

NIRAB Meeting

Monday 4th April 2022, 10:00-16:00.

Hinton House, Birchwood Park Avenue, Risley Warrington, WA3 6GR; and virtual on MS Teams

Attendees

NIRAB Members: Francis Livens (Chair), Kirsty Armer, Alyson Armett, Gordon Bryan, Gregg Butler, Alun Ellis, Kirsty Gogan, Martin Goodfellow, Malcolm Joyce, Mike Lewis, Edoardo Patelli, Fiona Rayment, John Stairmand

NIRAB Members (via MS Teams): Maggie Brown

BEIS: (via MS Teams) Ian Johnson (SICE), Jacob Home (SICE/NIRO)

NIRO: Robert Alford, Clare Bayley (virtual), Jeff Holliday, Aiden Peakman, Lucy Platts (virtual), Greg Black, Nick Underwood, Greg Evans.

Observers: David Smeatham (ONR), Ian Streatfield (EA)

Apologies: Amanda Quadling, Professor Paul Monks (CSA), Si Dilks (SICE), Dan Mathers (NIRO), Lindsay Jamieson (Nuclear Directorate)

1. Chair Update, Professor Francis Livens

The achievement in getting NIRAB's early advice to BEIS out in timely order was noted.

The main focus for this meeting is to further develop the NIRAB work programme, which has been evolving through the working groups. We will need to consider how to integrate outcome from various discussion into the work programme, following discussion NIRO will update and evolve.

Minutes and notes from previous meeting on 03 March 2022 were agreed by the Board with some minor changes.

2. Update from BEIS

As an update BEIS gave feedback from the AMR RD&D Market Engagement exercise. Over 50 responses from range of companies were received, both nuclear, non-nuclear, UK and overseas. Lots of focus on fuel cycle – what BEIS will do to support that. Text has been adjusted in ITT to reflect feedback from market engagement. There was an option to have 1-2-1 engagement. Over 20 companies took that opportunity up. Most concerns were addressed following these sessions.



3. Approach to regulating AMRs – Discussion with ONR/EA

ONR and EA gave an overview of work they have been doing on the approach to regulating AMRs. An overview of why GDA was created, the different phases of licensing and timescales, and findings from an assessment of the options for regulating a HTGR was presented. NIRAB noted that the process of permissioning is flexible with regulators having a number of tools / processes available.

4. NIRAB work programme – overview

The purpose of the meeting was to make progress with the development of the NIRAB work programme, with identification of key topics and prioritisation. The work programme will need to have a consistent approach across working groups, identifying areas of cross-over. Key dates have been identified where advice might be timely. Note that longer term work programme will need to substantiate early advice.

5. Use Case Working Group work programme

An overview of the development of the Use Case work programme was given by the chair of the working group. A key consideration is the economic/market pull for applications and technologies, and therefore early stage analysis of market is critical. This will help to outline motivations for how the technology is to be used as it moves towards commercial operation. In addition, there is a need to identify potential customers for heat and its co-products (e.g. hydrogen). Industry could be approached with this early work for validation.

6. Technology Working Group work programme

An overview of the development of the Technology work programme was given by the working group chair. Part of the task for this working group is to look forward to future R&D programme, part is to look back with the review of the Nuclear Innovation Programme (NIP). For the NIP review, this can be done relatively easily. A key piece of advice is to continue with R&D funding, otherwise this could undo benefits of NIP. Looking forward, the same elements that were included in the NIP are important. We need to be careful not to only focus on HTGR and not lose capability elsewhere.

7. Delivery Working Group work programme

An overview of the development of the Delivery work programme was given by the working group chair. NIRAB should take learning from previous programmes, including seeking feedback from vendors who have been through the GDA process. Understanding timelines for delivery for critical path activities and where savings can be made should be a priority. Economic modelling / analysis is also important.



8. Work programme prioritisation and next steps

It is clear that there is a tight meshing of the working groups and there does need to be coordination between the groups. There is a reasonable amount of cross representation of members on different working groups, and NIRO will have oversight.

Priority of activities:

- Use Case: Market insight piece.
- Delivery: there are 4 priority areas – timelines; skills; facilities; siting.
- Technology: Review of NIP; prioritisation of topics for future R&D.

9. AOB

a. Next meetings

- Thursday 23rd May, 09:00 – 13:00 – virtual update meeting
- Monday 4th July, 10:00 – 16:00; in person / hybrid meeting
- Friday 23rd September, 10:00 – 16:00; in person / hybrid meeting.

b. Engage 1:

NIRO gave brief update on the Engage programme, covering international engagement, knowledge capture, and support for AMR demonstrator. The relevance of this for the NIRAB work programme was discussed.

c. R&D catalogue.

The first issue is available online (or hard copy for members, if required). There will be a second updated issue to follow.

