

**Notes of 2<sup>nd</sup> ISOLUS (Interim Storage Of Laid-Up Submarines) Advisory Group (IAG)**  
**held on 27<sup>th</sup> September 2007 at Royal Fleet Club Hotel, Devonport**

**Attendees:**

Les Netherton	Environmental Health Advisory Services Ltd (Chairman)
Maggie Taylor	MOD - Assistant Director (AD) ISOLUS
David Collier	Faulkland Associates
Son Mon Sutcliffe	Member of Public
Chris Hargraves	MOD - ISOLUS Deputy Project Manager
Dr William Thompson	Lancaster University
Paul Naylor	Environment Agency (EA)
David Senior	Health & Safety Executive (HSE) - Nuclear Installations Inspectorate (NII)
Alan Gill	MOD - Representing Naval Base Commander Devonport
Dr Louise Brown	Scottish Environment Protection Agency
Peter Lanyon	Nuclear Submarine Forum
Di McDonald	Nuclear Information Service
Tub Aves	British Nuclear Energy Society (BNES)
Ian Avent	Campaign Against, Nuclear Storage And Radiation (CANSAR)
Andy Stevenson	MOD - Representing Naval Base Commander Clyde
Shelly Mobbs	Health Protection Agency (HPA)
Antony Lokier	MOD - ISOLUS Team (Secretary)

**Apologies:**

Dr Jane Hunt	Lancaster University
Dr Paul Dorfman	Warwick University
Dr Kate Rawles	Ethicist
Andy Daniel	British Nuclear Group Project Services Limited
John Shepherd	MOD - Representing Naval Base Commander Devonport
Emma Cooke	Scottish Government
David Warner	Nuclear Decommissioning Authority
David Whitworth	Institute of Nuclear Engineers
Mark Bentley	Construction Industry Research and Information Association (CIRIA)

**1. Welcome & Introductions**

Les Netherton (LN) welcomed all those present and asked everybody to introduce themselves as there were some new members. LN thanked Alan Gill and his Devonport colleagues for the submarine visit and tour of the dockyard on the previous day.

## **2. Notes of the last meeting.**

The draft notes of the meeting had been circulated and updated to reflect comments received. Following a discussion it was agreed to remove the "Post Meeting Note" text from section 3 and to change this section to emphasise that the meeting expressed the need for preview. The notes were accepted with these changes.

## **3. Review of Actions**

- **“Action 1.1: Bill Thompson to provide a point of contact for an ethicist.” - Action Complete**  
- See Agenda Item 5.
- **“Action 1.2: John Shepherd to liaise with the Devonport Local Liaison Committee (LLC) to determine if they wish to be represented on the IAG.” - Action Ongoing** - This would be raised at the next LLC in November
- **“Action 1.3: Peter Lanyon to provide a point of contact for the Peace and Justice group in Plymouth.” - Complete** - See Agenda Item 5.
- **“Action 1.4: David Collier to provide a point of contact for the Department for Transport, Health Protection Agency, an ethicist and the Cumbria local liaison committee.” - Complete** - See Agenda Item 5.
- **“Action 1.5: Andrew Stevenson to provide a contact for the Rosyth Local Liaison Committee.” - Complete** - See Agenda Item 5.
- **“Action 1.6: Di MacDonald to provide a point of contact for Environmental Justice.” - Action Ongoing** – Di MacDonald (DM) stated that she needed to put together an article for the Scottish Environmental Justice newsletter. It was requested that the secretary provide supporting information for this article as requested.

**Action 2.1:** Secretary to provide supporting information as identified by DM.

A discussion took place regarding the benefits of the ISOLUS project having a short regular newsletter to keep the public informed. This was accepted by the ISOLUS Project team.

**Action 2.2:** The ISOLUS team to start a short regular newsletter.

- **“Action 1.7: Secretary to provide updated membership table to next meeting.” - Complete** - See Agenda Item 5.
- **“Action 1.8: Those with models to forward them to the ISOLUS team by 24th August.” - Complete** - See Agenda Item 6.
- **“Action 1.9: ISOLUS team to present a proposal at the 2nd IAG meeting.” - Complete** - See Agenda Item 6.
- **“Action 1.10: All to provide any comments to MoD on the strategy by the 24th August.” - Complete** - See Agenda Item 6.

- **“Action 1.11: CH agreed to produce a programme for the next meeting.” - Complete - See Agenda Item 7.**
- **“Action 1.12: MT to raise the possible update of project title at the MISG.” - Ongoing - This would be raised at the next MISG on the 8<sup>th</sup> November 2007.**
- **“Action 1.13: All to provide any comments to MoD on the website by the 24th August.” - Ongoing - It was agreed to extend this action until the 7<sup>th</sup> November as the MoD ISOLUS website page had been unavailable due to a computer upgrade.**

#### **4. IAG Terms of Reference**

The updated Terms of Reference at Annex A were presented to the IAG. LN stated that 2 issues for discussion had been raised to date. The first was whether the IAG should be the "Process" or "Project" Guardian. The second was whether the need for preview of the future work was sufficiently reflected in the Terms of Reference.

The difference between Process Guardian and Project Guardian was discussed. David Collier (DC) stated that conventionally there was a difference and that the Process Guardian ensured that the process being followed is transparent and allows for input and reflects stakeholder concerns, whereas Project Guardian implies responsibility and accountability for the project.

David Senior (DS) said the regulator always-encouraged clarity in relation to responsibilities and there should be clear ownership for a project. In this case the Project Guardian would be MoD as it has responsibility for the decommissioned submarines, and the IAG has an advisory role.

Dr William Thompson (WT) stated that the Consultation Steering Group had used the term Process Guardianship as ethically guarding the process by which consultation had taken place.

LN proposed that "Process Guardian" should remain in the Terms of Reference for the time being and that a statement be made in the meeting notes that the Terms of Reference include proactive advice to the MISG and early preview of emerging proposals. The Group accepted this.

#### **5. Membership of IAG**

The updated membership table at Annex B was presented to the IAG for discussion. The secretary (AL) went through the table discussing the changes since the last meeting.

AL stated that Cumbria LLC had replied to the IAG invitation and wished to be a correspondence member.

An Ethicist, Dr Kate Rawles, has agreed to become an ad hoc member. Subsequently WT had identified Dr David Littlewood from the Centre for Professional Ethics at Preston, who was willing to become a core member. WT provided some background on Dr Littlewood and following a discussion the group agreed that would be of great benefit to the IAG to have them both as members.

David Senior confirmed that he would effectively be covering the Health and Safety Executive as well as the Nuclear Installations Inspectorate on the IAG.

AL welcomed a representative from the Health Protection Agency, Shelly Mobbs, who had agreed to become a core member.

Further to Andy Stevenson's identification of Bob Pirret as the link to the Rosyth LLC, AL agreed to contact him to determine if he wished to be a core, ad hoc or correspondence member.

**Action 2.3:** Secretary to contact Bob Pirret

AL stated that the Scottish Government had nominated Emma Cooke to be a core member of the group.

Peter Lanyon (PL) made some suggestions on how to best feed in the views from Friends of the Earth and Greenpeace either directly via himself or via the LLC. It was felt this would be better done directly. Peter stated that he was in touch with these groups and could ask for their views on each occasion. In the meantime it was suggested that they should be made correspondence members. AL agreed to write to them again after PL identified points of contact.

**Action 2.4:** PL to provide points of contact for Greenpeace and Friends of the Earth.

**Action 2.5:** Secretary to write to the identified points of contacts in Greenpeace and Friends of the Earth.

A question was raised about Industry representation at the group. AL stated that at present Andy Daniel, British Nuclear Group Project Services Limited, was a member of the Group and all the other companies in the alliances are copied correspondence. Also a NDA representative is a core member of the Group.

Membership of the Group would continue to be flexible to meet changing demands in the future.

## **6. Stakeholder Engagement and Communications Strategy**

AL stated that following comments received since the last meeting, under Action 1.10, the strategy had been revised to make it a more generic overarching statement of principles. The revised version is at Annex C. MoD will produce a working plan for future activities.

DC suggested that it would be useful to have a section in this document identifying roles, and that there is a very useful example in the Managing Radioactive Waste Safely document which identifies the roles of the decision maker, which he could give a reference to.

**Action 2.6:** DC to provide a reference for identifying roles.

**Action 2.7:** The secretary to provide an updated paper with a section on roles for comment.

LN suggested this would be a good time to discuss the Public Meetings Proposal, Annex D, that had been drafted for discussion.

It was proposed not to limit the numbers and not have a cut-off date, but to ask those who wish to attend to notify their intention if possible in order to help manage the logistics and avoid exceeding the safety requirements for the venue. However we would not turn away anybody turning up on the day. It was requested that 2 weeks notice be given in a local newspaper in addition to the website and newsletter. PL emphasised that we should not put any barrier in the way of the public attending IAG meetings and the more public involvement the better, this was supported by the Group. It was agreed that the public would not have to introduce themselves but would be welcome to state if they represented any organisation, so that we could involve that organisation in the future if they wished.

It was pointed out that we needed to be clear that in our advertising that this is not a public meeting, but a committee meeting that the public is welcome to observe. DC offered to provide a reference for the CoRWM formulation.

**Action 2.8** DC to provide reference for CoRWM formulation

The issue was raised as to how to deal with questions from the press. AL took an action to determine the MoD guidance in this area.

**Action 2.9:** AL to provide MoD guidance

A discussion took place on how to handle questions from the public. It was agreed that these would be dealt with by the Chairman as they arose. Any questions would not be part of the meeting notes but would be attached as an Annex.

The Group agreed that the next meeting would be open to the public.

It was agreed that it would be useful to have nameplates for future meetings. It was requested that all members inform the secretary of the details of how they wish to display their names and organisations.

**Action 2.10:** All members to provide details of nameplate display requirements to the Secretary

It was also requested that future venues have a round or square table layout to assist lip readers.

## **7. ISOLUS Studies**

Chris Hargraves (CH) presented details of the ISOLUS programme, Annex E, provided in response to Action 1.11, and its relationship with the technical studies. The project is currently in the Assessment Phase which is due to complete in December 2010, when it will go to the MoD centre for approval to the recommended way forward. Between now and December 2010 the project will gather information to inform decision-making and to support formal public consultation. This will include an assessment of technical options. CH made it clear that the project scope includes the final disposal of the Intermediate Level Waste to a deep repository as well as interim storage. The programme includes decommissioning of future ISOLUS facilities, but, as submarines are still being built, these facilities could be updated to cater for future classes of submarine.

DM asked for the word "dispose" to be explained, as the radioactive elements will last for many years and to give the public the idea that we have disposed of the problem is confusing. CH asked what was the official CoRWM terminology in this respect. It was stated that CoRWM uses the term "disposal" within a careful definition, and MoD should adopt these definitions to avoid confusion in the future. The Group supported this approach.

DC explained the CoRWM decision process and asked if a similar process was intended for ISOLUS. CH explained that the original ISOLUS Concept study considered a broad range of options which were narrowed down. Ministers then endorsed the formation of the ISOLUS project to determine a suitable Land Storage option; hence the project was already part way down the CoRWM process. DC asked if an overview of the decision process was available and the ISOLUS team agreed that this would be useful.

**Action 2.11:** ISOLUS Team to produce an overview of the decision process.

WT asked how dependent the ISOLUS process was on CoRWMs proposed way ahead for robust interim storage, when the long-term interim storage and eventual disposal have not been integrated.

CH stated that ISOLUS is primarily concerned with interim storage and everybody else has the same problem as to when the eventual disposal facility will be available. The relevant issue from the CoRWM report that applies to the project is the requirement for robust passively safe interim storage with a significant life span to cope with any changes to the availability date for the disposal facility. There will be issues when it comes to siting and transport, and one of the major issues that will drive it will be the NDA's consideration of regional ILW stores or just storage at source which will have a direct impact on how we implement ISOLUS. MT stated that we are trying to get to get a cross Government approach, but we are still in discussion stage. DC requested an overview of the links and differences with the civil process, which was supported by the Group. Shelly Mobbs suggested that it would also be useful to include the time plans in this overview document.

**Action 2.12:** ISOLUS Team to produce overview of the links and differences with the civil process.

PL asked how new nuclear powered submarine build could be reconciled with CoRWM's firmly stated view that it had no position on new build. CH stated that CoRWM's stance on new build applied to the civil nuclear sector. The CoRWM inventory was based on the NIREX inventory, and the MoD submission to the Nirex inventory assumes an ongoing submarine build programme.

LN stated that it was becoming confusing with the overlaps of the roles and remits of the various organisations and suggested that it would be a useful agenda item for the next meeting.

David Senior (DS) asked for an insight on how secure the resourcing and funding was to support the programme. CH stated that approval had been gained and sufficient funding obtained for the next 3 years until the main investment decision. Future funding is contained within nuclear provisions.

PL raised a concern about the use of the term "cut-up" in association with submarine and the Reactor Compartment, which would be confusing for the public. It was agreed that the term "dismantling" should be used with regard to the whole submarine and "cut-up" should be used in the context of cutting up the Reactor Compartment. It was agreed that it would be useful to have a glossary on the website for the future.

**Action 2.13:** ISOLUS Team to produce a glossary of terms for the website.

CH presented a summary of the past and current technical studies, Annex F, and explained that he intended to produce a CD with a list of all the studies, which would have links to Plain English summaries and it would also have a link to the full report if releasable or to a statement if it is not. These studies have not been used for decisions but where they have informed a move in a certain direction it will state so. The proposal is to send this CD to the IAG for comment and would like comments on the summaries out of committee in order to get them placed on the website.

**Action 2.14:** ISOLUS Team to issue CD by 9<sup>th</sup> November 2007.

**Action 2.15:** IAG to comment on summaries by 7<sup>th</sup> December 2007.

PL stated that whilst this was a great step forward in the right direction, there was still chaos due to the lack of rationales to know where we have come from. CH stated that this CD was intended to fill that gap. PL raised another issue in that a lot of these studies are very technical, how can we be sure that they are right. CH stated that there is opportunity within the terms of reference to get a peer review if the IAG wishes.

Tub Aves expressed a concern that the study reports had not had a full independent technical assessment. CH explained that these studies were information gathering and generic. DS stated that MoD was trying to fill the gap on the "as built" records for the submarines, as it is a requirement from the Regulator to have a clear understanding of what materials went into a facility, in order to facilitate decommissioning. Unfortunately the "build" records are not as good as we would expect

today, so MoD is trying to produce a baseline from which to move forward and to ensure that there are no surprises in a few years time. PL accepted that the list was helpful but there had been a gap. The MoD accepted that there had been a gap, and was trying to fill it.

DM stated that transparency is a huge learning curve and further background information would be useful. DC suggested setting up a short induction to bring new members up to speed with the project to help demystify it. This was accepted.

**Action 2.16:** ISOLUS Team to provide a short induction for new members.

CH presented a proposal for a formal review of ISOLUS technical options, Annex G. He asked for IAG members' comments on the proposed process and what they wished their involvement to be.

PL expressed the need for clarification of the options and CH agreed to provide further information

**Action 2.17:** ISOLUS Team to issue explanatory diagram and further information by 14 November 2007.

DM stated that MoD needs to make clear that, in the conduct of the study, MOD would be responsible for assessing what is publicly acceptable, not industry. CH asked whether one of the evaluation criteria for assessing options should cover public acceptability. DC stated that it should not, because this would be covered within all the other criteria.

A question was raised regarding input from Industry. It was pointed out that the Technical Working Group, which includes representatives from Industry, would have the opportunity to comment on technical aspects of the scope of work, but not commercial aspects.

CH confirmed that the contractor to conduct the review would be chosen by open competition. The scope of work would include the proposed review arrangements.

With regard to environmental aspects (bullet 3 of the proposal at Annex G), CH explained that, in addition to statutory requirements, the project is mandated to assess environmental impacts to a MoD standard, the Project Orientated Environmental Management Systems (POEMS). The ISOLUS POEMS contractor, Frazer Nash, is already engaged in this work. It was made clear that Fraser Nash had been selected before DML took over the company and that they are now effectively part of Babcock Marine. PL asked if we were scoping a Strategic Environmental Assessment. CH stated that the current legal and policy advice was that this was not appropriate at this stage, but would be required when the Project moved from being generic to being site based. PL asked for this advice to be given to the MISG as it poses a risk to the project, and CH stated this would be addressed as part of work on the project's environmental strategy.

**Action 2.18:** CH to advise MISG on the requirement for a Strategic Environmental Assessment.

WT asked about the status of an Enviro study that was commissioned a number of years ago. CH stated that the study had been carried out in the style of a Best Practice Environmental Option Study, and would be made available for background information.

It was agreed to amend the second bullet point of the proposal at Annex G to read: "IAG to comment on scope and consultation process".

It was agreed that the most urgent task was to draft the scope of work for the study, and to send this to IAG members for comment. This would be followed by a workshop to be held on 5<sup>th</sup> December in Bristol to discuss this in more detail.

**Action 2.19:** ISOLUS team to issue draft scope of work for the study by early November.

**Action 2.20:** ISOLUS team to organise workshop.

## **8. Public Consultation recommendations**

MT had produced a Draft Progress Tracking Report, Annex H, for comment, which Dr Jane Hunt (JH) and David Whitworth had already provided written comments on. It was agreed that it would be a more useful debate to postpone this item to the next meeting when the 2 main contributors are present.

PL made a comment about c3 on page 5, which JH had raised regarding the statement on the key recommendation from CoRWM that it created a dogma and should be avoided. This point was accepted by MT and would be corrected as per JH's suggestion.

## **9. Review of "parked" issues**

Issue 4 – "A timeline of future decisions for the project" and Issue 6 – "More detail of different stages of the indicative programme" - It was agreed that these had both been effectively started at this meeting and would evolve with future work. Thus they should be kept as ongoing.

Issue 8 – "Should the group meet in public? Why shouldn't it?" – This was completed under Item 6.

Issue 9 – "Babcock – DML issue" – To remain on the list as it was still ongoing.

There were no new issues raised.

## **10. MoD ISOLUS Steering Group (MISG)**

MT stated that there had not been a MISG since the last IAG, so there was nothing to report. The next meeting would be on 8<sup>th</sup> November. For information, Alasdair Stirling has now taken over from Howard Mathers as MISG chairman

## **11. Any Other Business**

PL expressed concern regarding the reference on the Devonport visit to the Low Level refuelling route. This could be confusing to the public, as "low-level" refers to the transfer height of the used fuel, and not to the level of radioactivity.

## **12. Date and Venue of Next Meeting**

The Date of next meeting was agreed as the 10<sup>th</sup> January 2008 and it would be held at a venue near Birmingham New Street station.

## **Annex A - ISOLUS Advisory Group ToRs**

### **Core Proposal**

To set up a group to act as a sounding board for the MoD ISOLUS Steering Group (MISG) and project team, including giving input & feedback on content proposals and advising on stakeholder involvement processes.

### **Purpose of the Group:**

The ISOLUS Advisory Group (IAG) will provide a vehicle for conducting independent assessment of initiatives and outcomes, and to furnish a conduit for providing scrutiny, advice and counsel to the MISG aimed at facilitating the ISOLUS programme.

The roles of the group include:

- Act as a sounding board for proposed initiatives and strategies.
- Provide early input and feedback on the content of proposed scopes of work.
- Provide early input and feedback on strategies and the outcomes of reports.
- Input into the scope of requirements for Independent Peer Review/Research.
- Advise on public and other stakeholder involvement in engagement activities.
- Monitor implementation of the recommendations from the Consultation on ISOLUS Outline Proposals (CIOP) & the Front End Consultation (FEC).
- Consideration of ethical issues that arise.
- Act as the ISOLUS Process Guardian.

### **Membership:**

Membership of the IAG is through personal invitation. Membership will be a standing item on the IAG agenda, as the composition will evolve to reflect the focus and priorities of the Project as it develops. Deputies are allowed if fully informed and able to contribute to the meeting.

The Chair will be a member of the MISG.

The proposed Core and Correspondence members are shown at Annex A.

### **Conduct of Business:**

The IAG shall normally meet up to 4 times a year, prior to and following MISG meetings. Additional meetings may be held as required. In general:

- The Secretary will issue notes of meetings and discussions will also be recorded for record purposes. After ratification by members, notes of meetings will be published on the ISOLUS website.
- Business will be transacted and reported in an open and transparent manner. The rationale will be explained behind any decisions to withhold information such as security classification or commercial issues.

- Business may be conducted by correspondence where appropriate.
- Sub groups may be formed to look at specific issues.

**Resources:**

The MoD will fund attendees the following when not covered by parent organisation:

- Attendance fees.
- Reasonable travel & subsistence at cost.

The MoD will fund the secretariat and facilitation of the IAG meetings

The MoD will fund Independent peer reviews/research where the scope of requirements have been identified and agreed as reasonable by the IAG and the ISOLUS Project Team.

**Review:**

These ToRs will be reviewed annually or earlier if necessary.

### Annex B - Membership of ISOLUS Advisory Group

STAKEHOLDER	Core Member (Y / N)	Ad-hoc Member (Y/N)	Corres- pondence Member Y/N)
British Nuclear Energy Society (BNES)	Y	-	-
Campaign Against, Nuclear Storage And Radiation (CANSAR)	Y	-	-
Committee on Radioactive Waste Management (CoRWM)	Invited		
Construction Industry Research and Information Association (CIRIA)	Invited		
Convention of Scottish Local Authorities (CoSLA)	Invited		
Cumbria Local Liaison Committee	-	-	Y
Devonport Local Liaison Committee			
Department for Transport (DfT)			
Environment Agency (EA)	Y	-	-
Ethicist - Dr Kate Rawles	-	Y	-
Friends of the Earth	Invited		
Greenpeace	Invited		
Health and Safety Executive (HSE) - Nuclear Installations Inspectorate (NII)	Y	-	-
Health Protection Agency (HPA)	Y	-	-
Independent Specialist - David Collier	Y	-	-
Institution of Marine Engineers	Invited		
Institution of Nuclear Engineers	Y	-	-
Lancaster University	Y	-	-
Member of the Public - Ms Sonia Sutcliffe	Y	-	-
MoD ISOLUS Team - Mr Chris Hargraves	Y	-	-
Naval Base Commander - Clyde	Y	-	-
Naval Base Commander - Devonport	Y	-	-
Nuclear Decommissioning Authority (NDA)	Y	-	-
Nuclear Free Local Authorities	Y	-	-
Nuclear Information Service	Y	-	-
Nuclear Legacy Advisory Forum (NuLeAF)	-	-	Y
Nuclear Submarine Forum	Y	-	-
Plymouth Peace and Justice	Invited		
Rosyth Local Liaison Committee			
Scottish Environmental Protection Agency (SEPA)	Y	-	-
Scottish Executive Environmental and Rural Affairs	Y	-	-
University of Warwick	Y		
<b>Other Membership Recommendations</b>			
Independent Consultation Skills			
Industry Specialists			
University Student			
Member able to provide a Technical critique			

## **Annex C - Stakeholder Engagement and Communications Strategy**

### **Aim**

The aim of this document is to provide a broad statement of principles for stakeholder engagement and communications for project ISOLUS.

### **Background**

The ISOLUS project has undertaken two formal rounds of public consultation: the Front End Consultation (FEC)<sup>1</sup> and the Consultation on ISOLUS Outline Proposals (CIOP)<sup>2</sup>. In addition to future formal public consultation, the project is engaging with stakeholders on an ongoing basis via the ISOLUS Advisory Group and MoD ISOLUS Steering Group.

### **Why?**

The Ministry of Defence (MoD) is committed to a policy of openness and transparency for project ISOLUS. Our aim is to carry out work in as transparent a way as possible, so that it will be clear how and why decisions have been made. We also aim to be clear how we have taken into account feedback and advice from stakeholders. We believe this is key to building public confidence in the project.

### **Who with?**

The MoD wants to engage with anyone who has an interest in, or will be affected by, the project, in a manner that enables stakeholders to participate in a constructive and positive way.

### **On what?**

Key project activities, such as technical options, siting criteria, Strategic Environmental Assessment and Public Consultations.

### **Where?**

We are focused at a national level, and will move progressively to local levels as siting options become known.

### **When?**

We will make information available in a timely manner for each activity, so as to allow reasonable opportunity for comments or questions.

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<sup>1</sup> Published by Lancaster University Nov 2001

<sup>2</sup> Published by Lancaster University May 2004

## **How?**

We will use a variety of communication mechanisms, including meetings, written reports, workshops, e-mails, newsletters and website, selecting the most appropriate methods for each activity. Information will be made available with varying degrees of technical content to enable stakeholders to engage at an appropriate level.

All the information will be available on the ISOLUS website -

*[www.isolus.org.uk](http://www.isolus.org.uk)*

## **What will be withheld?**

The operating principle for the ISOLUS project is that information will only be withheld by exception. We will explain the rationale behind any decision to withhold information such as security classification or commercial issues.

## **Annex D - Public Meetings Proposal**

### **DRAFT FOR DISCUSSION**

The ISOLUS Advisory Group (IAG) meetings will be open to members of the public. Numbers are limited and will be allocated on first come first served basis. The closing date will be one week before the meeting in order to make domestic arrangements.

Members of the public will be given the following guidelines:

- They will be asked to introduce themselves along with the members during the introductions at the start of the meeting.
- They will be welcome to observe the meeting, no questions will be asked during the meeting, after the meeting there will be a Question and Answer Session. If there is insufficient time to answer all the questions a written reply will be sent to the questioner. All Questions and Answers will be placed on the website.
- They will be able to network and interact with the IAG members during the breaks.
- They will be requested not to bring placards, banners or notices into the meeting room.
- They will be advised that a sound recording is made of the proceedings and that any photography, video or other sound recording of the proceedings will not be permitted without permission.

**Annex E - ISOLUS Outline Programme**  
**Reactor Compartment Interim Storage**

<b>Activity</b>	<b>Date</b>
Approval to complete Assessment Phase	May 07
Issue request for Contractor Proposals	Aug 08
Responses in / Evaluation commences	Apr 09
Main Public Consultation	Jul 09 - Oct 09
Evaluation complete / Project recommendation	Jul 10
MoD Centre approval achieved	Dec 10
Regulatory Approvals Phase (Planning, NII, EA, DfT, Public Enquiry, etc.)	Jan 11 - Jun 13
Build and use Submarine Cut-up and Interim Storage facilities	2014 - 2042
Design & Build Reactor Compartment Cut-up facility	2042 - 2043
Cut-up and Dispose of RC's	2044 - 2058
Decommission Facilities	2059 - 2061

## **Annex F - ISOLUS Technical Studies**

In the past the following Technical studies have been undertaken:

- Intermediate Level Waste (ILW) Transportation: Review and update previous paper on ILW Transportation, with particular emphasis on the practicalities of Reactor Compartment (RC) Transport.
- Primary Circuit penetration of C14 and Tritium: A research study to determine the depth of diffusion, penetration or migration of Tritium and Carbon-14 into the walls of Primary Circuit pipework.
- Reactor Compartment Radiological Levels: A research study to develop a simple model that will inform decisions on the safe storage period for decommissioned submarines
- International Lessons Learnt: A study of two Nuclear Decommissioning Projects in the Context of Project ISOLUS.
- Non-metallic RC waste streams. A study to identify materials within the Reactor Compartment other than metals which may need to be disposed of as radioactive waste.
- Decontamination Methods & Value Engineering Study: Determine available decontamination methods, consider hazards and waste streams generated by each process, and consider the advantages/disadvantages of each process, particularly with respect to whole plant versus batch decontamination.
- Characterisation of Material: Characterisation of radioactive waste within the RC and casing/hull local to the RC.
- Non-Nuclear Hazardous Material Assessments: Identification and categorisation of potential non-nuclear hazardous material within the whole submarine.
- Reactor Compartment Dismantling Facility Study: Outline design for Reactor Compartment Dismantling Facility

The following studies are currently in progress:

- Intrusive radiological Survey external to the RC to support Monitoring Protocol. A study to categorise the mechanical systems and electrical cables that penetrate Reactor Compartment Bulkheads and to determine the probability of radiological contamination.
- Non-intrusive radiological surveying external to RC to support Monitoring Protocol: A study to determine the probability of radiological contamination and subsequent monitoring methods of systems and areas out-with the Reactor Compartment. Detailed radiological surveys of the areas and systems outside the RC
- Non-Nuclear Hazardous Material Assessments: Identification and categorisation of potential non-nuclear hazardous material within the whole submarine.
- ILW Management Options: The study considers the advantages and disadvantages of the options available for the interim storage of ILW. Using CoRWM and International Atomic Energy Agency Guidance.

## **Annex G - PROPOSED REVIEW OF ISOLUS TECHNICAL OPTIONS**

### **Background**

The ISOLUS project assessment phase is required to address issues associated with the technical solution for cutting-up and disposing of defuelled nuclear submarines, and the interim storage and final disposal to a national facility of the associated Intermediate Level Radioactive Waste (ILW).

The projects baseline programme is based upon the option of the cut-up and disposal/recycling of the fore and aft of the submarine, the interim storage of submarine Reactor Compartments (RC's), and when a national ILW disposal facility is available, the building of an RC cut-up facility and the disposal of the resulting wastes. Options have also been identified to cut out the Reactor Pressure Vessel and place it into interim storage, or completely cut up the RC and RPV, producing packaged ILW for interim storage.

Public consultation recommendation CIOP 34 noted that any move away from the assumption of RC storage should be justified. Since the CIOP consultation in 2003, CoRWM has made comment on the interim storage of ILW, and the project has considered the relative merits of the interim storage options.

### **Requirement**

There is evidence which requires that the baseline assumption be reviewed, and we wish to consider such a review before further proposals are requested from industry. In line with our commitment to consult before significant decisions are made, any proposal to revise our baseline assumption would be subjected to appropriate consultation.

### **Proposal**

The following process is proposed -

- Project to draft scope of work for study
- IAG to comment on scope
- Environmental contractor to document any significant environmental effects of the options
- Review contractor to propose evaluation criteria
- IAG to comment on criteria and consultation process
- Contractor undertakes review
- Consultation on findings
- Project considers whether to change baseline assumption

IAG members are requested to comment on the above proposed process. Members views on which elements of the process should be considered in or out of committee would be welcomed. The answers to any clarifications requested will be circulated to all members.

It is proposed to carry out the work within the next six months.

Chris Hargraves  
ISOLUS1

02/01/2008



**INTERIM STORAGE OF LAID UP SUBMARINES (ISOLUS)**

**PROGRESS TRACKING REPORT**

**on**

**FRONT END CONSULTATION (FEC)**

**&**

**CONSULTATION on ISOLUS OUTLINE PROPOSALS (CIOP)  
CONSULTATION RECOMMENDATIONS**

## Glossary

<u>ALARP</u>	<u>As Low As Reasonably Practicable</u>
<u>BAT</u>	<u>Best Available Technologies</u>
<u>BPEO</u>	<u>Best Practical Environmental Option</u>
BPM	Best Practicable Means
CIOP	Consultation on ISOLUS Outline Proposals
CoRWM	Committee on Radioactive Waste Management
CSEC	Centre for the Study of Environmental Change
DA	Devolved Administrations
DBERR	Department for Business, Enterprise and Regulatory Reform (formerly DTI)
DEFRA	Department for the Environment, Food and Rural Affairs
DTI	Department for Trade and Industry
EA	Environment Agency
EIA	Environmental Impact Assessment
ENGO	Environmental Non-Government Organisation
FEC	Front End Consultation
HLW	High Level Radioactive Waste
ILW	Intermediate Level Radioactive Waste
ISOLUS	Interim Storage of Laid Up Submarines
ITN	Invitation to Negotiate
LLW	Low Level Radioactive Waste
LMU	Liabilities Management Unit (precursor to NDA)
MoD	Ministry of Defence
MRWS	Managing Radioactive Waste Safely
NDA	Nuclear Decommissioning Authority
OGD	Other Government Department
OSPAR	OSlo-PARis (Convention on the Protection of the Marine Environment of the North-East Atlantic)
RC	Reactor Compartment
REPIR	Radiation (Emergency Preparedness & Public Information) Regulations
SE	Scottish Executive

SCPA  
WSA

Scottish Environment Protection Agency  
Warships Support Agency

## **GUIDANCE**

CIOP Recommendations are preceded by the letter C i.e. C10.

FEC Recommendations are preceded by the letter F i.e. F21.

Where appropriate, similar recommendations have been combined, with the Recommendation number taking the format F??/C??.

For easy reference, FEC text has been retained *[in square brackets and italics]*.



No.	Text	Response	Progress
C1	<p>The MoD should demonstrably liaise closely with the Scottish Executive, other government departments, including DTI (Department for Trade and Industry) and DEFRA (Department for the Environment, Food and Rural Affairs), and with CoRWM (Committee on Radioactive Waste Management) and the LMU (Liabilities Management Unit)/NDA (Nuclear Decommissioning Authority), especially with regard to potential sites and to ensuring that ISOLUS decisions remain consistent with developing national strategy. The proposed timing of ISOLUS decisions and implementation should be reviewed against the timetables for the NDA and CoRWM, and decision points identified to ensure that ISOLUS does not pre-empt or contradict other government strategy, but is integrated with developing strategy, and is able to demonstrate this.</p>	<p>Future consideration of potential interim storage sites by the MOD will be closely aligned with CoRWM deliberations on options for a long-term radioactive waste management solution for the UK, which is expected to be available to Government in 2006. Therefore, no further work will be carried out by the MOD on the potential interim storage sites already named, or to identify other potential sites, until CoRWM has made its recommendations to Government</p> <p>The ISOLUS Project routinely liaises with Other Government Departments (OGDs) and the Devolved Administrations, including DTI, DEFRA, and the Scottish Executive (SE). The project is also attending joint meetings with CoRWM and the DTI/NDA.</p> <p>The relationship with the NDA will be developed as they further staff up in 2005 (See CIOP Recommendation Response 46)</p>	<p>CoRWM's report was issued in July 2006, and Government and the Devolved Administrations responded in October 2006. In developing a way forward for dealing with radioactive materials arising from decommissioned submarines, MOD will ensure that it is integrated as far as possible with the developing wider Government policy post-CoRWM. MoD continues to engage with OGDs and DAs on all matters associated with Project ISOLUS. MOD has established the MOD ISOLUS Steering Group (MISG) whose members include, among others, the Department for Business, Enterprise and Regulatory Reform (DBERR) (formerly DTI), DEFRA, SE and NDA. The MISG is supported by the ISOLUS Advisory Group (IAG). Notes of MISG and IAG meetings are available on the ISOLUS website. MoD is also a member of the Engagement Liaison Group which has been re-convened by the NDA to enable better co-ordination between national stakeholder engagement processes in the UK nuclear sector. The record of meetings is published publicly and is available on the ISOLUS website.</p> <p><i>Reviewed: Sept 07</i></p>

No.	Text	Response	Progress
C3	<p>The MoD should consider, and if possible undertake, postponing a short-listing decision and a final decision until after a national long term radioactive waste management strategy has been agreed, in order to ensure compatibility between the interim storage of the submarine wastes and the long term national radioactive waste management strategy, and so that communities can properly assess the implications of the storage of the submarine wastes in relation to the national strategy.</p>	<p>No decisions will be made on interim storage for submarine wastes until CoRWM has made its recommendations to Government. In the meantime, work under Project ISOLUS will concentrate on technical studies aimed at identifying and assessing the various options for dismantling submarine hulls and handling irradiated and other materials.</p>	<p>CoRWM's report was issued in July 2006, and Government and the Devolved Administrations responded in October 2006. The key recommendation of the CoRWM report most relevant to Project ISOLUS is that a programme of robust, safe and secure long term interim storage of Intermediate Level Waste (ILW) is required until the geological disposal facility is established. This aligns with the ISOLUS requirement for long term interim storage of ILW, pending development of a final disposal solution. MoD will ensure that future decisions on interim storage of submarine wastes are compatible with the Government's developing long term national</p>

			radioactive waste management policy. <b>Reviewed: Sept 07</b>
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No.	Text	Response	Progress
C4	Wider government recognition and attention should be paid to those issues which are being identified in relation to ISOLUS (as well as elsewhere) which are relevant to the successful implementation of a national radioactive waste management strategy, as well as to the successful implementation of ISOLUS, and the necessary measures should be put in place to enable widespread public acceptability. These measures include the decisions on and provision of compensation and community benefit, resourcing for local community participation, and full provision of data and assessments.	<p>MOD is committed to securing the widest public acceptance of any interim storage site(s). However, it is recognised that the issues of compensation, community benefits and the provision of appropriate data, will need careful consideration.</p> <p>The experiences of the ISOLUS Project have influenced developing policy for Managing Radioactive Waste Safely and CoRWM, and we have made it clear that CoRWM will influence the future development of Project ISOLUS.</p>	<p>CoRWM's report was issued in July 2006, and Government and the Devolved Administrations responded in October 2006. The response recognised that further consideration needed to be given to a range of issues relating to involvement of local communities in implementing the national policy for the management of long term radioactive waste. This included the issue of compensation and community benefits.</p> <p><b>Reviewed: Sept 07</b></p>

No.	Text	Response	Progress
C6	Community benefit, above and beyond planning gain and employment benefit, should be provided wherever the waste is managed and stored. The availability, extent, and form of community benefit should be made clear when proposals are made. Local communities should decide on the most appropriate form of community benefit.	As noted in CoRWM's consultation document of the 1 <sup>st</sup> November 2004 at paragraph 12(iii), and in accordance with the Government's statement on MRWS, their recommendations may include comment on whether local communities should be offered incentives. MOD recognises that the provision of compensation and community benefits will need careful consideration across Government and will consider this issue in the light of CoRWM's recommendations.	<p>CoRWM's report was issued in July 2006, and Government and the Devolved Administrations responded in October 2006. Their response recognised that further consideration needed to be given to a range of issues relating to involvement of local communities in implementing the national policy for the management of long term radioactive waste. This included the issue of compensation and community benefits.</p> <p><i>Reviewed: Sept 07</i></p>