

## **Dounreay Stakeholder Group briefing note**

### **Scottish Government Higher Activity Waste Implementation Strategy Project Board PB06 Meeting 21<sup>st</sup> November 2013**

**Note by David Broughton, DSG representative**

#### ***Introduction***

1. 17 members attended, including 3 by telephone (the author, Alex Anderson, DSRL and Frans Boydon, ONR). There were 3 apologies which included Charlie McVay, DSRL.
2. The NDA and SLCs had done substantive work on Work Packages (WP) 1 and 2 and presented their results verbally with overheads. Scottish Government (SG) had produced a first draft of WP4. SG had only addressed 1 out of 7 of its actions.
3. SG intends to go out to consultation on a draft Higher Activity Waste Implementation Strategy (HAWIS) in March 2014. The author considers this is challenging as it is unclear whether SG has the resource to meet this timescale.
4. The author's opinion that the lack of a HAWIS is not affecting the current work of the SLCs was substantiated further at this Project Board (PB) meeting. Details are given in this note (see para 6). The author believes Scottish Government (SG) realises this and the production of the HAWIS is not high on its agenda. The referendum on Scottish Independence appears to the author to be dominating civil servants' thoughts and work.

#### ***Key Points on strategy at Dounreay***

5. NDA's strategy for Dounreay is that it will be in its Interim End State around 2023-5. All LLW will have been disposed of in the new LLW disposal facilities and all HAW will be packaged and in stores suitable for at least 100 years without major intervention required. The reactors will have been dismantled down to ground level at least and any remaining radioactivity in ground or below ground structures will be at levels acceptable to SEPA.
6. The strategy at the other Scottish reactor electricity generating sites is completely different. At these, only post operational clean out (POCO) is planned to be undertaken at cessation of operations in the 2020 -30 period, or is currently underway at the Magnox stations. Only small quantities of LLW and HAW will be produced during POCO. The reactor buildings will then be "cocooned" as "safestores" for around 100 years to allow for radioactivity decay. This will allow easier and cheaper dismantling in 100 years time and it is at this time that the large quantities of LLW and particularly HAW will arise. The other key factor in this strategy is that dismantling will not start until a full route to disposal of HAW is in existence.
7. The observation is that once again Dounreay is in a category of its own!

#### ***Progress of the Work Packages (WP)***

8. WP1 – Overview of Scottish HAW Inventory
  - NDA produced a series of slides mainly pie-charts showing the proportions of the different types of HAW and the times of arising.
  - The majority of HAW is graphite and arises at site clearance from 2070 onwards. There is little opportunity of reducing the volume of graphite.
  - Apart from Dounreay only small amounts of HAW arise in the next 20 years.
  - Must decide on HAW strategy and route for storage & disposal before any dismantling starts as do not want double handling and extra dose to operators.

- SG said that these decisions will be taken before 2070.
  - Inventory will be reviewed in Spring 2014 .
9. WP2 – Overview of HAW in Scotland
- DSRL, EDF and Magnox each gave a presentation on their current baseline programmes outlining timescales for decommissioning and waste arisings, and the volumes and types of HAW.
  - *DSRL- Dounreay*
  - Overall strategy explained as given above in para 5
  - Cemented raffinate in 500l drums
  - Steel from reactors in 6m<sup>3</sup> concrete boxes
  - Shaft/Silo HAW in concrete WAGR boxes or Trushield steel/lead boxes
  - Cannot get Pu or U out of HAW
  - No chance of near surface disposal for 1000s of years
  - 400>600 6m<sup>3</sup> concrete boxes, 4000>6000 340l Trushield boxes, 8000 500l drums; all to be stored
  - Under current policy, question is how many times do stores have to be re-built.
  - *EDF – Torness, Hunterston B*
  - 95% HAW will not arise until 22<sup>nd</sup> century
  - Only sludges at present need treatment and storage
  - Need a decision ideally by 2015 but no later than 2020 on whether storage can be accommodated in Hunterston A ILW shielded store
  - Hunterston SSG representative asked for an EDF/Magnox/NDA person or persons to speak to the Hunterston SSG about the implications of Hunterston B HAW going into Hunterston A store. Would like a paper from Magnox and peer reviewed by the SSG.
  - *Magnox – Chapelcross, Hunterston A*
  - In England Magnox stations have a strategy for HAW of geological disposal
  - In Scotland Magnox stations have no long term strategy for HAW so all options have to be kept open
  - However all HAW forms are being put through the NDA (RWMD) Letter of Compliance (LoC) process for suitability for geological disposal whether arising in England or Scotland
  - Final site clearance when majority of HAW will be produced is planned for 2070 - 2095
10. WP3 – Near Surface Waste Compatability
- A workshop is to be held on 22<sup>nd</sup> November 2013 and ONR and DSRL will attend with Magnox and EDF
  - More opportunity for Magnox than Dounreay
  - Need common criteria for assessment, purpose of workshop
  - Criteria will not include location for near surface disposal
  - For HAW needing treatment for allowing near surface disposal SG may need to decide on permissions for disposing of radioactivity from the treatment in another country
  - Target is to complete WP in March 2014
11. WP4 – Responsibility to Deliver
- SG paper produced but not discussed
  - Comments requested and author will send in DSG comments via June Love (see Appendix 1).
  - The paper sets out the existing roles of the major players and briefly flags up the issues that would need to be addressed if Scotland became independent e.g. regulatory functions of ONR and status of NDA, funding etc.
  - The paper restates many issues that were obvious at the outset of developing a HAWIS but are still not resolved
12. WP5 – Regulatory Issues

- SG is to convene a meeting with SEPA and ONR on retrievability and monitoring
- The action is for SG and ONR to develop a high level document on guidance for retrievability w.r.t . Site Licences
- ONR said more clarity and scope was needed on this issue
- There is sufficient guidance on monitoring, SG does not need to do more than point to this guidance

***Discussion of Progress***

13. SG said that it was still “taking stock” and thinking about the timeline for completing work and reviewing it.
14. First draft paper on “Consultation on HAWIS” is to be submitted at the next PB in January 2014.
15. There is still some confusion between consulting on “baselines” and “strategy”
16. There is still a decision to be made on whether a SEA is required. SG thinks one is needed and could be done in time. (CoRWM’s view was that one was not needed and that individual EIAs were more appropriate).

Appendix 1

**Scottish Government  
Higher Activity Waste Implementation Strategy Project Board  
PB06 Meeting 21<sup>st</sup> November 2013**

**Action – Comments on SGHAWIS/WP4/Govpap/v1.0**

**Note by David Broughton, DSG representative  
3<sup>rd</sup> December 2013**

***General Comments:***

- Throughout the paper the grammar needs correcting to recognise that NDA, Scottish Government, Project Board, committee etc. are collective nouns that are singular; so for example NDA **is** or **has** or **holds**, **not** are or have or hold.
- Although a reference has been placed on the paper no date has, all papers should have a reference and a date

***Using the paper's paragraph numbers:***

1 - ...set out **what** the current...

2 – Scottish **Environment**

5 - ...relevant **UK and Scottish** government....

13 – SG might want to reflect on the PAC assessment of NDA's scrutiny and PBOs performance

16 – ditto as 13

Table 1 – Babcock now Cavendish

31 – check with SEPA but SEPA does not regulate “radioactive activities” other than disposal, the bulk of regulation is with ONR

32 – have to regard Scots Law and HAW policy

38 – write out in full for first time “Interim End State”

39 – agree this is a key issue as contracts between NDA and PBOs finish at IES

41 - ...LLW **Disposal** facility...

45 - ...fundamentally different **from**....

47 -...need to be more circumspect about RWMD becoming competent as the overarching organisation to implement geological disposal, it may become a part of a much more substantial international/UK national organisation

48- need to say “ a feasible option for **what**(?)”

49 -...only SG can pursue this and it is reluctant to do so

50 - ...any robust study would of necessity have to consider the costs of disposing of Scottish HAW in the UK geological disposal facility and compare that to near surface disposal and C&M and perpetual rebuilding of stores