option if you do the risk assessment after a proposal is chosen? If you are going to consider one option against another then all analysis should be taken at the same time. Shouldn't the public have this information to make their decision?
- Part of an informed judgement should take into account how valid your risk assessment has been and can we see it? Consultation is dogged with the MOD saying safety is satisfactory, but there is very little detail provided for groups to make a decision.
- Another stakeholder states that the information is available on the internet.
- If the MOD is going to change its mind following on from issues raised at the consultation or later where is the inbuilt system for transparency? How are we going to be engaged if the goal posts (proposals) are changed by the MOD.
- When you begin in depth research of the different options you may realise that one option is not doable, what happens then?
- Option 1 hasn't been looked at terrifically. Is cutting up the RPV necessary with whole RC removal.
- Whole strategy is dependent on the GDF going ahead. You do not know what basic timescale parameters are because of the GDF. Why are you in a position to say 100 years is enough for packaging and interim storage. If Government strategy collapses and you have to remove it from packaging, as it is not suitable for long term storage past 100 years, then you increase the dose burden to workers.
- If we are to choose the safest option then we need to know the radiation levels involved. Have you carried out a comparative study of the dosages and is it published? Where can I find that?

- It is a relatively small issue transporting 20 subs to Rosyth and 7 to Devonport; can we maybe look at redistributing the submarines?
- One factor that should be included is Devonport has higher background than Rosyth.
- Can you make the hole in the submarine for RPV removal as small as possible, and water tight before you move it?
- Can we have access to the evaluation report that discounted Barrow before we put engineering proposals before you?

L.2. Storage of Intermediate Level Waste

Recorded by Victoria Lewis-Stephens and Andrew Lester

Presented by Simon Tinling

Session 1 – Red Group

- Is the reactor compartment completely contained?
- If removed by itself does it form an integral unit?
- What will protect the area around where the RC is placed after initial removal?
- If “chopped out” does it have closed ends?
- Is the contamination inside or outside the RPV?
- Is the inside of the RPV contaminated?
- France and Russia are already storing compartments and these are not situ.
- Tension between a generic NDA approach or a bespoke MOD approach. Would bespoke cost more? And would it take only MOD waste or also civilian?
- If waste were to go to the NDA site, would it be mixed with civilian waste or kept separate from MOD?
- What about other MOD waste? Will it also be stored at this facility?
- When placed at final site what format will it be stored in?
- Will it be stored at a reprocessing facility?
- How big will the hole be to remove the reactor – could it be moved around when out of the boat?
- Does the reactor need to be reprocessed?
- Why does the RPV need to be size reduced? Some others have been stored intact.
- How big will the holes in the boat be?
- Is there a wide range of NDA sites being considered?
- Is it going to be a bespoke or generic solution?
- When known, can you provide stakeholders with the exact timetable.
- What do you mean by generic NDA site?
- Does the options analysis include specific sites?
- Are you suggesting each site should store its own waste?
- How near is safe and what is the distance?
- For Rosyth, have you included the ILW?
- Have accepted the EIA, but at what points will further benefits for the surrounding communities be discussed?
- In Southampton, some locals against submarines. If site unused, there would be a radiological benefit to the local community.
- I thought this was about involved community discussions.
- This is not about the assumption it will take place. It is about how the process will happen.

- Have you considered local prices and processes?
- Any site will need planning approval this would be a discussion for a later date.
- You should be complimented in the way you have examined the 3 options. Size reduction means you would only have to handle the waste once.
- The approach to storage is being re-evaluated. Looking at packaged waste, what discussions will happen with British Energy?
- All UK atomic projects should communicate with one another, rather than adopting separate waste storage solutions.
- Concerned re size reduction, could be a dangerous procedure.

Session 2 – Yellow Group

- Is there existing suitable lifting equipment?
- Storage of waste not difficult.
- NDA vs. new store – which is the preferred option?
- Why is the civil sector keeping waste in situ, rather than storing off-site?
- Is it safer to keep it on-site?
- Should ILW storage be planned regionally or locally?
- Option 2 – will the size reduction facility wait until the GDF was ready or would they size reduce now?
- Argument for not moving them. Don't the Russians just move them by welding the boats together and the Americans move by heavy ship?
- At what point does a decision need to be made regarding a MOD only solution?
- Are you looking at parallel use of the facilities for the MOD and civil use?
- It is MOD waste and must be dealt with.
- Public perception – Devonport 6 subs with fuel rods in and active, then with storage on-site as well, this would be the “icing on the cake”.
- Does the MOD currently send waste to private companies?
- Would this be the first MOD ILW storage facility?
- These storage solutions – are they currently on-site?
- Strategic storage vital. Complete the jigsaw.
- NDA have been looking for six years. If they were going to do something independently, it would have happened by now.
- Why are you trail blazing if you are only 0.2% of total waste?
- Different government agencies should work together.
- Has this impacted policy for GDF.
- Is the MOD in touch with other departments?
- Does it make a difference what form the waste is in as to where it is stored?
- If going for regional, why not do deal with NDA?
- Difference between the perceptions of military and civilian nuclear programmes
- Cause and effect impact of the production of waste. Material separation of both
 - Stakeholders have strong views on nuclear power
 - These are distinct and separate issues
- Is there a difference between the types of nuclear waste produced by SDP and the nuclear weapons programme?
- If civil power has a benefit, could be needed to power country, whereas the MOD programme is an optional extra that is not required.
- The fact we have a choice how to power submarines should be discussed.

- Storage site names not mentioned neither has security. Could be a problem as many civil facilities owned and managed by overseas companies.
- 0.2% by volume argument seeks to marginalise the potential risks involved, it seeks to trivialise the issue.
- Defence ILW – seen to be worse than civilian. Is it different or is it the same metals?

Session 3 – Green Group

- RPV removal – proposal still implies a point for size reduction. Would you assume this would happen at the same location where the item is stored?
- I know there is an assumption for a GDF. How long would it be for the RPV to not be contaminated waste?
- If a GDF does not happen, “interim” could mean “forever”.
- Commercial companies may be interested in bidding for ILW storage, but also in carrying out research on the RPV. Could take the form of materials research and could give indicators to improve future designs.
- Public accessibility could be key to success, if public could be involved, less likely to be hostile.
- Unfortunate consultation takes so long; new factors arise all the time. Plymouth cannot do it all; the middle of a major population centre is the wrong place to dismantle submarines. ILW should not be store in a town.
- This discussion is surreal; the real elephant in the room is what is happening already in a population centre of 200,000 people. The submarines are not de-fuelled and Plymouth is hosting them.
- Is there any progress with the NDA?
- We accept the jobs, this is a necessary evil.
- General public do not understand the process in detail, this group is self limiting.
- There is a difference of view between the way in which the MOD work is viewed and the results of the civilian programme.

L.3. Environment

Recorded by Terry Ryall and Ed Grieve

Presented by Dr Sue Jordan

Session 1, Yellow Group

- Seems a thorough SEA.
- This SEA completely ignores the fact that you’re dealing with radioactivity. Some outcomes of this are significant. I have questions about the options and the risks attached. The ‘do minimum’ option is long term waste storage. The ‘do minimum’ is ignoring the hazard. You have put zero risk on this option. The do minimum is of concern and there are risks. The coastal flood risk and sea level rise risk are serious concerns in the do minimum option.
- Environment Agency: There are some boats which are fuelled in Devonport because the crane was condemned. The Environment Agency wants a new defueling facility. The defueling facility needs to be cleared up by the MOD first.
- Your SEA looks at dismantling as well as ILW storage. You must have made assumptions on where the ILW is stored. What sites are you looking at?

- Your SEA must be sensitive to the sites/ NDA sites. Your preferred option is an NDA site. This should be your working assumption.
- Coming back to the dismantling happening ten years after service. Is that from when the submarine comes out of service or ten years after defueling? If you have ten laid up, six with fuelling, you have four you can work on and then you'll have to come on to the others which are currently fuelled.
- You're saying the fuel stops contaminating things once the reactor is switched off?
- The cumulative effects... Do these take into account what else is going on in the dockyard? This, in conjunction with existing activities, is a concern.
- Environment Agency: The Environment Agency will be very interested in the cumulative risks at the dockyard when it looks into this holistically.
- The findings of the cumulative effects could be perceived negatively (the last phrase used). The expansion of nuclear work in Plymouth creates more risk. There is a significant risk associated with defueling and knowledge about this is growing. The effects on things like tourism and the University could damage Plymouth and an accident could have a severe effect on the city. Defueling and this project could have negative effects on people living on the city (anxiety etc.). The public can't make informed decisions in secrecy. Reports do not drive public opinion.
- Environment Agency: The MOD will have the formal response from the Environment Agency in due course. You say there is no significant hazards and then you mention dredging, this causes other hazards and long term dredging is the most worrying thing for the Environment Agency.
- Some of these vessels are still being produced. Will this project go on indefinitely? The point is that you're focussed on the 27, but there are going to be more vessels in the future?

Session 2, Green Group

- When you did your comparisons, comparing differing environmental factors, did you give all factors the same weighting?
- Does using the same weighting on every environmental factor work as a principle in real life?
- So the judgement call on weighting the environmental factors is just done in the MCDA analysis?
- Did non-MOD stakeholders feed into the way the environmental factors were weighted?
- Who decided the weights of the environmental factors?
- So MOD professionals decided the environmental weights?
- So the MOD picked the individuals who chose the environmental weights?
- Was the MCDA just done by governmental staff?
- I think the MOD is making the same mistake that NIREX made in the 1990s which led to the failure of the repository programme.
- I have a query about the non-statutory environmental agencies involved. Which were involved?
- Are Rosyth and Devonport the only locations being considered as venues for the removal of the Reactor Pressure Vessel?
- If you know the dock and it has the facilities, would you consider it?

- I'm interested to know about the social and health impacts. I am interested in the social aspects; I'm talking about the changes which would happen to the communities' profile and demographics (age, sex, workers etc.).
- You mentioned skills being lost. This is worth revisiting. There's a major decommissioning programme in place at the moment (decommissioning power plants). There's opportunity for synergy and skill swapping across the nuclear sectors. Value can come out of the existing work which can be used to inform this project – proven processes etc. Therefore, skills will not be lost at the end of this project.
- Could you unpack the health situation? When I think of radiation I think of particular health effects such as those on unborn children. What weight has this been given in compassion to say that of the communities' anxiety? How many clinically qualified people were involved when you were thinking about this?
- If you're cutting metal would it put things into the air?
- I think some of these concerns are well founded but if I can bring the conversation back to NIREX, we're currently decommissioning the Magnox reactors. This is near communities. There is proven practice now that the MOD can take when looking at this project.
- Did you have any medical people involved when you brought this study together?

Session 3, Red Group

- You say the submarines are only regarded as waste when they start being broken up. This is not my understanding of the regulations.
- This is an MOD definition then?
- I think we're underestimating the socio-economic effect of having a nuclear scrapyards in Devonport. People view the dockyard as a centre of excellence. As soon as you label Plymouth a nuclear scrapyards it will stop investment in the city.
- Where do you draw the line as regards to risk to one group of people? Public perception is that this has a very negative feel about it.
- You're pushing this project in at a bad time to you because of the incinerator facility. It's not a good time in Plymouth for this.
- These projects (MOD/ incinerator) disempower local people due to their scale.
- I would argue against the cutting up option.
- If it's a simplistic problem, why has it taken some 50 years to get to this phase?
- We were told that the priority was to leave Rosyth as soon as possible. Why is Devonport the preferred site?
- I'm not entirely clear of what research has been done into the economic impact of sending the submarines to private dockyards for this work to be undertaken.
- If you are a ship recycling facility 27 submarines represent a lucrative opportunity.
- The existing ship recycling facilities the MOD is using to currently break its ships should be considered. It's not impossible for private companies to decommission the submarines.
- Will the Environment Agency be looking at changing permitting for ship recycling facilities for the recycling of submarines?

M. Workshop - Glasgow

M.1. Initial Dismantling

Recorded by Alan Ryall and Alice James

Presented by Nigel Parsons

Session 1, Green Group

- Your preferred option is option 2 but on the cost effective graph it is not difficult to see that there is a green triangle close to your red preferred option. The net present value argument is not a strong argument. A delegate agreed that option 2 is cheaper than RC storage; the delegate also agreed that transportation of RPV may be feasible but it has never been carried out. The green triangle is placed not very far from your preferred option, why has it been discounted at this early stage? Early size reduction is safer than the retention of a large RPV. The delegate was in favour of early size reduction as you are doing it straight away and therefore dealing with the problem straight away, and what happens if your hoped for 'opportunities' with RPV removal are not realised.
- The same rationale of keeping the RPV whole for decay can occur in the RC option. The delegate felt that there is some sort of compromise surrounding the choice of RPV removal. From the public's point of view it is more about 'Not in My Back Yard' and not just the technical difficulties faced by the MOD.
- In Scotland there is a different policy surrounding the GDF, how does the different policy affect the proposals and the waste generated in Rosyth?
- When will the Scottish Government formulate its view on the proposals?
- Has there been consideration of the political risk? As this is a long term project, devolution in Scotland is a political risk for the project. Is there discussion within the MOD on how devolution would affect the SDP? So, the MOD is not discussing plans for the removal of nuclear weapons from Scotland.
- Devonport doesn't have the capacity for 20 submarines, how would you deal with the issue, would you expand the dockyard?
- If RC removal is chosen will there be one storage site? The presentation implied that they would be stored in one place, the point of initial dismantling, is that correct?
- Could you explain why you have chosen one storage site?
- Every decommissioned nuclear site in the UK is currently storing ILW in some packaged form, the required storage facility would not be overly complicated in design, I do not fully understand your logic of having only one store, you're talking about having to move the ILW more than once rather than keeping it at point of waste storage. Transportation costs to the one store would surely be more expensive than building two stores at the point of waste generation.
- This is the first time that I have clearly heard that you would only have one site for interim storage, where in the documentation do we see the reasoning behind one site. I have been involved in this project for 10 years.
- Size reduction sounds like a good idea unless you're living next door to it.
- It is not only about cost effectiveness, as community and political issues would be very stark when deciding where waste consolidation in an interim storage site would be. It would be very complex and will take time to reach a conclusion.

- Are you confident that you are able to analyse / weigh up the economic and environmental cost when you are unsure about the interim storage solution?
- This consultation amplifies my concerns as it has identified a range of uncertainties that still need to be tackled e.g. technical and political.
- You will need a demonstrator to check that all of your assumptions before work begins on the rest of the submarines. With the dual site option, do you have a proposal for where the demonstrator will be? There will be a knock on from the demonstrator is sited, as there will be a delay in the other dockyard while their facilities are built. Work wouldn't happen straight away at e.g. Rosyth if the demonstrator is built at Devonport, as they would have to wait for their facilities to be built. So 'cracking on' will mean something different for one site. How long do you think it would take to build the facilities? Concerns surrounding timing.
- So there isn't international experience of removing a RPV from a submarine. So, what is left of the RC container is LLW? Is there an element of uncertainty surrounding the RPV whole removal, has that been considered in the costing?
- Disposal of LLW is an expensive process; it is now common practice for contractors to deal with LLW, have you taken that into your calculations?

Session 2, Red Group

- Your rationale seems to be biased against cutting up the RPV. I would have preferred to have seen a comparison between the different dosages of the options in the consultation document. In that case my preferred option would be RC removal and storage. Your proposal depends on what your weighting is and if you had used my weighting which focuses more on safety / dosage then you would have a different outcome.
- Another stakeholder agrees due to lower worker dose. Feels that lower visual impact is less important than health and safety. I can understand rationale but don't agree.
- Presumably with the RPV option you would still need substantial shielding of the RPV?
- Another stakeholder agrees with RC removal. RPV is an unknown option. RPV will have higher radiation levels and if you are dealing with the RC you have far more shielding so lower dose exposure. It doesn't matter about the size of the facilities, health and safety is what matters. I asked for copy of environmental document, want one sent to me.
- Aside from environmental impacts what about the difference in cost between RPV removal and RC removal?
- In the case of Rosyth where is the nearest ship breakers? Is there a breaker in Scotland?
- Has there been a risk assessment of moving the intact submarines? The idea of moving Dreadnought which has been sitting there for 30 years rings alarm bells. So, you wouldn't have any concerns about moving the submarines out of Rosyth?
- The rationale makes sense but I do not accept it.
- The rest of the group are quiet so implies support for rationale behind proposals....
- Although we are making some probing comments, we are supportive of what the MOD are trying to do, especially in context of Dalgety Bay.
- What I missed in the documents is a bit more about the local environment around the two dockyards e.g. primary schools nearby, as public perception will be important in the proposals.

- Are there any other hazardous materials in the RC that need to be taken into consideration?
- Dounreay and Rosyth were linked with cancer clusters, the only link between two was the MOD. When a site is chosen I would like an additional study to see if there is any more impact to health and why those clusters exist. I'm not that happy with the way things are regulated at the moment, SEPA and ONR are ok but I would like more analysis as those groups are linked with the nuclear industry, I would like an academic study as well as. Regulations are there to allow the industry to proceed and protect the public as best as possible, I would like more.

Session 3, Yellow Group

- Would recommendation be any different if the GDF wasn't available? If GDF wasn't available by 2040 would you be tempted to package the waste quicker. What if the community around the GDF wouldn't accept the GDF in the form of allowing for whole RPV storage? It might be viable with the NDA or DECC but what about the community refusing whole RPV storage.
- The rest of the group is quiet, implies that they agree that the rationale makes sense.
- Even if the waste is 0.2% and a small amount of the national inventory, that doesn't make a difference to the local community.
- If RC was chosen over RPV what impact would that have on dual site rather than one site for initial dismantling?
- Based on cost why would you move 20 rather than 7 RC / RPV?
- Would choosing RC or RPV change the method the way you would move it?
- I don't think that it has been made clear in layman's terms of why the RPV is the preferred option over RC.
- What is the timescale when the submarines will be scrapped? What happens with operational submarines coming out of service? So Rosyth is only doing the 7 and will then be open for commercial use?
- I couldn't argue about the way it is being dismantled but I would argue about where the waste would be stored as we (Sellafield) would be getting the backend of the project and none of the benefits e.g. the jobs. I feel that there isn't enough information surrounding the ILW storage sites for us to make a decision about the proposals.
- Are you breaking the hulls at Devonport, if not how are you transporting the hulls without dredging? So with the RC in them the submarines are able to move without dredging?
- Would the breaking take place at Rosyth?

M.2. Storage of Intermediate Level Waste

Recorded by Penny Bryant and Ed Grieve

Presented by Simon Tinling

Session 1 – Red Group

- We heard how the preferred option has been arrived at. This option is partially to do with cost. How do you work out a cost if you don't know the solutions?
- The assumption is made that there will be a GDF. This is a big assumption to make. The discussion on a GDF is interesting as the community hasn't decided if they want

one. The community may also reject waste from submarines. (DECC – we are working on the volunteer system and we have to make assumptions/ NDA – this isn't the only project which has to make these assumptions)

- Have the costs been looked at for the 100 year storage option?
- The cores have been removed in Rosyth. Have they been stored there?
- Why are we looking for other storage sites if the cores are at Sellafield? What sort of volume are we talking about? And what type of packaging will you be using for the cores?
- Is all the waste and debris from the currently commissioned submarines going to go to the same facility as the waste from the decommissioned submarines? There is a lot of worry about this going wrong. A mistake could destroy things such as food chains. No one will want to visit. Why are we insistent on building more submarines?
- What do you mean by a 'privately owned site'? You say you'll consider these.
- What is the timing and practicality of the joint MOD and NDA storage option judgements? What timescales are we talking? (NDA – explains how this works).
- Is there an indicative timeline for choosing a site?
- There is a suggestion in your document that wherever a store is built, future submarines would be dismantled/ stored there. There is a preference for a facility that will accept future submarines' waste.
- People may give more weight to the intermediate stores. People will be more interested in intermediate facilities. Given the possibility of the failure to design a GDF the waste could be stored in these facilities longer. People may well not be able to take a view on this issue as there is not enough information to make a decision.
- Does 'NDA sites' include all NDA sites? Dounreay for example?
- The RPV removal option. Would RPV storage be within the Rosyth fence? Or would the RPV get moved along the coast and stored there. Crombie?
- Is Crombie actually licenced?
- Where does Vulcan fit in here? Rosyth is not a polluted site at this point in time. Why destroy another part of Scotland when there are other sites?
- I'm very sympathetic to this. Pass-the-parcel and NIMBYism have ruined the process. We need to get a positive strategy in place to give people confidence. The people who should know what is going on are giving options. This is concerning. It seems to me that you've got sites, but can't use them because some people say you can't put the waste there (you can't take waste across Scotland by land etc.). I'm concerned because the experts aren't taking the initiative. This is causing us to go around in circles. We're just discussing it! If you build a building to house this waste it'll be massive and will fill up with pollution. We need to discuss the pollution of our countryside.
- You are looking at underground storage. Can you explain to me why the Americans spent billions of dollars on an underground storage facility and then abandoned the plans?
- The biggest question is where the waste will be stored. We need to get away from the idea that the Government/ NDA are in control of the GDF. The future of the GDF is in the hands of the community. So I would ask that the MOD recognises volunteerism and community benefits. I would ask that you look into the volunteerism process during the next round of consultation. You cannot ride rough shod over communities. There has to be an open and transparent process where the community understands

what is being asked of it and what compensation can be received. I sit in many consultations, in all fairness you need to think about the entire community perception.

- Fife has had its own local consultation on this. The residents do not want the waste stored there. Where is the final storage going to be? You're at a halfway stage as we don't know the proper message from the NDA/ MOD. If you could say this is going to be the final solution/ this is where the storage area will be, the community can comment. You are encouraging residents to say 'no'.
- You wouldn't be pursuing the volunteerism process if you didn't know that some communities would volunteer.
- I think you should have a look at what the MRWS has done so far.
- When you say that no dismantling can take place before a decision has been made. Does this include the decision on site selection?
- When do you need to start dismantling the submarines?
- The deadline for a decision on the storage solution would be by 2020?

Session 2, Yellow Group

- Can you confirm that the arguments you put forward to store the RPV's are based on cost rather than technical feasibility?
- Is there a timing issue in terms of when it may come to a consultation on storage?
- The ONR are not going to let this go ahead until there is a storage facility in place. Local authorities would not grant planning permission without knowing when the GDF would be ready to take the waste.
- Do you think the arguments about storage are more likely to be influenced by the local communities?
- It's similar to civil waste in that it's a case of 'we've made a mess and we need to clean it up'. A lot of the people who are opposed to civil nuclear waste feel that this is a double whammy as they are opposed to nuclear submarines.
- Is the volunteerism approach being considered?
- Is 2020 the date by when you need a decision?
- If you see 2020 as a deadline and you're not going to start until you have a solution, you may not have a GDF for 40 years. You'll be hard pushed to hit that target. This waste is going to be moved away from where it is produced. It's worth while exploring options such as volunteerism now as this is about what is acceptable to communities. Volunteerism should not be explored after a site has been identified as community acceptance is just as important as cost effectiveness or technical issues.
- The committee as a whole did not recommend volunteerism. It's a new concept; you should not be looking at volunteerism after. It's a novel concept and it's worth exploring.
- It's a big deal for the NDA to take on military waste. The relationships we have with our sites are based at civil liability. The NDA is clearly an option
- Why would the NDA's treatment of waste created by the military be viewed as different to treating civic waste?
- If the NDA is working with acceptant communities, if residents are told that military waste is coming along with civic, would residents see this as a bad thing? Perception depends on so many factors, where they are, what comes with the waste (jobs) etc. The communities around any nuclear facilities are polarised. To have a community feel is very difficult. Public consultation is about spreading information. For a lot of us

it's the only chance we get to talk to the MOD, so it shouldn't always be just about public consultations.

- The website is only any good if people are looking for the website. Unless you make people aware of this, they won't access the website. Local media should be used to spread information.
- The Fife and Plymouth communities have been very well engaged during this consultation. If you go down the NDA route, you will find a lot of communities which are not well informed about this. How many people in West Cumbria have been engaged?
- If you name a site which has nothing to do with this process, you open a whole can of worms.
- If the decision goes down the NDA route, getting the discussion through existing lines of communications going early is key.
- Are there any private site options?
- One of the issues that have come up is 'waste miles'. Why would you choose a location that means the waste will cover a serious amount of road miles? Should this criterion be factored in?
- Why would you only consider one store?
- Is the storage option the key critical path in this process? Has the consultation started in the wrong area? Should you have started by consulting on the storage site, then on the dismantling process?
- It's clear that there are communities that will accept the dismantling, but not the storage.
- If the disposal was resolved, would storage be a problem? If GDF construction was underway?
- Interim only becomes interim when the GDF is underway. At present, interim means forever (indefinitely).
- Even if the GDF progresses, it still might hit a problem. Look at the storage facility in America.
- There is a danger that we will turn this in to something it is not. Taking apart submarines is something we do every day. We need to demystify ILW stores and remove misconception.
- One of the issues with this consultation process is education. People should be told more about submarines and nuclear waste.
- People should be told that this waste isn't as bad as the waste created by power stations, but I guess you don't want to tell people this as some will get on your back. There are a lot of things that people don't know about. Finding a way forward with this could open more cans of worms, but that must be good as you will take residents with you.
- There are a lot of people in Plymouth worried about defueling and refuelling. If they were to take the dismantling project the community was looking for benefits such as the reduction of other radioactive activities on site.

Session 3, Green Group

- Is there going to be a joint MOD/ NDA assessment published for us all to look at?
- Is there a backup plan if you don't succeed in bringing forward a joint site with the NDA?

- If you used the NDA's facilities, would you be paying the NDA money to use its facilities?
- We have an ILW store at Hunterston , but there is no appetite in our area to take any other waste from elsewhere. How are you taking this into consideration?
- The reality that has to be accepted is that, if this goes ahead, there are a number of options for storage, but the same question applies to all sites; that communities will have to buy in. We need to look at this waste in context as a percentage of the overall waste generated. There is a perception that MoD waste is bad waste and civic waste is not.
- The facility that is at Hunterston was given planning permission on the supposition that it would only be used for civic waste. For Hunterston to become Scotland's regional waste storage facility is a big step.
- One delegate stated, I'm more attracted to the compartment option, but I'm worried about how you could transport them. You say that they transport compartments by barge in the States, but is it really feasible to talk about the transport of these compartments by sea? The Atlantic and the North Sea are not very friendly.
- The section of the aircraft carrier moved down the Clyde to Rosyth was very large, but it was done safely.
- So you reckon movement by sea is doable?
- Throughout your document you talk about geological disposal being the end point. This could happen long after 2040. Is there a timetable for geological disposal and is this project in this timetable up until 2075?
- What sort of priority would this waste get? Plenty of waste at Sellafield must be higher priority?
- Your indicative timetable suggests that the interim storage decision will come in 2014. Are these timescales in anyway realistic?
- Are these bodies able to handle this? The NDA has already cut down on its workforce. You're left wondering, as a member of the public, are these bodies robust enough to deal with this project? Its staff base is being depleted.
- I assume that the community accepting this waste will be given some of the money paid to the NDA for storing this waste?
- In some areas, if there isn't benefit, communities would not volunteer.
- Is Chapel Cross no longer an NDA site?

M.3. Environment

Recorded by Terry Ryall and Andrew Lester

Presented by Dr Sue Jordan

Session 1 – Yellow Group

- What will happen to the cooling water from the submarines?
- Does the ion exchange method form part of SDP?
- When was the coolant water discharged from the submarines and did this occur at both sites?
- RPV removal – if separated into parts, it could result in more discharge. Also, how does this impact the storage facility?
- The SEA – does it only cover the initial process?

- I'm surprised you didn't mention Scottish Government policy on disposal of waste. It will be interesting to see what they say about waste going to Cumbria.
- RPV removal in one container preferred, keeps all the waste together
- Talking about storage sites – are specific sites in mind?
- How many remote sites are being considered?
- When are you expecting to get the NDA results?
- I got the impression the NDA were preparing a suitable sites list.
- Nothing will be done until the entire process has been timetabled and agreed
- NDA stores – not all are suitable. Are you suggesting they are all suitable or only some of them?
- Option 3 could mean we could sit on the ILW store.
- Want to see more information re rates of decay and the relevant diagrams to explain half-lives. Where are the decay curves?
- Would like to see the dose level that is predicted for each worker.
- I didn't realise all of this information was available, I will look at the website in more detail.

Session 2, Green Group

- Scottish Heritage are keen to ensure positive approach and pursue mature regulation re disposal facilities.
- Generic assessment undertaken – keen to know HRA findings.
- Some finding will impact upon the SEA – should inform the final document.
- One delegate struggled to understand and have confidence in transport assessment - how did you decide it was suitable to transport waste when you haven't even decided on the final location it will be transported to?
- RC separation and retention as single unit appears to be the best option.
- Slight difference in inputs depending on if you move it 2 miles or 200 miles from original site.
- Were any of the effects of movement weighted in any form?
- In summary of 4,3 (Environmental survey) are you saying the impact of a store is the same as the impacts as an initial dismantling facility?
- Just how much can you summarise things?
- You could refer people to the more limited element. I find it worrying that it may not be completely accurate.
- The general documentation shows the difference in radiological impacts, but suggests they will be regulated, so will actually be the same.
- Potential for more risk if size reduction is adopted. Assessment seems to "cover up" the potential risks that could be generated.
- Are you suggesting the MOD has developed a system that does not have any impact on the surrounding environment?
- Options 1 and 2 keep the worker doses lower, which has to be positive.
- Reports touch on socio-economic benefits for the area when dismantling, but not on any benefits for the area in which the water is finally stored. The only positive mentioned has been jobs when dismantling, will there be community benefits for the storage site?

Session 3, Red Group

- It was not clear if there were any weightings placed on any of the 14 topic areas presented and discussed.
- One point on Reactor Compartment cut and store option. Both reports suggest an issue with this. You could just weld the boats back together to move them after the RC is removed and suitable cranes are already in existence at Rosyth to facilitate this. You will not need to dredge Devonport under this option.
- Just weld them back together like they do in the US.
- It is a very thorough document, it has been done quite well. Do have concerns re criteria of "significant".
- Will you undertake a strategic level assessment to look at possible other stage solutions?

N. Sticky Notes

Below are the transcribed comments from the post-it notes from the workshops. The scanned originals of the post-it notes are available online as separate files due to the file size. Hardcopies are available on request from the project team.

N.1. Plymouth Workshops

How

- You should not need to say nothing will start before a solution for storage is found – that should be given as red.
- We are not the only country that has dismantled submarines. What do others do?
- Previous consultation fed in to this one.
- Are you going to have to apply for increased discharge – permission to release?
- What are the benefits of not cutting up the RPV?
- If you take the pressure vessel out of the hull – what happens to that centre piece of the boat? Is it recycled like the rest?
- What happens to the rest of the RPV when you remove the piece?
- Is there an associated risk with going into the RPV? What facilities will be required?
- Do not cut up. It's the best option with little/ least impact.
- What have other countries done?
- Would the dismantling happen on a boat by boat basis?
- What are other countries doing? Are they cutting out the reactor compartment?
- What licensing would u need to do this?
- How confident are you the NDA solution will happen?
- What capacity is there in the UK to take the ILW? How much can we take before there is a problem?
- What are the risks cutting up what will be left on the boat after the ILW has been removed?
- Would it be the older ships be tackled first?
- I can see the sense of minimising of not cutting up at Plymouth.
- I am concerned with safety, I am worried Plymouth will stop being an active naval base if we do this.
- Struggling to get my head around what the drive is to do something about it now. Why can't we wait until the geological disposal site is ready.
- Is there anywhere else in the world who could undertake dismantling?
- Is there a higher risk of contamination if we cut it up?
- If you cut the hole to get the RPV out does that mean you can still float it out of the harbour?
- Is there any time delay between removal + take from site?
- Option A would provide more containment?
- What's the half life of the materials in there?
- Option A would provide more contained situation, why was it dismissed?
- Is there any time delay between the dismantling + storage?
- Do it by the safest option.
- Would we accumulate waste prior to storing?
- Are there other parts of the submarines that are radioactive?
- What is the level of sickness of submariners?
- Later submarines will have different reactors. Will this impact on transport/ storage?

- If the submarine is kept in tact + things are contained it sounds safer + there is less chance of things going wrong.
- Is cost the only consideration?
- How is also key because people don't understand the risks.
- Are there more submarines coming?
- No support for the cutting up facility – concern over broader scope creep for nuclear cutting up.
- Concern over storage capacity if we keep the reactor in one piece.
- Don't cut reactor compartment up, keep it in one piece.
- More confident if it is left in tact + not cut up.
- There are a lot of advantages keeping the vessel in tact.
- Is there a capacity issue with storing the submarines? Not cutting up the middle section does that cause us issues?
- How would we handle that if we keep things in one section?
- Some questions on transportation + the feasibility of transporting the RPV.
- Transportation is a concern. Size of the thing being transported is problematic.
- Taking rods out is dangerous!
- How the dose level is managed is key.
- Concern – general safety.
- More activity more potential for leaks etc.
- Query over how we are factoring the cost of building dismantling nuclear submarines in future.
- Concern over terrorist threat – how could a terrorist use the radioactive waste.
- Safety concerns – higher the level of activity, the higher risk...
- Potential hazards need to be shared with the community clearly. Outlined in the consultation and in the FAQ.
- How are we protected against natural disasters?
- Will people in Rosyth be given an opportunity to consult?
- Do we need a special facility to cut up? Or do we need new facilities?
- Local unemployment – will this create new jobs?
- Don't cut it up + don't store it as waste where there are people.
- Why can't we do what other countries with 'N' powered subs do?
- In the long term could we not go to the US?
- What size are the boxes going to be?
- I'm trying to understand the period of time [illegible] may have on Plymouth. From start to finish including cleaning up of the site. Possibly 2+ generations.
- Have you decided how it will be transported?
- Where does the nuclear water go?
- What risks to health, e.g. cancer?
- This is premature as you don't know where you will store it.
- Paramount issue is Health & Safety.
- Is there any other intermediate level waste outside of the RPV?
- Will technical demonstrator go ahead?
- Trying to move old reactor sections is a dead duck.
- If storage is dependant on NDA acceptance is default back to cutting up.
- Ian Avent - If RPV storage is not viable is cutting up the de-fault position?
- Ian Avent – Tech demonstrator? Where and when will facility be built?

- Always need to be aware of the people when looking at dismantling when it comes to dose rates.
- What is a definition of ILW?
- Safety must be paramount
- Do we have the people trained to handle the work?
- How long will the submarines be kept before they are dismantled? (a planning assumption of 10 years was shared with the room)
- Stop building in Barrow until dismantling solution is determined.
- None of the options are acceptable.
- Cost should not be an issue.
- N. submarines are still being built – with no plan for disposal.
- What are the hazards associated with removing the RPV and going with this option.
- Incidents happen, we need to make sure that this doesn't happen in the future.
- Take submarines intact to custom built facilities (for storage). Use a floating dry-dock (custom built) for transportation. Within options – the least invasive (leave reactor compartment intact)
- Will we tow the two bits to a ship yard if we remove the whole section – that will be very expensive.
- Create/ build a facility that allows us to not have to do anything. Take them out of water.
- Concern over the risks associated with atmospheric releases at Plymouth.
- Which 'how' option has the least risk?
- The best option is the least invasive.
- None of the options are acceptable, come back with better options.
- This should be done to the ultimate safety.
- Tow intact to a custom built site in a remote site away from centre of population.
- What is meant by safe.
- Presentation did not have a lot about risk management.
- Does RPV option increase the risk of atmospheric releases.
- If we remove the centre does that mean that the 2 ends will be welded together for transportation by sea?
- Removal of submarines in tact – do not cut them up. Find a solution that allows us to keep them whole + store them whole out of water.
- Agreement in storing the whole pressure vessel from the room.
- It's a safer way to do it – makes it clearer.
- Should say its safer to wait until later before cutting up.
- Why delay the cutting up – it delays some of the activity to a future generation which you say up front.

Where

- What side space would be needed?
- Who does the work? Babcock found to be incompetent at asbestos.
- Are these more jobs?
- I'm not interested in Sellafield, I live in Plymouth.
- It's not about cost, it's about safety + health of people of Plymouth
- Why are the subs lying in Plymouth?
- Away from centres of population.
- Why not Portsmouth?

- Away from centres of population.
- Politically Edinburgh/ Rosyth has more influence.
- Nuclear waste should be stored in as few centres as possible, therefore bringing together as much civil and military nuclear waste into safe containment away from centres of population.
- Will SDP still go through local planning?
- Ian Avent - If the dual option is adopted, what would be the split? 50:50 or 20 @ Devonport, and 7 @ Rosyth?
- Different class of submarines how different is the size of reactor pressure vessel or in each class?
- Does Devonport have storage facility for all reactor pressure vessels or will the program stop if they cannot be moved?
- Radiation monitoring will the Devonport facility be able to cope with large amounts of Intermediate Level Waste?
- Will the subs at Rosyth be handled up there?
- Which submarines will be dismantled first, oldest – newest?
- Not have it here, fear will drive people.
- Good to use & maintain skills – Devonport.
- Removing components from SM's is dockyard normal business – does have the experience.
- You have to compete with asbestos – how can we trust you?
- All the good stuff goes somewhere else + the rubbish stays in Plymouth.
- Where will waste be stored? Need local agreement. Dismantling is normal business.
- Stuff you read in the newspaper, e.g. Japan, raises fears. Need to stress this is a lump of steel.
- NDA solution, MOD solution, are only 2 options.
- Reactor section is surely too large to move.
- Ian Avent – What degree of confidence do we have that the RPV package will be accepted into the GDF?
- Concerns around moving old subs from one location to another.
- Cost of dismantling must be taken into account.
- Could the Scottish parliament stop us from dismantling in Rosyth?
- We are trying to drive private business into Plymouth. The public perception of safety in Plymouth will impact our success in doing that.
- Will the submarines from Rosyth be transported to Devonport.
- Scottish independence, what impacts?
- If facilities are developed at Devonport will we be likely to exacerbate/ increase on dismantling?
- Query over whether the facilities could be used for other industry waste.
- Supportive of the rationale behind the dual location – avoids moving.
- ILW storage – could the site be here? What are you pushing for? What is the ideal site?
- Where is the most important point?
- General concern over having submarines in high population areas.
- Concern over the incinerator already being proposed – is it being used for burning low level waste?
- Longer term concern with storing at Devonport.

- What can the MOD do to give the safety assurance? It needs to be kept simple, but don't trivialize.
- Safety is the key thing – If you guarantee safety the location/ money/ politics doesn't matter.
- Concerns on effect to the environment, i.e fishes/ wild life. Does not want to see the area becoming a dumping ground.
- The radiological benefit needed is for there to be an end to nuclear submarine use & building. This problem should not be perpetuated – we need to see an end in sight to approve SDP.
- Concern over whether Plymouth will just become a nuclear dismantling site.
- Will safety ever be impacted by new political parties?
- Scottish independence. Local unemployment levels (jobs involved locally).
- Who makes final decision? How much influence does the local population have on the final decisions?
- Are there any idea as to where the final GDF will be?
- Wanted to understand decision making process. Good proposal with a lot of thought.
- What is our local MPs view?
- What are the hazards? What is the risk of airborne pollution?
- If we carry out this work would there be added benefits as possibility of getting additional service activity?
- People are concerned about the socio-economic impacts of this – that consultation should be lead by the city council.
- People are concerned about the social economic issues. The economic factors will drive public debate.
- Politicians need to be more involved + take their responsibilities more seriously.
- Jobs:- this does not generate 'new' jobs. So where is the benefits? People are under the impression there will be more jobs.
- I am convinced about the skills of people in the dockyards. I am not qualified to make an independent judgement.
- My concern is the socio-economic future.
- For a small number of jobs we are committing to a long term future of nuclear.
- Local health is already poor.
- Regulation is another concern how do I know it will remain the same?
- Will additional 10 boats set the right 'decay period'?
- Ian Avent – What happens when the boats coming out of service for dismantling do not have the 30 yr time lag in afloat storage?
- The gap between best practice and people perceived understanding of safety measures. Need to start from basic public principles how they see it.
- Storing waste in Plymouth will have a negative impact on inward investment.
- Concern over the political rationale for the decisions.
- Babcock – are they influencing decision?
- Are there any non-active nuclear sites that can be brought into use? i.e. Brownfield sites?
- Is the site at Rosyth on the East wind?
- 'Cost effective' has come up 3 times, it boils down to money.
- How long will it take before decisions to be made.
- What was meant by sustainable development?
- Who are the regulators? + authorities?

- What is the decay rate?
- How does option 2 preserve option 3?
- How long will it stay in the ground?
- Some local people have no confidence in Babcock Marine.
- Will Babcock concentrate on profit in preference to safety?
- Health + Safety.
- Very concerned over the perception emphasise the difference between the three type of radioactivity.
- Political importance of Edinburgh that might influence decisions.
- Are these any financial contributions coming to the city as a result?
- Concern about health.
- Government will give financial compensation to the city if we accept the SDP at Devonport.
- Emphasise the different types of material that are radioactive.
- Politicians not taking their role seriously.
- Store waste away from centres of human population.
- 10 here, 7 in Rosyth, 10 to come. Will it be 7 in Rosyth, 20 here (Devonport) = (yes is recommendation accepts) You're not listening to the people of Plymouth.
- If you hear the siren, first thought is 'nuclear accident'.
- Materials.
- What would MOD need to do to convince people?
- Not do it here.
- Don't cut up here.
- If you move the submarine and did it somewhere else, what would the options be?
- Would we be able to do this at Barrow?
- Concern over where the waste would be taken.
- Are you looking at keeping the ILW in Plymouth?
- It makes sense to dismantle where the submarines currently are.
- Transportation – Terrorist risk needs to be considered. Transportation is always vulnerable.
- People today are more aware of environmental impacts, so reassurance that Plymouth is not a nuclear dump.
- There could be a strong negative impact of future business prospects for Plymouth.
- The process must be transparent.
- How will it affect issues for the future? E.g. marine conservation, tourism, environment, commercial impact.
- Spent fuel rods are sent to current MOD locations – can the ILW?
- Main concern is not cutting up at Devonport.
- Question over whether the geological site will be in Plymouth.
- Is it risky to transport waste? Is that where it would be vulnerable?
- Just 27 UK subs? What about the other UK subs? What happens to the facility after the 27th sub decommissions?
- Concerns around long term health associated (potential) issues. Public view nuclear is a contributory factor to cancer clusters etc.
- Concerned that potentially materials could be stored in Devonport for a long period of time.
- Why cant this be done away from centres of population?
- This will open the door to ongoing nuclear work.

- As part of the safety case would you have to take into account flooding? – Concern flooding.
- Large concern over storage in Plymouth.
- Store away from people.
- Have you decided how to transport? Rail, road or sea?
- Why can't this be done in USA?
- Do not do this in the UK. Keep it away from people.
- Why can't we ask the US to store on our behalf?
- It would be best to store away from people.
- This means UK won't be free of this until 2043 – 1.5 generations.
- No way you can convince me it's completely safe across the street from school.
- Concerned with storage in Devonport. Primary concern safety, human error.
- Where is the geological storage facility?
- Between now and 2040 where will the material be stored?
- Where are you going to build the storage site?
- Why is there not an option for Rosyth to take all the submarines that are still in service, when they come out of service?
- Rosyth is more remote. Do it there.
- Defuelling the subs is the difficult part, that already happens here.
- Do not keep the storage in Devonport.
- Whilst the refit work still gets on here, the dismantling work here will always be an option.
- Can't be left as they are but need to have something done to them because of corrosion.
- In present economic climate, if we don't want it here, I would suggest Rosyth would want it with open arms.
- Temporary store in 3 basin with material surrounding it.
- There is an option to drain 3 basin and fill up basin with something. Long term storage where the radioactivity is absorbed by what they are covered in. Don't move & dismantle, stores on a long term basis.
- Operational submarines should come to Plymouth when they come to the end of their service.
- Process for storage is very expensive for the submarines currently.
- Will safety cases be published?
- Would you have to dredge the Plymouth Sound?
- Please not in Plymouth, for the sake of it being 'cheapest', 'cost-effective' or 'best value for money'.
- Please end all nuclear activities in the city.
- How can we guarantee the scale as there are currently issues in projects in other countries.
- What is the impact on jobs in the Plymouth area if we do, or do not get the project as part of the dismantling project?
- Take the nuclear activity out of the populated area.
- The geological facility. In Finland there have been problems. How can we guarantee the site will be ready in 2040.
- Ghost ships in Hartlepool is a concern.
- Concern over the impact of having inward investment + jobs if this takes place at Plymouth.

- If it is accepted that waste shouldn't be generated then facilities should be closed in Plymouth.
- Location of population should be a criteria. Better to store away from large population.
- ILW has the strongest implications for Plymouth because of close proximity of residents living nearby.
- MOD should acknowledge storing away from population lowers risk.
- The most important issue to me is the storage issue.
- Are you talking about a facility for only one type of ILW?
- Not in a city.
- Remote from population.
- Keep private section away (less accountable).
- Don't cut costs in transport.
- Consider incinerator.
- Poor already disadvantaged community (including poor health)
- The R.M. military facility (to be in Camels Head).
- Don't make Plymouth the Sellafield of the South West. Don't store ILW @ Plymouth.
- Zeolite? For the subs to be stored in.
- What is real time weighting of cost & technical considerations? Particularly compared to overall defence budget.
- Concern over transportation 'Is it safe' does it add to risk of contamination?
- I would be interested to know where the Greenfield site is. Do you have a Greenfield site or Brownfield site in mind? It looks as if you have not looked at Greenfield/Brownfield sites at all.
- 3rd option – could we look at an alternative location closer to storage?
- Concern over the fact that Plymouth is the dumping ground.
- It already is a dumping ground. This will make it worse.
- Figures on what is being consulted on would be useful.
- Cost analysis on the cutting out the RC. Is it more expensive to move as a whole?
- The view is that Plymouth is already dumping ground and this will add to it.
- Have you done a cost analysis for transport of RC?
- I feel that some of the figures are missing from consultation documents which would enable public to make more informed views.
- Is there a proposal to transport waste by road? Does this add to transport regulations?
- What happens to subs if they are transported to Rosyth? Do they need to be dredged?
- Would there need to be new facilities built at both sites?
- I wish we hadn't got them + that we stopped building new ones.
- Are you satisfied security aspects are ok? (terrorist risk)
- There is no different to what we do here now. I don't see what we argue against here.
- Surely the biggest risk is Babcock applying for a ship breaking licence – that's what we should.
- Will Babcock apply for a ship breaking licence? Would it not make sense to do it all here?
- I am concerned about the rest of the naval fleet. Does taking on this activity leave the risk we will stop doing active naval duties?
- Employment – Will this create new jobs?

- You are already transporting safely by rail. Why can't you just do that with the whole piece?
- What's the life span of a submarine?
- Don't store in Plymouth on an interim basis.
- What will the visual impact be on Plymouth if you build an ILW store here?
- Concerns that current 2 sites being looked at are owned by the same company, so no competition.
- Which site would be used for the demonstrator, as this decision may lead to the location being used for the end point.

Which

- John Davey: Could terrorists get into any radioactive store and use radioactive product for terrorist use?
- I have confidence in the experts that they will do things in the safest possible way.
- Security (terrorist activities) is also a concern to the room.
- We have no say. What government decides is what we have to go with.
- Will everyone (public) views inform the decisions?
- How far from where the waste currently is will it be transported to? It should go to the closest site.
- How long will waste be safe for when stored at GDF?
- How do you feel about the transportation of nuclear waste?
- It should go to the closest place – transportation should be minimised.
- Storage facility should not be in Devonport.
- Why can't we dismantle the rest of the hull in Devonport?
- You just talked about a trial run. Which site will that be done on. I am concerned if the trial was done here we'd end up stuck with doing the whole dismantling project.
- Some leeway in project cost should be part of the project planning.
- Should the cost implication with determine value for money take into consideration rising costs?
- Why can't we remove the confidential elements + then send the submarine to specialist facilities (mention of the US as an option)?
- If its expensive to move why will they need to be moved to breaking the ship up?
- Concern over perception of nuclear 'activity' in Plymouth. Will it affect commercial investment plus tourism?
- Do people really understand the implications of this? I don't believe people really understand what goes on at Devonport full stop.
- Is there any evidence that jobs have been affected where this had been done elsewhere?
- How will political position an nuclear in Scotland affect this programme.
- Concern over human error, the more its handled the more its moved.
- It's a shame its not going to generate new jobs.
- Will this generate employment – it will sustain employment not generate new jobs.
- These storage facilities exist – but what matters most is a transparent process that is carefully regulated + stored properly.
- If its so safe why won't the US take the submarines?
- Business investment would be impacted if we did this here.
- I have a preference for the work to be kept local or the breaking up of a ship.

- Concerned that both sites being looked are owned by the same company. You said you wanted it to be competitive, how can it be when Babcock are the only option.
- Long term employment would be impacted by doing this here if companies/ tourism was affected.
- More it is handled creates increased risk.
- Security issue and reassurance of these to be public needs to be communicated.
- Security: People stealing materials (including workers).
- A material consideration would be what actions would need to take place in order to create the space at individual sites.
- Consultation needs to be made more personal and relevant to the individual.
- Prefer that the work is kept local. Concerned that the net effect on long term economy would be negative.
- When will the 6 subs be defuelled?
- How long does it take to defuel a submarine?
- Can you confirm that the 10 subs will be stored for 20 years? i.e. length of time before sub are cut up.
- Can we agree that that half life of cobalt 60 will not change?
- The location of RPV is an important factor.
- Have you looked at Brownfield sites?

Rationale

- You can't carry on leaving things. Delaying would make things harder.
- Why do we have to do it?
- Got to go forward so needs to be addressed.
- The rationale makes sense. The information is reassuring, providing we are being given complete picture.
- I don't believe that this will have an impact on education, housing and business.
- It has got to be done/ go forward. It is best to attack it now.

N.2. Dunfermline Workshops

How

- At the dry dock would there be a shield out around for containment?
- Are we talking to other countries?
- How long would the ILW be on site, until it is removed to remote location?
- Could Rosyth end up not being included as an ILW site?
- Is there any plans for the current waste at Rosyth to be moved on?
- Are you going to ensure that you do not put safety into compartments, but that all strands will be brought together?
- It would help if you could relate the dismantling process to some kind of domestic process like plumbing. People would understand that.
- The human element worries me. Processes must be in place to keep people safe.
- What is the environmental impact of 'cutting up'?
- How long will the waste stay at Rosyth/ Devonport?
- What are the timescales involved for the various options?
- Do we retain the skills to carry out the work?
- Is there a need for new facilities? Especially in financial climate.
- If it's that safe why do we still have leaks + accidents?

- What is the time scale between decommissioning and the start of the dismantling process?
- How much influence does the public have in the decision making process?
- What could change the outcome of the proposed options?
- S 1. – 30 years. 19 sub. (27) to do. 7R/10D. (10 is service life?)
- Capacity issue. Safe environment. [?????] 2040 permanent storage. Interim s30 years?
- Does Rosyth have necessary information? It seems to have been run down over 30 years. Future.
- Why new builds?
- Everything doesn't always go as safely as we want because humans are involved. Contingencies need to be in place.
- What training is given to workers who undertake 'cutting up'.
- What equipment will be used for this process?
- What are the level of risk(s) associated with ILW to workers and members of the public?
- Does it add an extra layer of protection to long term storage RC or RPV.
- The dock is a viable storage option.
- With all these processes in place why do things go wrong?
- Are you going to ensure that investment is put in place for investment in skills + facilities?
- Option 2 is a sensible one. Makes sense to store whole + minimise risk.
- Something that is going to be half as dangerous in 76,000 years. How can it ever be safe disposed of?
- We have to put safety first.
- No issue with how as we has the expertise.
- Hope lessons have been learnt from abroad. US + France in particular.
- What relevant lessons have been learnt from the US disposal programme?
- The environmental impact has never been an issue for the MOD. Historical view of the environment.
- Environmental impact has never bother the MOD before. Why should it now?
- Does your process in the proposal take account of future new technology options?
- Volume is a problem, where/ how are you going to reduce the volume?
- Would methods of cutting up produce contaminated liquids?
- Would these need to be stored?
- Have you looked at other methods of reducing volume, ans do you use, or would you use the process of 'melt' in the future?
- The project options have been well thought through.
- What I've learned is that how much radiation in the sibs is a lot less than I thought it was.
- Safety seems to be eminently manageable. I'm worried about defuelling.
- What is the decay life of the waste?
- Does it make sense to store rather than cut?
- How do we currently defuel submarines?
- Safety is important.
- Concerns around safety at Rosyth. There has been negative publicity highlighting safety issues.
- How long does it take to dismantle the key components of the submarine?

- How low is the low level waste? How safe is LLW? Is it well protected and sealed?
- Cutting up RC would take a lot of space so for me it is a no no.
- For me I cannot get my head around it, but RPV makes sense.
- Proposed way forward makes sense.
- Agree with proposed options as there is expertise to undertake the work.
- Environment + safety are prime concerns.
- Does all boats coming out of service go to Devonport for defuelling?
- What is the difference between LLW + ILW?
- You are not planning to have the GDF in place until 2040.
- What is the dose rate workers are exposed to?
- What is the advantages of cutting up first?
- If anyone was arguing not to leave it whole, but cup up what would there arguments be? I was wondering why it is an option?
- Are there scientific reasons for taking the RPV out and storing it?
- What is the advantage of cutting out the RC?
- You take the RPV out and where are you going to store it? You will need to store at Rosyth to start with.
- What is the worse that could happen from leaks.
- How do you monitor the risk? Shielding is important.
- Would the design base be based on worse case radiation?
- What are the time scales for dismantling for each option?

Where

- Concern for the risks to people + property. Need reassurance, particularly around workers.
- Do workers know the risk? What use of remote equipment?
- Would there be objections under Scottish government policy?
- NDA consolidated site as a preference.
- There is a risk of theft if left in the dockyard area. Untraceable waste.
- Will existing breaking yards be used?
- If the Scottish Government says no to dismantling in Rosyth, what happens?
- Would prefer the waste to be stored in a more secure location. There are 2 issues; laid up submarines and nuclear waste that is removed.
- Would the breakers yard be used?
- Which storage facilities are currently available?
- Have you chosen the site for the demonstrator?
- Dual sites sensible
- Concern with degradation during storage, especially Dreadnought. 'Maintenance is fully recorded'
- What are others doing? France – Going for surface disposal. USA – desert about ground in Nevada. Russians – similar to the US.
- Timescales? December by end 2013. Trial/ pilot by end decade. 2020 onwards 1 a year dismantled.
- Welcomed the shared responsibility (geographically)
- Intermediate storage should not be at Rosyth.
- You're never far away from a centre of population in the UK.
- Storage in Rosyth is no more dangerous than it being in the boats already. That is my preference.

- Partly agree with proposal on where.
- Done over by Devonport a few years ago over Trident.
- The local community in Rosyth should benefit from the dismantling not just Devonport. Can more be done here for local employment reasons?
- Do the existing sites have packed waste stored?
- As we do not have an intermediate storage solution, that means you will build a site in Rosyth?
- The GDF scope, solution is also important to take into consideration.
- Apart from cost is there any reason why this cannot be done somewhere else?
- Would like to Rosyth benefit – with future employment.
- Don't like the idea of stuff travelling all over the country. (i.e. nuclear waste)
- Less transport is safer decision needs to be near to the point of creation.
- If you not have to cut up, don't cut up.
- The more you move from one location to another the more likely things could happen.
- RPV is the best option.
- Can't the dismantling be done somewhere where there is not a centre of population?
- What would the employment opportunities be for the community of Rosyth?
- I can see advantages of dual sites would it run by one company?
- You should state where the waste is created at point of generation.
- Consolidation of waste seems like the right thing to do.
- I would prefer that existing sites were used.
- Where will ILW be kept and shielded in Rosyth?
- Concerned about transporting safety is a concern.
- Would like to see Rosyth get more.
- There are a lot of unknowns currently in this plan.
- What is the cost difference/ implications between options?
- Would prefer for it to be done in Devonport.
- How much waste is currently stored at Rosyth?
- Would Rosyth see an increase of waste at Rosyth if dismantling is handle there.
- It has to be stored for a very long time due to the half life.
- Does it have to be buried?
- Large populations in Devonport and surrounding areas. Therefore there could be opposition.
- Not really clear on what is being proposed.
- Good workshop put a lot of fears to rest.
- We have 35 years of storing waste in Rosyth if this option is taken up.
- The issue for me is the transportation the safest option is to store as it is.
- What type of real estate area would be required for the existing no. of submarines in Rosyth if the option were to be taken up.
- Dual site is sensible.
- I am always happy for more employment/ work for the local community.
- It would be more safe to take the RPV away from Rosyth, away from people.
- Why can it not go to one of the approved sites straight away?
- Concerned, you are going to make a decision somewhere else and Rosyth will just be told the decision.
- You have given 3 options therefore option 1 will not happen. You are not saying that you are going to build 2 facilities therefore why could you not move the 7 submarines from Rosyth to Devonport.

- Preference would be to move the 7 submarines to Devonport for dismantling.
- Is not also the option to move submarines from Devonport to Rosyth.
- What are the associated risk at storage at Rosyth.
- If there are 10 still active will they all go to Devonport.
- You have previously defuelled in Rosyth why would you not bring this back.
- Preference to dismantle 7 at Rosyth as this creates employment.
- Does 'free-up Rosyth' mean no more will come to Rosyth.
- There is a lot of public concern in Devonport about Rosyth taking work away from them.
- Store at remote location away from Rosyth.
- Who would run storage location? Would they be licensed for a maximum amount/ limit of waste.
- Why could we not have more than 7 at Rosyth. This would create long term employment, building on the quality, expertise and skilled workforce.
- 2 site option is sensible as it also takes into account the cost of transportation.

Which

- Cost, Planning + Safety are important issues that the public must be reassured on.
- No Devonport submarines at Rosyth.
- Timescale of 7-10 years for new facility, can a new facility be built in this timescale.
- Could materials leave Scotland rather than stay in Scotland 'storage options'.
- Do you really need a storage option/ solution, is deep water storage adequate?
- How long does it take to decay from HLW to ILW?
- What would change the proposed way forward? Political Interference? (no consultation process might change it).
- Must be away from centres of populations.
- What is the largest accident that could happen that would have an impact on the external environment?
- Why could the MOD not combine its waste with commercial facilities for storage?
- Storage shouldn't be in Rosyth. That is my preference.
- Personally I would not like to see waste stored in Rosyth.
- This is why we have to move forward together.
- I do not have a problem with it.
- Would prefer for it not to be stored in Rosyth.
- Mentioned one of the problems was 'space'. There was never a proposal to have more than 7 in Rosyth. In that case could it be that Rosyth with 7 does not have a space problem.
- Could the funds from the recycling process go towards cost of storage of ILW until ultimate storage is available?
- Working along side the nuclear industry to store it makes sense.

Other Issues

- Who are the regulators? What are there functions?
- What is binding if Scotland went independent?
- Progression of UK Dept of State would have to take account of that.
- The industry must be open + transparent on all aspects of the project.
- What is/ will be the political impact on solutions for Scotland.
- Would ongoing agreements be binding.

- Concern for continuity of plan should Scotland gain independence.
- Is there a potential for transport of waste to be disrupted.
- Stop building submarines until this issue is sorted out.
- Absurd to keep building these things until you've sorted the problem you've got now.
- Under what circumstances could nuclear license be revoked?
- How susceptible to commercial decision rather than strategic?
- I feel that there is too much politics coming into this rather than safety.
- How long are materials going to be stored on site?
- The public would want to be reassured that the funding for GDF is ringfenced.
- If government changes would this policy be maintained?
- Would the be looking for the cheapest option over best option?
- If money is ringfenced how can you guarantee funding for the whole project against time scale.
- Will you take the views of the Scottish government into account?
- How will final decisions be communicated back to local communities?
- Japan disaster shows what can happen when compartmentalised procedures are useless when 2 things happen at once. What lessons learned?
- How are you going to communicate outcomes decisions to communities at the end of the process.
- Maybe the timescales involved put people off. They'll be dead by the time 2040 comes.
- Would the independent observer be involved throughout up to government decisions?
- Concern for; safe transport, public reaction during transport.
- Why can we not use one of the submarines as a tourist attraction which will generate income.
- Is there the possibility of national English government having nowhere to put the waste?
- Why can't a submarine be used as a tourist attraction in Rosyth. As in Cherbourg + elsewhere.
- Could you give an idea of the amount of radiation and its qualities from all types of radioactive materials.
- We do not know what to do with the waste we currently produce, yet we are building new submarines.
- What if a future Scottish government didn't want the deep disposal store in Scotland?
- Why are we building new nuclear submarines when we haven't got solutions to the problems we have with the ones we've already got? (all agreed)
- Approx what cost is involved in the project?
- Why is there not government policy that all departments work together to create solution as this is such a major activity.
- How do you propose to 'cut up' (method) if you need to undertake this?
- Is the cost factor the driver when making the final decision?
- Why is there a proposal to cut up when USA do not do this?
- Have we learnt any processes/ expertise from Russia/ USA/ France?
- Who already has done this? Learn from this.
- How long to remove the RC?
- How big a health physics team would be needed and who?
- Dose rates – how do you propose to cut up?

- The level of lack of knowledge would play a significant part in how people would react to this consultation.
- Did you get a different reaction from the people at Devonport?
- Have you had much reaction from the Scottish government?
- Would tenders (ship breaking) be UK based? This would create employment.
- When was the last submarine defuelled at Rosyth.
- Is the site at Rosyth guarded. There is a lack of security.
- People would be tempted to steal the metal, due to the current metal market situation.
- Concerns with methods of consultation undertaken by Babcock.
- Lots of men in grey suits is off putting.
- Is nuclear waste carried by rail at Rosyth?
- Tenders from commercial ship breakers must be from UK based companies.
- Has funding already been agreed?
- When is this programme due to start?
- When is the decision for the location of GDF going to be made?
- Store at an MOD site.
- People are sensitive about how the MOD handles 'Dalgety Bay'.
- It would make life easier if decisions are made on Dalgety Bay.
- What could happen if you get a leak?
- What tools will be used for size reduction tasks?
- If items are dropped from the crane would radiation get in to the sea?
- If metal is left unshielded outside the dockyard would I get radiation from it?
- Why could the decommissioning of the Rosyth site not be in the scope of the project?
- By giving communities relevant pictorial information would be useful, i.e. a map of Rosyth Dockyard showing the distances from community locations to the reactor and surrounding area.
- Are you sure that there is nothing else on the submarine that you are not aware of?

Rationale

- General consensus Yes.
- Rational makes sense.
- It's a really positive thing what is happening here. I have learned so much about nuclear.
- In fearness [sic] it does.
- Too complex. There are 3 methods, but one would need to know more in order to make an assessment.
- We can't disinvent it as the rationale is right subject to the end disposal.
- I can understand all you said today. Make all information to individuals, i.e. teams experiences working within the industry.
- Makes sense and it has taken away some of the fear that was there.
- A lot of things are shifting [illegible] will take it as it is at the moment.

N.3. Saltash Workshops

How

- Is this what the Russians, French and Americans are doing?
- The advantages that other countries have is that they have more space. In the UK we have highly populated areas.

- Perhaps we could use the 'Outback of Australia'.
- If RC is kept whole, what other shielding would be required?
- How long does it take to dismantle the RC?
- Is this project only about 27 submarines at the moment?
- What was the original plans for dismantling the submarine when they were first built?
- Are these the first submarines to be dismantled? Is there any ILW?
- Could you explain HLW, ILW + LLW?
- How far away does ILW need to be for it to be safe?
- Long term storage should be in place before dismantling starts.
- Would you like to comment on the environmental impact, on the recent leaks/ spills at Devonport?
- We can be confident on the safety systems.
- Is there a cost implication between storing the RC + RPV?
- Prefer RPV as the safest option for the workforce.
- Are you going to look very closely at all areas of health of the workers?
- What is the benefit of cutting it up?
- What is the radio activities half life of Cobalt 60, Nickel 59, Nickel 63, etc
- I would like to see us coping with this as efficiently as possible.
- What point in the future do you face cutting up and disposal?
- If you take out the whole RC you are giving yourself a major problem for the rest of the submarine including transport issues.
- It makes sense to keep the RPV intact.
- Could you confirm that if you remove the RPV that the rest of the submarine can be recycled?
- What is the actual process for removing the RPV and how long would it take?
- Do you have the workforce that is capable of doing this work?
- What is the storage time for the RPV?
- The RPV is the best option.
- Ensure that communication is kept up with the public all the way through the project. And that the project will be handled as safe as can be.
- Communication/ education to all communities is important.
- The professionals work in the publics interest, and make informed decisions.
- It is difficult for the public as they do not all have a degree in physics, to make decision on the project.
- If the RPV is cut up, what would the size reduction be?
- What do the French do?

Where

- The word interim storage solution could be worrying people - what are the trigger points?
- It needs to be made clear to people that you can transport safely.
- Why is Saltash involved with this consultation? Was it defined by risk?
- You need to find storage solution first, then you have somewhere to take it.
- I am reassured by what has gone on today. You have put this over very well.
- Will the monitoring continue as it is at the moment or will it change?
- What would be the benefit if Devonport was to take this work on?
- If facility is built by 2040 where in the local area would they go?

- I do not feel that at this moment that you have all the information that you need in able to make decisions.
- I see great issues with moving submarines from Rosyth to Devonport or vice versa. It is not a simple issue.
- I am confident in the processes.
- Knowing someone who works on submarines who have spoken to me about the safety measures undertaken has given me confidence.
- It does not seem long enough to build an interim storage site for 100 years.
- How long would the last facility/ GDF be able to store waste for?
- How many submarines can be stored at Devonport?
- Is there any reason why the GDF could not be put in place sooner?
- You have narrowed it down fairly quickly to 2 locations, where about does the French, Russians and USA site theirs?
- Rosyth is not an isolated area, it is similar to Devonport, people live nearby.

Which

- Are the people in Cumbria being consulted?
- What is the planned date for all this to be finalised?
- Would you build before you start dismantling?
- Public are unqualified to comment, we have to rely on the experts.
- There was no foresight. This should have been set in place from the beginning. Storage feasibility should be in place now.
- Need to communicate clearly to the public Storage Options.
- First priority is to sort out the storage solution. Things get talked about, but nothing happens.
- How re-useable is the steel hole.
- What is meant by movement? How would movement occur?
- Would transport be by sea or rail?
- Does the RPV container go into another box?
- What is reverse engineering – How is it contained + shielded?
- The less we move them the better.
- Also will create further employment opportunities for local people.
- Store away from centres of population.
- When are you looking to make a decision on the project?
- Views might change with a change of government.
- It could see that the GDF requires an urgent solution.
- What happens if this does not come off, where would the project be in this situation?
- What would the cost implications to the MOD towards the GDF?
- What sort of building would be needed to store the waste and what type of material would it be made from?
- Is it right that the waste should be consolidated with the rest of the nuclear industry?
- Where is the nearest NDA site? What transportation methods would be used?
- Can the waste be stored at different places, if it was a MOD bespoke site or NDA site?
- It would be silly not to use the industry sites.

Other Issues

- Would you like to comment on the recent leak/ spill at Devonport and the effect on the environment?
- 10 subs still in service are they based at Devonport?
- My concern is the health of the population. And that people are assured there are no health risks now or in the future.
- Who monitors the safety? Is this done on a daily basis?
- Why is this being considered now – what is the tipping point?
- Bearing in mind the economic situation we are now facing, is it possible that corners could be cut doing it in a cheaper way.
- Can we be assured that decisions have not been made and that consultation responses will be taken into account?
- Will decisions be based on money?
- Are there suitable geological facilities near Devonport Dockyard?
- I would like to see it done at Devonport.
- I would like to see other opportunities develop/ areas of work employment for Devonport.

N.4. Torpoint Workshops

How

- Concerned about the pipes – how radioactive are they?
- What are proven routes for dealing with them?
- How is water waste dealt with?
- What size would vessel need to be to transport nuclear material?
- Will operation take place in dry dock?
- Will this area be security screened + protected?
- Can whole primary shield tank be lifted out?
- Would RPV need to be contained before anything is done to it? (e.g. lifted out of place)
- Where are cuts made to move RPV?
- What concerns me is the categorisation of waste.
- People don't have an overview of the problem – they need to know numbers (radiation levels) involved.
- Clarify: What will be done at each site (Rosyth/ Devonport)?
- What are the by products of defueling process?
- This is a global environmental issue, and this should be taken into account in this consultation. Cannot separate this from rest of waste management issue.
- Consultation should be wider and should incorporate all aspects of process (defueling/ disposal/ environmental impact etc).
- Do Americans consider this to be low level or intermediate waste?
- Dockyard work so far = planned + designed for. This has not been designed for.
- Safety: How can you have nuclear licensed site in dry dock?
- What total radiation are we talking about? If there is a lot of radioactivity then it really matters. Long acting isotopes: not a problem? If store for 50 yrs is it then low level waste?
- Aspiration to have no discharges, but need to consider luck that has prevented previous serious consequences to 'incidents'/ 'accidents'.

- 7 cases of cancer in Anthony Village recently. Everyone lived on waterfront + opposite nuclear facility. What about invisible rubbish coming our way? (also area in Torpoint with high incidence of brain cancer).
- Everything done at dockyard to date = designed for: how many unintentional leaks have there been?
- What is the ratio of (allowed discharge) limit to national dose?
- Prevention of human error?
- What happens if there is a fire? Particles -> air then people get cancer.
- Concept of this consultation: how dangerous is this waste? How radioactive is this material? Are main concerns environmental or of criminal nature? What is the timeframe?
- Need work done in Saltash/ Torpoint/ Willcove (research/ cancer rates).
- Is anything being done to protect people in these areas?
- What happens to beta radiation if it gets in to the water? What about tridium?
- If option 2 (take out RPV) what happens to the reactor compartment? Does it stay in/ go to ship breaker? (outside of compartment – is it radioactive?)
- Leaflet refers to other countries dismantling nuclear submarines: have there been any accidents or incidents? Do they store intermediate level waste underground?
- How long is the half life on the RPV?
- The ILW is the RPV only. Is most of the radiation on the inside?
- Have all the options been costed? From safety point of view, option one looks best.
- Don't believe storage area size of football pitch is really needed. (other countries choosing this option)
- Do you lift out the RPV in the open air?
- How thick would casing have to be to be safe? What would exclusion zone be?
- Have all the subs been defueled already?
- Can submarines be towed from Devonport to Rosyth? If not, why not?
- Are decision based on cost or safety?
- When? + Why this timing? Surely we should be asking when? Shouldn't be basing this on cost but on how people will be protected: primary schools/ homes and their proximity.
- How can we be consulted on this when we don't know how pipes would be cut out?
- What is the radiation risk when cutting through pipes? (dust, contamination, etc)
- What is a discharge – is it a radioactive leak?
- What do they do with the civil sector ILW?
- Will submarines only be scrapped after 30 yrs or radioactive decay?
- Is there a formula to decide which order to scrap them in?

Where

- How many primary schools + education facilities + homes are in immediate proximity of the site? How has this been taken into account in this proposal?
- Are we talking about only doing this in Devonport?
- In the event of a nuclear incident, have you raised the risk by having this decommissioning taking place in such close proximity?
- Will there be a further consultation on decommissioning process/ planning facilities?
- Safety – Human Error.
- This is a number game. Rosyth has space/ less built up. Devonport has facilities.

- Used to have regulation that work had to be at least 500yds from public area? Is this still the case? Is this still adhered to?
- Are there regulations about sitting these activities?
- The hazards involved in de-fueling seem higher than what we are discussing today.
- Devonport = long + narrow close to public areas.
- Danger of proximity of people: Devonport – houses are close to dockyard. Rosyth – people don't live as close. What if there was an accident?
- Why do subs have to be moved? Is this because they can only be defueled at Rosyth? Can a defueling facility be built at Rosyth? Is it that Scottish people don't want this at Rosyth?
- Rosyth has less people than here (Plymouth)
- Jobs – Will this result in new jobs for Devonport?
- Given their record to date, are we wise to trust Devonport to undertake the handling of large amounts of dangerous radioactive materials?
- This will produce more work for Devonport. Any advance in our knowledge/ experience – should embrace = to the benefit of Plymouth area.
- For future submarines, why cant they be taken abroad to places where this already being done? Pay USA to do it? Change government policy?
- What is the duplication cost of machinery versus transporting from one site to another?
- Interim Storage 100 yrs => GDF volunteerism.

Which

- Could reduce house prices!
- When will the interim storage happen?
- Is it safe to store reactor vessel in steel container?
- How long can it be/ will it be stored like this?
- How does the container get transported?
- How secure are transport movements (e.g. terrorist threat)?
- Why not pass on the waste to France our trusted allies?
- Storage: if complete reactor vessel is taken out + put into interim storage, why can't it stay there?
- Is this out of the hands of this project?
- How long is intermediate storage?
- Rosyth has plenty of space but Devonport doesn't.
- Devonport dockyard doesn't have any facilities for waste storage.
- Preference for NDA solution.
- If we host the dismantling will the MOD promise to store the intermediate level waste (ILW) at a remote site away from centres of population?
- Metals decay all the time. Fluids can accumulate can become much more dangerous over time (can remember when advised not to eat local fish as not considered to be safe).
- What will you do with weak material (low level waste)?
- Does fluid/ material ever get into the river (Tamar) from submarines?
- Will this impact Babcock?
- As a group we've said that radiation causes cancer. My children might just see end of project: If we're going to host dismantling, the least the MOD can do is to remove intermediate waste from populated areas.

- Will intermediate waste be stored with high level waste? Seems very expensive way of doing this.
- One concern on intermediate storage: Timescale + risks involved? 40 years to develop GDF not mentioned in documents. Look back 40 years and solution would have been totally different. Need intermediate solution that could become permanent e.g. underground in secure area.
- Security/ terrorist concerns?
- Storage near people seems silly.
- Accidents can't be 'forecast' – considering keeping near people when there are other options = unwise.
- Is material of any value to terrorism e.g. steel?

Other Issues

- No extra jobs! At potential cost of private sector investment & jobs.
- Metals decay all the time. Fluids can accumulate can become much more dangerous over time (can remember when advised not to eat local fish as not considered to be safe).
- Public sector jobs/ funding being reduced: need private sector.
- What business would move to area with nuclear storage/ treatment facility?
- Has there been an impact assessment?
- What impact on local economy?
- Plymouth is promoting itself as a tourist centre and yet it has a nuclear facility within the city with this additional proposal for disposing of nuclear submarines at the naval base does not lend itself to being a tourist area.
- How will jobs be impacted?
- Concerned about the pipes – how radioactive are they?
- What are proven routes for dealing with them?
- How is water waste dealt with?
- What is deep maintenance of submarines?
- Are local radioactive discharge levels low even after the accidents at the dockyard?
- If radioactive water is being discharged into local water sources this is major concern – Drinking, Swimming, Fishing.
- Will house prices in the area drop?
- Wouldn't have bought house in the vicinity of known that this was happening here.
- When? – Reduce v. dangerous radiation..... Before scrapping (after e.g. 30 years per ship).
- Will budget cuts lead to cuts that could compromise safety?
- The hard copies + other information sent to me proved invaluable when attending the 4:30 workshop Torpoint.
- Cutbacks: Are the independent regulators going to be in the firing line?
- Is there anyone who is truly independent on any of these committees? Need this to make decisions robust/ challenge thinking. Need independent people.
- It seems unnecessarily expensive to permanently store intermediate level waste with high level waste.
- How can you dismantle in a dry dock? A great deal of debris: radioactive/ dust. Cleansing process?
- Interim storage should be safe for long term, in view of economic & environmental uncertainty. We may not be able to develop the GDF.

- Defueling in Plymouth – this is a worry: Is defueling in a populated area a good idea?
- These booklets are splendid. Would have liked to see them earlier so that I could have been more prepared for the workshop.
- Did they publish readings from tests in the Tamar? Can this be found on-line?
- Good news for UK that this (the ship recycling) has to be done in the UK.
- Will ship dismantling be done in the UK (a pity not to do this here too).
- What happens to non hazardous material/ disposal?
- Hi-Tech submarines: is there a national security dimension to dismantling?
- Different categorisation of waste in Europe/ States.
- Why no standardisation of classification and disposal?
- Is it cost driven or safety?
- **Xxxxxxxx-rep regulatory committee.**

Rationale

- It would help to have more accessible information. We need community information to represent community perspective.
- Architecture Complete. Delay licence, delay upload, delay complete.
- Showcase for SBCP's. Create 'community' expo learning promote. Auditorium analysis. Not goals away.
- Hope it creates local work for local people – in a safe way. Desperately short of jobs here – Plymouth needs it.
- No major incidents in Devonport for 40 years. Ideal to do here.
- Can you guarantee that radioactive waste from other countries wont come here.
- Embarrassed by length of time it takes MOD to make decisions. This should have been discussed/ built in 20 yrs ago.
- Will we be informed about final decision? How?
- Government depts.: Don't assume that they are joined up or work together.
- When will it start? Where will storage be until then?
- Surely the most important thing is safety.
- Why has it taken 40 years + another 40 years to get to the geological disposal site?
- Does this come under new planning regulations (by-passing planning processes/ government turning a blind eye, etc?)
- Safest possible isn't always safe enough. Should we be doing this? Don't build any more subs.
- We seem to be restrained by existing policy. We should be questioning the policies.

N.5. Edinburgh Workshops

How

- There was consensus that RPV removal was the best option but some preferred packaged storage to intact storage.
- The preferred option should also seek to optimise cost through efficiency.
- RC cut out seems like more logical solution, confirmed by USA.
- Can we learn from other nations e.g. America? Can they deal with it for us?
- There maybe a future to use ILW that allows it to be recycled. Options and decisions should not preclude this.
- In one stakeholder's experience, the work associated with RPV removal is 'fairly simple' and not 'novel'.

- Has the risk associated with doing something new, against a tested method been factored in to your considerations?
- My preference would be to remove the RPV and keep intact and perhaps dismantle it at NDA site at a later date. This was consensus view.
- Remote handling techniques may have improved by the time you may need to cut up RPV. Agree with RPV cut out and intact storage as best solution. It will just be a case of where you make the cuts in RPV removal from wider elements/ circuits.

Where

- The site selection process is sound but more emphasis should be placed on explaining how this conclusion was reached.
- Best to dismantle on current sites to remove risk associated with transit. However, employment opportunities should be offered to local people.
- There was consensus that dual-site dismantling was the best option.
- Operation should take place in are with less dense population.
- Public acceptance at existing sites may be better because of legacy. Skills base is also present at these sites.

Which

- What is the storage solution at Dounreay and can we learn from that?
- There were arguments for and against use of commercial sector in storage and ship-breaking.
- Decommissioning activities of other sectors should be included on the project timeline.
- Can you let Sellafield deal with the ILW in its entirety?
- It should be a priority to ensure worker dose is minimal by investing in facilities and process.
- There are potential alternative existing storage solutions, i.e. mines etc. Can these be exploited?
- 'Short term' storage can feel like a long time to general public. Perception may be different within industry.

Other Issues

- Very important to have 'seamless' responsibility transfer among personnel for the legacy of project. Shared knowledge base.
- Quality of staff training is key. There should be 'several layers of the onion (management) to oversee every element'.
- Safety message should be reinforced, i.e MOD should proactively screen staff and share results and scanning facility with wider public to improve confidence.
- More could be done to make general populous aware of radiological risk/ safety to dispel fears/ concerns.
- The process needs to be controlled by a responsible and accountable agency. Regulatory regime needs to be sufficiently robust and enforced.

Rationale

- There was general consensus that logic was sound.

- Agree that logic is and approach is 'thorough' and 'meticulous', but standards have to be carried over to people doing work.

N.6. Rosyth Workshops

- Still risks associated with the project that you haven't considered, for example, what happens if GDF is not delivered?
- The risk I perceive is that once the waste is here, it will stay here. Presentation lacked discussion about risks.
- The deciding factor is the balance between the potential risks and the economic benefits for Rosyth.
- The indicative dose burden for working with RPV was not mentioned in presentation. Maybe this is why USA favours RC removal.
- RC is effective containment itself regardless of storage building size, until the GDF is available.
- A view was expressed and echoed that the 7 subs at Rosyth were safe and just should be left in afloat storage.
- I'm not sure that enough emphasis has been placed on minimising dose burden to workers.
- Nothing is risk free, and, given the risk, is it worth it to the economy.
- There's an issue of trust in the MOD and assurances need to be made to ensure that the goal posts don't move.
- What is SDP's measure of 'success' for the public consultation?

N.7. Linlithgow Workshops

- MOD storage only. Do not involve private commercial (for profit) companies.
- R Livermore - HSE/ NSD/ ONR view. CD + documents not give information on government regulator view on options. What is ONR view? HSE/ NSD made recommendations on Rosyth (RD83 etc) are there outstanding issues?
- R Livermore - Decision Making Process. Must include the political. Cost. Cost-Benefit for Scotland. Are 2 sites required to have redundancy for potential loss of one site?
- R Livermore - International comparisons. CD gives some examples (USA, Russia, France).
- R Livermore - As yet no-one does what we are proposing? Is that the case?
- R Livermore - Anything we can learn from international practice?(costs/ technical/ management/ culture)
- R Livermore – Construction of storage + cutting buildings. What standard of resilience will they have to damage? E.g. aircraft impact – a risk? (RAF Tornado + Torness 1999).
- R Livermore – Safety is responsibility of MOD. Not offloaded to the regulator or to contractors. Needs right culture throughout + strict management of contractors.
- R Livermore – Design of Risk. Management of Health & Safety at Work Regs 1999 require risk assessment + management systems. This requires hierarchy of controls. This would set design-out & elimination or reduction of risk – is this applied to this project & to design of new subs?
- R Livermore – LLW Disposal. Sub radwaste on embargo in early 2000 for disposal at Drigg due to presence of C-14. Is C-14 an issue? Can we rely on LLW disposal site?

- R Livermore – Rosyth NIA 65 License. HSE Report (2004) on decommissioning of Rosyth said site (no7 AWAFF) close 2009 + unable to handle decommissioning or dismantling subs. What has changed? What is state of NIA license proposal?
- R Livermore – Management Systems + Organisational Culture. Emphasis has been on technical issues. Projects also dependency on ensuring tight effective management & the culture of organisation I contractors (+ regulators).
- R Livermore – ILW Decay to LLW. Since majority of radionuclide waste is Co-60 (re gamma). Practical to leave to decay from ILW-LLW? Safe? Comply with HSE/ ONR requirements?
- R Livermore – Analysis. (steep!) political implications not considered. Economics – not costed. Legal – how do options fit regulator + 4 principals of decommissioning + handling waste?
- R Livermore – Worst Case Scenarios. CD lists possible accidents – examples not comprehensive.
 1. What are the worst cases?
 2. Who determined them?
 3. Independent check? (beyond industry + regulator who come from similar culture)
 4. How do worst cases fit re TOR (Tolerability of Risk), R2P2 (Reducing Risk Protecting People_ of HMG/ HSE/ ONR?
- Robert L Barbour - The preferred option seems the most logical – Keep RPV whole while geo-storage is developed.
- How can bringing '7' more subs on line be 'sustainable development'?
- What are risks of cutting out RPV as opposed to full unit?
- GDF – priority should be put here!
- 27 are in scope of project, what about the rest? Why are we making more?
- Priority in determining long term storage facility for HLW etc.
- Transport waste by sea.

N.8. Birmingham Workshop

Initial Dismantling

- Ian Avent - With 6 submarines laid up at Devonport with fuel rods still in. Plus submarines on refit, plus active submarines alongside, plus fuel rods in core pond, isn't there a limit to the risk burden upon the 270,000 people of Plymouth?
- Ian Avent – What is the 'order' of 'difficulty' based on activation product and plant contamination for the earlier design of nuclear plant?
- Ian Avent – If the NDA do not play ball and accept the RPV is the default position cutting up and re packaging at Devonport?
- Ian Avent – Have dispersion / human uptake assessments been undertaken for N59, N63 Why is this ranked purely on Gamma / Beta shine?
- Ian Avent – Has eventual decommissioning been taken into account on Trafalgar classes including modification?
- Dave Whitworth (NI) - The downside of delayed packaging has not been adequately recognised (e.g. the IPR of Technical Operator Study)
- Dave Whitworth (NI) - Is the RPV really transportable in the UK by road and rail?
- Dave Whitworth (NI) - From the SEA, virtually all dose increased comes from RPV removal, not from processing (whether early or delayed).

- The info factsheets focus on defueled submarines. This gives a false impression that nuclear submarines have low/intermediate level waste and not high level radioactive waste.
- SDP will need to be publicly accountable throughout the whole process over years.
- Once any decisions are made on SDP, if on closer research it is found that a process should be changed, how will such changes be transparent?
- Decommissioning more, equitably split between Devonport and Rosyth?
- Has consideration been given to co-utilising planned ILW size reduction facilities at other nuclear licensed sites (e.g. Sellafield) for size reduction and packaging of RPV's?
- More justification needed for reasoning behind the rejection of Barrow and Faslane as potential; dismantling sites.
- Session highlighted the risks to MOD of committing to an option too early a stage, if unforeseen problems arise

Storage of Intermediate Level Waste

- The MOD has an ethical responsibility to store its own waste.
- Mark Dutton – 1. Because of the political difficulties, I find it difficult to see who MOD ILW can be stored at an NDA site for the foreseeable future. 2. To obtain an ILW storage site, it is essential that local authorities at Rosyth and Devonport are involved in the decision-making process asap.
- Can't separate national issues from community/siting issues because at the end of the day there will need to be community buy-in for proposals. (Local authority must grant planning permission etc.)
- Information harvesting an option through ILW storage?
- Wealth of materials/R&D information which could prove valuable for potential private bidders for storage (or NDA)
- I am unhappy about size reduction and hope every effort will be made to avoid this.
- Plymouth has x6 subs laid up with fuel rods still in. Subs on refit – plus operational subs coming and going. Perhaps fuel rods in core pond- the last thing we need is an ILW store. This is not a nimby position just risk management.
- Any site accepting waste must gain a radiological benefit.

Environment

- Mark Dutton - Not including local stakeholders from Devonport and Rosyth and other stakeholders not appointed by MOD in the MCDA is making the same mistake as Nirex made in the 1990s that contributed to the failure of the repository programme.
- Has the SEA included a risk assessment of accident during the dismantlement process or in storage?
- Weighting of determinants of environmental impact needs to take account of community views as well as views of "professionals".
- It's not about "communicating" or "putting people's mind at ease". There has to be a genuinely deliberative programme of dialogue with host communities/ See process used by CoRWM 1 as a model.
- Does the assessment of health and wellbeing include the stress of living with a nuclear deterrent?

- On initial examination of the SEA there appears to be little evidence to support the conclusion that the project will have no impact on the surrounding population's health and wellbeing and the city's (Plymouth) positive self image and attractiveness of a place to live, work and invest in.

N.9. Glasgow Workshop

Initial Dismantling

- The scope of the project (which refers only to the 'type' of site and not the potential location) means that full cost and environmental impacts of the project cannot be determined at this stage. How confident can DE&S be that the costs / impacts identified now take account of the uncertainties inherent in potential locations for interim storage and disposal.