

Meeting Minutes

Distributed with Minutes

- Meeting Slides
- Environment Agency slides
- Output from last Engagement WG meeting
- Supply Chain & Capability Demonstration Template

1. Welcome and Updates

See slide deck for links:

- Updates provided on a shift in the US position on reprocessing
 - An opportunity to submit an application into the Open Call on the One Nuclear Platform (
 - Reflections on ATALANTE 2024
 - IAEA-MSR Chemistry Workshop writing up about to re-start, and the scope of the WISARD programme is being worked up
 - Update on joint work between UK NNL and US NNSA on safeguards for nuclear – to be presented at the SMR conference at the IAEA (25th October) and MSR workshop at ORNL early next month.
 - Look forward to forthcoming events: CREAM MSR (NEA programme of work), MS Workshop and a GIF presentation y Jiri Krepel in January.
 - Work at NNL:
 - a. Work on a glossary that supports safeguarding work (above) and IAEA MSR Chemistry Workshop (also above)
 - b. A model has been produced and presented at Pu Futures describing the use of MSR's in a nuclear fuel cycle. While the specific activity demonstrated the ability of MSFR to reduces the quantity of actinides (including Pu) in the fuel cycle, the most important aspect is the models (reactor model → Serpent → ORION) that have been built which can be modified to suit a wide range of applications.
 - c. MJE has written a position paper on molten salt to influence policy makers but is still to identify a publication route. University of Manchester Dalton Institute Policy team are reviewing it.
- ACTION MJE:** to send position paper to EG-O so he can review the fusion section

- d. NNL now has limited funding to support strategic work in molten salt technologies for the remainder of FY24-25. Unfortunately, this is going to impede progress on the MSR Re-assessment in response to the 2021 NIRO AMR assessment.

Updates from the floor

Paul Bingham asked about the AFCP funding successor (maybe AFCP type 2).

AFCP has continued but the scope has been reduced to focus only on the fuel element of the programme – specifically coated particle fuel.

There is currently nothing formally on the horizon to MJE's knowledge, that might include molten salt technologies. However, Mike and others at NNL are working hard to make the case to Government for funding of further work into separation and recycle technologies – multiple routes are being followed.

2. Working Group Update

Engagement

MSTP now has a website: www.moltensalt.org.uk Currently the website re-directs to the existing MSTP site hosted on the NNL website while we build our content. At the last meeting a scope of content was generated.

ACTION MD: Re-distribute the scope of the website to everyone again (attached with these minutes, can also be found [here](#))

The use of short videos explaining sections of MSR technologies from a range of sources – universities, developers, national labs would be a great way to generate content and get over a lot of information quickly in an appealing way.

ACTION MD: Create a list of topics for short videos

ACTION AII: Please can members

- (i) provide feedback on Website content
- (ii) Suggest website content they can contribute – especially illustrations/photographs etc.
- (iii) volunteer short videos they could produce
- (iv) volunteer an enthusiastic web lead who can either put to use existing skills or learn new ones, in either case it's a great way to learn more about molten salts and grow their network.

The website could feature up-coming funding opportunities and enable partnerships to be established for proposals. It could also be used as a mechanism for providing a letter of support – currently letters of support would be generated by Mike as Chairman but this isn't necessarily representative of the community.

ACTION MJE: Workout the process for providing support to proposals from MSTP.

MD is writing a book for the IET on molten salt technologies, it is designed to provide an easy guide to the technology.

ACTION All: Please get in contact with MD if you are interested in contributing to IET book.

Waste and Recycle

There has been little progress in recent months but an invite to a workshop (an outstanding action) will be sent out in mid-November. Notes from the Manchester meeting can be found here:

[24-06 MSTP RAW-WG - Minutes - Manchester.pdf](#)

Supply Chain and Capability Demonstration

There has been a poor response so far from the form/template sent out, SharePoint link: [MSTP supply chain template.docx](#). The resulting catalogue will be provide an in depth understanding of the capability, the gaps and is likely to go on the new website.

ACTION All: Complete the template profiles from SC&D WG

ACTION CF/NM: Look at further supply infrastructure and how to capture those.

Modelling

There has been little progress as a group; however, there are ongoing efforts to increase the modeling community and activity in the UK. Marat has put in 2 EPSRC proposals, one of which has been successful. The modelling proposed will provide information to support safety cases and reference points.

ACTION MM (lead): Establish reference source to work from, that will provide a start point for modelling on which everyone can agree.

Technical Challenges

Unfortunately, Scott Donachie is unable to continue in his role as co-lead of this working group. Helena and Mike expressed their gratitude for the work and enthusiasm he's delivered to date.

The working group has been gathering data and summarizing available technologies and critical properties for a web database. This has been on the free Google website platform so far but it would be preferable to transition it to the new website – the consensus was this shouldn't be too difficult.

ACTION: All. (Repeat of earlier action) volunteer an enthusiastic web lead who can either put to use existing skills or learn new ones, in either case it's a great way to learn more about molten salts and grow their network

3. Environment Agency Presentation (Emma Atherton)

Emma presented on Environment Agency role in regulation and their approach to new build nuclear advice and assessment. This included describing the new early engagement process that Newcleo and Moltex Energy have both begun.

ACTION: All: Emma to check if the PowerPoint will be available and then sent through to Mike to share out

ACTION: EA: To relay the conversation about the need to future proof the process back to the strategy team

4. AOB

Paul Bingham raised the fact that the Group at Sheffield Hallam has an application to carry out experiments during an LKE melt on the ISIS beamline.

ACTION: All. If anyone has an interest in the LKE melt work at ISIS or related experiments on the beamline please get in touch with Paul Bingham

5. Meeting Close

Action Summary

No.	Action Items	Owner(s)	Deadline	Status
1	Send position paper to Eduardo Garciadego-Ortega so he can review the fusion section	Mike Edmondson	31/10/24	Complete
2	Re-distribute the scope of the website to everyone	Mike Drury	31/10/24	Complete
3	Create a list of topics for short videos	Mike Drury	31/10/24	New
4	Please can members (i) provide feedback on Website content (ii) Suggest website content they can contribute – especially illustrations/photographs etc. (iii) volunteer short videos they could produce (iv) volunteer an enthusiastic web lead who can either put to use existing skills or learn new ones, in either case it's a great way to learn more about molten salts and grow their network.	All	31/10/24	New
5	Workout the process for providing support to proposals from MSTP	Mike Edmondson	31/12/24	New
6	Please get in contact with Mike Drury if you are interested in contributing to IET book	Mike Drury	31/10/24	New
7	Complete the template profiles from SC&D WG	All	31/12/24	Reminder
8	Look at further supply infrastructure and how to capture those	Chloe Fletcher and Neil Murray	31/12/24	Self declared – repeat from supply chain working group
9	Establish reference source to work from, that will provide a start point for modelling on which everyone can agree	Marat Margulis	31/12/24	New
10	Emma to check if the PowerPoint will be available and then sent through to Mike to share out	Emma Atherton	20/10/24	Complete
11	To relay the conversation about the need to future proof the process back to the strategy team	Emma Atherton	31/10/24	New
12	If anyone has an interest in the LKE melt work at ISIS or related experiments on the beamline please get in touch with Paul Bingham	All	31/10/24	New

Carried over actions from previous meetings

No.	Action Items	Owner(s)	Deadline	Status
	Previous actions closed			

Agenda

Meeting Title:	Molten Salt Technology Platform		MS Teams Meeting
Date:	15 th October 2024	Duration:	2 hours
Item		Lead	Timings
1. Welcome and Updates <i>Summary of Minutes</i> <i>Topical News</i> <i>Grants/conferences/activities</i> <i>Other</i>		MJE	13:00 – 13:30
2. Working Groups Update <i>Modelling</i> <i>Technical Challenges</i> <i>Supply Chain</i> <i>Engagement</i> <i>Recycle and Waste</i>		WG Leads	13:30 – 14:10
3. Talks <i>a. Environment Agency Perspective</i>		EA	14:10 – 14:40
4. Recap any Actions and Next Meeting		MJE	
5. Meeting close		All	15:00
*If you would like to present an update, please contact us to reserve a slot			

Attendees

Attendee	Institution
1 Emma Atherton	Environment Agency
2 Ed Pheil	Exodys Energy
3 Michael Drury	Lucid Catalyst
4 Adam Qaisar	Lucideon
5 Andrew Steer	MoltexFLEX
6 Ciara Fox	MoltexFLEX
7 Luke Cooper	MoltexFLEX
8 Simon Boddington	MoltexFLEX
9 Aline Dressler	NAAREA
10 Alessandro Mirabella	National Nuclear Laboratory
11 Lucas Woodbridge	National Nuclear Laboratory
12 Michael Edmondson	National Nuclear Laboratory
13 Robert Mossop	National Nuclear Laboratory
14 Ruth Carvajal-Ortiz	National Nuclear Laboratory
15 Dominic Rhodes	Newcleo
16 Paige Halil	Newcleo (Nucleargraduate scheme)
17 Matthew Bingham	NIRO
18 Luke Townsend	NWS
19 Isabella Morlaes	Orano
20 Eduardo Cuoc	Rolls Royce
21 Menno Tegenbos	Rolls Royce
22 Greg Cartland-Glover	Science and Technology Facilities Council
23 Alex Scrimshire	Sheffield Hallam University
24 Maria Ivanova	Terrestrial Energy
25 Lolita Hilaire	Thorizon
26 Neil Murray	Trillium
27 Eduardo Garciadego-Ortega	UKAEA
28 Cillion Cockrell	University of Bangor
29 Marat Margulis	University of Bangor
30 Helena Navarro	University of Birmingham
31 Justin Elliot	University of Edinburgh
32 Bruno Merk	University of Liverpool
33 Lakshay Jain	University of Liverpool
34 Paul Bingham	University of Sheffield