

CoRWM Open Plenary Agenda

Wednesday 22nd May 2024

Timing: 10:00 – 12:00

Chair: Nigel Thrift (CoRWM Chair)

Members: Penny Harvey, Ray Kemp, Mark Kirkbride, Derek Lacey, Stephen Tromans, Simon Webb, Claire Corkhill, Clare Bond and Malcolm Joyce

CoRWM

Secretariat

DESNZ: Adam Draude, Josie Carlton and Shubhnit Seera

Apologies: Barry Lennox, Penny Harvey

Agenda:

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| 1. Meeting open, welcome, and introductory comments (Chair) | 10:00 |
| Chair's recent meetings | |
| 2. Declaration of Interests | 10:10 |
| 3. Approval of Minutes from the March Open Plenary | 10:15 |
| 4. Update on Subgroup Activities and Plans | 10:20 |

Key topics:

- a. SG 1 Working with Communities (Penny Harvey)
- b. SG 2 GDF Geology and Delivery (Mark Kirkbride)
- c. SG 3 Planning and Regulation (Ray Kemp)
- d. SG 4 Scottish Government Activities (Clare Bond)
- e. SG 5 Welsh Government Activities (Stephen Tromans)
- f. SG 6 Storage of Waste, Spent Fuel, and Materials (Derek Lacey)

5. Presentation: “NEA’s Approach to Back-End Management for Advanced Reactors”

Speaker – Gabriele Grassi (Deputy Head of the Division of Radioactive Waste Management and Decommissioning at OECD Nuclear Energy Agency) 11:00

6. **Questions from the public** 11:45

7. **Any other business** 11:55

8. **Next Meeting:** 12th September 2024, Anglesey

Close of Meeting and lunch **12.00**

Minutes

Agenda item 1. Meeting open, welcome, and introductory comments (Chair)

1. CoRWM had numerous visits since the March 2024 plenary - visits to Dounreay and Vulkan (blog here), Hinkley point B and C (blog to be published on website).
2. CoRWM also have numerous visits planned, most likely to Theddlethorpe, one of the communities in the GDF siting process and Spain (Cordoba) to visit a near surface disposal facility.
3. CoRWM have been finalising their annual report and work programme which should be published in the Summer.
4. DESNZ have requested CoRWM consider the following as part of their work programme: :
 - a. Review the NDA's assumptions and strategies for managing radioactive waste inventory in the UK, with an emphasis on prolonged interim storage – and the opportunities afforded by Near Surface Disposal (NSD) of certain intermediate level wastes.
 - b. Considering and advising on claims of “waste burning” reactors
 - c. Continue to provide advice NWS and the Government on the delivery of the Geological Disposal Facility (GDF) – with a particular focus on maintaining and increasing community support
 - d. Advice to the Government on the High Temperature Gas-cooled Reactors demonstration programme on waste management –.
 - e. Following the work CoRWM completed on SMR/AMRs, continue to engage with the department, regulators and industry on wastes and spent fuels from new-generation reactors.

Agenda item 2. Declaration of Interests

5. Stephen Tromans has been working with EDF, DESNZ and AWE. Unrelated to CoRWM's remit but are in the nuclear field.

Agenda item 3. Approval of Minutes from the March Open Plenary

6. Approved

Agenda item 4. Update on Subgroup Activities and Plans

Key topics:

SG 1 Working with Communities (Claire Corkhill)

7. On 13th March Penny Harvey (PH) visited the British Geological Survey, Nottingham with NWS Siting and Engagement Team and members of the Theddlethorpe Community Partnership. NWS site evaluation team gave an update on their timelines and on their work with supply chains, and BGS staff introduced the research and the data resources of the BGS. They were also shown around the core store, and the core scanning labs.
8. SG1 joined the CoRWM visit to Dounreay and to the Vulcan sites (25th-28th March). There was an immersive hands on experience at the North Coast visitor centre in Thursow –CoRWM noted something similar could be useful for the engagement process for the GDF
9. NWS Acting Head of Siting, organised a visit to W. Cumbria for members of the Community Engagement Advisory Panel (CEAP). On 3rd April CK, ET and PH met with Mary Bradley, former Chair of the Allerdale CP. On morning of 4th April, they visited the LLWR at Drigg, and were joined by Martin Walkinshaw (Chief Operating Officer), Paul Skelton (Programme Director), Samantha McKenzie (Regional Comms and Engagement Manager) and Emma Walker (Communications Officer). On the afternoon of 4th April, the CEAP met on Teams with the other members Ben Belfadhel (NWMO), Claes Thegerström (SKB) and Annabelle Lillycrop. CoRWM has asked NWS on an update on the youth forum.
10. SG1 members joined visit to Hinkley Point B and Hinkley Point C on April 5th.
11. The planned CoRWM visit to Theddlethorpe 17th/18th April did not go ahead, but aim to reschedule in the near future.
12. Stephen Brown took on the role of Subject Matter Expert for Social Sciences within NWS in March 2024 and is actively engaged in the development and connection of social research to the siting and engagement process. Together with Patrick Hackett (Research Support Office (RSO)) PH and SB organised an RSO sponsored meeting of an emerging social science academic network, that draws together work that the RSO is already sponsoring. The event was held from 2nd-3rd May at NWS, Harwell. Representatives from six UK Universities attended (Cambridge, Exeter, Lincoln, Manchester, Portsmouth, Teesside) including 5 funded Ph.Ds/post-docs and their supervisors).

SG 2 GDF Geology and Delivery (Mark Kirkbride (MK))

13. Members of SG2 attended site visits to Dounreay, Vulcan and Hinkley Point B & C.
14. MK produced a summary report for the Hinkley Point B & C site visit which will be published soon.
15. SG2 members attended the biannual NWS and CoRWM workshop on May 8th and 9th, discussing numerous issues. The NWS position on an underground research facility for a GDF was a key topic of interest within the workshop.
16. CoRWM set out its historical recommendations in relation to the Research and Development requirements, particularly those relevant to an Underground Research Facility (URF) ongoing work.

17. CoRWM are continuing work on a paper on the potential need for a URF. The paper is in the process of being updated following on from discussion with NWS on their current strategy for a URF and subsequent discussion at the NWS and CoRWM workshop. This revision will also accommodate comments received from the Environment Agency (EA) and Office for Nuclear Regulation (ONR) and the historical CoRWM recommendations.
- 18.

SG 3 Planning and Regulation (Ray Kemp)

19. SG3 members met with NWS on 10 April and attended a workshop with NWS on May 8th and 9th, discussing numerous issues around planning and regulation. SG3 continues to have a particular interest in how the DCO process encompasses NWS' various planned activities.
20. SG3 members joined the CoRWM visits to the Dounreay and Vulcan sites in late March, and also the visit to Hinkley Point B and the Hinkley Point C construction site on April 5th.
21. RK and SW are reigniting efforts to work on CoRWM's draft paper on transport considerations while all members are contributing to CoRWM's interest in whether and how a URF fits into NWS' GDF programme.
22. SG3 will meet with the EA on June 18th to discuss URFs and will be looking to arrange a similar meeting with the ONR as soon as convenient.
23. Following the EA meeting SG3 will then meet with NWS on June 19th.
24. SG3 are considering a dedicated visit to Hinkley to focus on transport/regulation matters.

SG 4 Scottish Government Activities (Clare Bond)

25. SG4 and other CoRWM members visited NRS Dounreay and Vulcan in March. During the visit to Dounreay CoRWM members were given an overview of the scale of the problem and challenges faced in the decommissioning of the site, the last reactor ceased operation in 1994. CoRWM member Barry Lennox wrote a blog of the visit which has been published onto the CoRWM website. The following summary incorporates some of the blog. The Dounreay site has approximately 50 facilities that have a history of radioactive use and cover every aspect of the nuclear fuel cycle, from fuel fabrication to chemical separation and the disposal and storage of waste. CoRWM members visited the Low-Level Waste Facility, which has two near surface disposal vaults. These vaults are expected to provide safe disposal for 80% of the low-level waste located on the Dounreay site. We were able to walk inside these facilities and see the ISO containers that have already been immobilised within the vault. The next part of the visit was to the cementation facility within the Fuel Cycle Area. The facility immobilises high-active raffinates (liquids separated during reprocessing) by mixing them with cement powder. The immobilised waste is then stored in 500-litre drums. There were wide ranging technical discussions on the progress that has been made with immobilising the waste from the Materials Test Reactor and the Dounreay Fast Reactor and the relative pros and cons of cement

immobilisation versus vitrification. CoRWM members also heard about the challenges in decommissioning the site's shaft and silo storage, and the prolonged period over which this decommissioning is planned to be undertaken. NRS Dounreay has enormous technical expertise in nuclear waste handling, which will be invaluable as the UK progresses its ambitious nuclear programme, CoRWM noted that this expertise could make a significant contribution to ensuring that problematic waste streams are avoided in future advanced modular reactor designs. At Vulcan, they were given an overview of the site and its history, hearing from both the MOD and Rolls Royce on the site and research. They were given a tour of the replica submarine and control centre.

26. The next Higher Activity Waste in Scotland Strategy Implementation Group (HAWSSIG) has been scheduled for September 25th.
27. The first cross part group on nuclear decommissioning held its first meeting in the Scottish Parliament on March 27th, the first meeting introduced the NDA and the NRS decommissioning activities and opportunities in Scotland, and also considered supply chains. The next meeting will be on June 25th and will focus on 'skills'.

SG 5 Welsh Government Activities (Stephen Tromans (STKC))

28. Matters are progressing for CoRWM members to visit Wylfa power station in September.
29. SG5 are keeping an eye on developments at Trawsfynydd power station. It has not been chosen as a site for SMRs, though it hasn't been ruled out for future developments,
30. STKC will attend a Wales Nuclear Forum meeting in Cardiff on 23 May on issues of skills and personnel in decommissioning and other areas.

SG 6 Storage of Waste, Spent Fuel, and Materials (Derek Lacey)

31. SG6 continue to gather information on interim storage of radioactive waste. Specific areas of interest include the NDA's stores export strategy, which is a scenario-based approach to scheduling the final disposal of waste currently in interim storage and the NDA's thermal treatment strategy, which has the potential to bring benefits of volume reduction for both interim storage and disposal.
32. UK Policy Framework for managing radioactive substances and nuclear decommissioning was published on 16 May - recognises that some intermediate level waste may not need the level of isolation and containment offered by a GDF and creates an opportunity for the development of near surface disposal subject to demonstration of safety and the protection of the environment. CoRWM has maintained an interest in the development of this option for several years and has some general observations. It doesn't affect the need for a GDF and could be suitable for some wastes e.g cementitious material. SG6 will continue to monitor developments related to near surface disposal.

33. SG6 has also been considering the implications of SMRs and AMRs for interim storage and the inventory for disposal:
- a. For SMRs waste management seems straightforward, as they're building on experience from operating large nuclear power plants – there would appear to be sufficient information to support justification, generic design assessment (GDA), development of funded decommissioning.
 - b. AMRs offer some advantages in contributing to net zero but the technologies are less well developed or understood, with evidence relating to waste management to support the regulatory and financing processes limited. CoRWM has found that a process is in place to address the need for clarity on waste management implications where developers can request that NWS conduct a disposability assessment for advice in relation to disposability in a GDF to support justification, GDA and financing. This process should drive vendors to develop claims arguments and evidence for waste management and to conduct appropriate Research and Development. CoRWM's view is that work on this should start early and should be comprehensive i.e. it should consider the treatment necessary to create a passive waste form that is suitable for disposal in a GDF.
 - c. The subgroup will also be considering AMRs that are referred to as waste burning reactors.
 - d. The subgroup will also be looking at the specific waste management implications arising from deployment of a HTGCR. CoRWM keen to engage with reactor vendors in future, with discussions on various waste forms, including TRISO fuels used in HTGCRs.
34. CoRWM will be publishing around August its second annual progress report on the siting process for the GDF.
35. CoRWM were asked if NWS pursue development of a near surface disposal facility whether it would pull resource away from the GDF. NDA will have to balance various demands to their resource from the nuclear industry i.e. hazard reduction at Sellafield, waste treatment, NSD, etc. with the GDF.. It should also be noted possible plans for near surface disposal are at a very early stage.
36. CoRWM and attendees discussed the issues around nuclear skills in the context of a question about planned redundancies at Hunterston B.

Agenda item 5. Presentation: “NEA’s Approach to Back-End Management for Advanced Reactors”

Speaker – Gabriele Grassi (Deputy Head of the Division of Radioactive Waste Management and Decommissioning at OECD Nuclear Energy Agency)

37. Gabriele Grassi (GG) delivered a presentation on the “NEA’s Approach to Back-End Management for Advanced Reactors”:
38. STKC commented on the adequacy of regulatory systems in place in the UK such that backend issues are considered in a timely manner and asked if similar arrangements were in place across other NEA member states. GG

reported that discussions have started on these issues in the NEA . WISARD are aware those aspects are fundamental but are more focused on technical projects. Way to include them in the programme of work would be to have some workshops with regulators once the projects have progressed more, to show results and receive feedback from them.

39. CoRWM were asked about their profile with community partnerships, with no websites mentioning CoRWM and not too many community partnership members attending the open plenary.
40. GG commented on preliminary confidence around the technical side of storage and transportation of waste from advanced reactors – with reservations from a number of assumptions due to the early nature of the work.
41. CoRWM commented on the value of having economists involved early in the projects, with costs being a large barrier for nuclear projects. The NEA have economists looking at costs, but not much on the backend. WISARD have been thinking about the economic aspect, with an idea on optimisation across the fuel cycle – transportation, storage as well as the backend of the fuel cycle.

Next Meeting: 12th September 2024, Anglesey