### MOLTEN SALT REACTOR CAMPAIGN REVIEW MEETING ALL TIMES ARE PACIFIC DAYLIGHT TIME (PDT)

APRIL 16-18, 2024 TEAMS CALL



|          |          | TUESDAY, APRIL 16, 2024  |  |
|----------|----------|--|--|
| 8:00 AM  | 8:05 AM  | Opening Remarks  | Janelle Eddins/Michael Stoddard/DOE-NE                                 |
| 8:05 AM  | 8:15 AM  | Overview of the MSR Campaign   | Patricia Paviet/PNNL   |
|          | Т        | HERMOPHYSICAL AND THERMOCHEMICAL PROPERTIE   | S OF SALT  |
| 8:15 AM  | 8:45 AM  | Thermochemical and Thermophysical Property Development for the Molten Salt Databases at ANL  | Melissa Rose/ANL   |
| 8:45 AM  | 9:15 AM  | Molten Salts Thermophysical Properties  Determination and Salt Irradiation Experiment at INL | Toni Karlson/Abdalla Abou<br>Jaoude/INL                                |
| 9:15 AM  | 9:45 AM  | Thermochemical and Thermophysical Property Development for the Molten Salt Databases at LANL | Marisa Monreal/LANL  |
| 9:45 AM  | 10:30 AM | AIMD and Measurements of Thermophysical Properties for the Molten Salt Database at ORNL      | Tony Birri/Vanda Glezakou/<br>ORNL and AIMD support                    |
| 10:30AM  | 10:45 AM | BREAK  |  |
| 10:45AM  | 11:30 AM | Experimental and computational study of MgCl <sub>2</sub> -KCl mixtures                      | Kyle Makovsky/ Manh Thuong<br>Nguyen/ PNNL                             |
| 11:30AM  | 12:00 PM | Generation of Molten Salt Thermochemical Properties at USC                                   | Ted Besmann/UCS  |
| 12:00 PM | 12:45 PM | Update of the Databases MSTDB-TP AND MSTDB-TC  | Ted Besmann/UCS and Tony Birri/ORNL                                    |
|          |          | MODELING and SIMULATION  |  |
| 12:45 PM | 01:15 PM | MSR species tracking   | Mauricio Tano Retamales/INL  |
| 01:15 PM | 1:45 PM  | Mechanistic source term development  | Christian Matthew/Brandon De<br>Luna/David Luxat/Lucas<br>Albright/SNL |
| 1:45 PM  |          | Adjourn  |  |

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#### APRIL 16-18, 2024 TEAMS CALL

|          |          | WEDNESDAY, APRIL 17, 2024  |  |
|----------|----------|--|--|
| 8:00 AM  | 8:05 AM  | Welcome Back   | Janelle, Michael & Patricia                          |
|          |          | RADIONUCLIDE RELEASE   |  |
| 8:05 AM  | 8:20AM   | Overview of the technology development and demonstration   | Joanna McFarlane/ORNL                                |
| 8:20 AM  | 8:45 AM  | Salt Loop and Capability for Testing Sensors and Off Gas Components                                  | Kevin Robb/ORNL                                      |
| 8:45 AM  | 9:15 AM  | Distributed Salt Chemistry Monitoring and Control  | Nathaniel Hoyt/ANL                                   |
| 9:15 AM  | 9:40 AM  | On-line Monitoring for MSR Off-Gas Treatment:<br>Molecular approach                                  | Heather Felmy/<br>Amanda Lines and Sam<br>Bryan/PNNL |
| 9:40AM   | 10:05AM  | Laser Induced Brekadown Spectroscopy (LIBS) for elemer monitoring of MSR off-gas streams             | Hunter Andrews/ORNL                                  |
| 10:05 AM | 10:25 AM | Update on Radiation Exposure Measurements of Metal Organic Framework at PNNL                         | Praveen Thallapally/Mark Murphy/PNNL                 |
| 10:25 AM | 10:50 AM | Experiment and Modeling Liquid Salt Test Loop LSTL   | Kyoung Lee and Bob Salko /ORNL                       |
| 10:50 AM | 11:00 AM | BREAK  |  |
| 11:00AM  | 11:30PM  | Tritium Transport  | Thomas Fuerst/INL                                    |
| 11:30 AM | 12:00 PM | Salt Spill Testing   | Sara Thomas/ANL                                      |
|          |          | MATERIALS  |  |
| 12:00 PM | 12:30 PM | Salt and Materials Interaction at ORNL   | Bruce Pint/ORNL                                      |
| 12:30 PM | 1:00 PM  | Development of surveillance test articles for materials<br>Degradation management in MSR environment | Michael McMurtrey/INL                                |
| 1:00 PM  | 1:30 PM  | Graphite and Salt Interaction  | Nidia Gallego/ORNL                                   |
| 1:30 PM  |          | Adjourn  |  |

## MOLTEN SALT REACTOR CAMPAIGN REVIEW MEETING ALL TIMES ARE PACIFIC DAYLIGHT TIME (PDT)

#### APRIL 16-18, 2024 TEAMS CALL

|          |          | THURSDAY, APRIL 18, 2023   |  |
|----------|----------|--|--|
| 8:00 AM  | 8:05 AM  | Welcome Back   | Janelle, Michael & Patricia                        |
|          |          | MSR RADIOISOTOPES  |  |
| 8:05 AM  | 8:30 AM  | Chlorine Isotopes Separation for Advanced Fast Spectrum MSRs   | Bruce McNamara and Zachary Huber/PNNL              |
| 8:30 AM  | 8:55 AM  | Beryllium carbide as moderator for MSRs  | Anne Campbell/ORNL                                 |
| 8:55 AM  | 9:20 AM  | Laser Induced Breakdown Spectroscopy – Isotope Ratio   | Hunter Andrews/ORNL                                |
| 9:20 AM  | 9:45 AM  | MSR chlorine radioisotopes separation  | Danny Bottenus/PNNL                                |
|          |          | SAFETY/INTERNATIONAL/REGULATORY  |  |
| 9:45 AM  | 10:15 AM | MSR Safety and International Involvement   | David Holcomb/INL                                  |
| 10:15 AM | 10:40 AM | Regulatory Framework Modernization support for MSR deployment  | Christopher Chwasz/INL                             |
| 10:40 AM | 11:00 AM | BREAK  |  |
|          |          | UNIVERSITIES PRESENTATION  |  |
| 11:00 AM | 11:30 AM | IRP- Molten Salt Reactor Test Bed with Neutron Irradiation   | Charles Forsberg/MIT                               |
| 11:30 AM | 12:00PM  | IRP- Bridging the gap between experiments and modeling to improve the design of molten salt reactors   | Max Fratoni/UC Berkeley                            |
| 12:00 PM | 12:30 PM | NEUP Project 19-16954: Innovative In-situ Analysis and Quantification of Corrosion and Erosion of 316 Stainless steel in Molten Chloride Salt Flow Loops | Adrien Couet/Uni. Wisconsin-<br>Madison            |
|          |          | MISCELLANEOUS  |  |
| 12:30 PM | 1:00 PM  | Invited Presentation – Molten salt in extreme environment Energy Frontier Research Center  | Jim Wishart/BNL                                    |
| 1:00 PM  | 01:30PM  | Invited Presentation -SCIDAC funded research on materials and modeling under MSR conditions  | Laurent Capolungo/LANL                             |
| 01:30 PM | 01:45 PM | Conclusions  | Janelle Eddins/Michael<br>Stoddard/Patricia Paviet |
| 01:45 PM |          | Adjourn  |  |