



2018 Topical Meeting • Program

Sunday, September 23
 Registration 4:30 – 6:00 PM, Mezzanine
 Welcome Reception 6:00 – 8:00 PM, Mezzanine and Smoky B&C

| # | Session Title | Time | Topic | Presenter |
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| Monday, September 24 Meeting Room: Cherokee Ballroom | | | | |
| 1 | Opening Plenary Session: Supporting a Reliable, Non-HEU Mo-99 Supply MC: Jeff Chamberlin | 9:00 AM | Oak Ridge Welcome | James Peery (ORNL) |
| | | | DOE/NNSA Welcome | Pete Hanlon (DOE/NNSA) |
| | | | Lessons Learned: Path to Approval | James Harvey (NorthStar) |
| | | | Lessons Learned During Conversion From HEU to LEU | Roy Brown (Curium) |
| 10:00 AM Coffee Break and Refreshments, Mezzanine | | | | |
| 2 | U.S. Government Support and Oversight Session Chair: Roy Brown | 10:30 AM | Establishing Reliable, Non-HEU Supplies of Mo-99 Production in the United States | Peter Karcz (DOE/NNSA) |
| | | | Update on Centers for Medicare and Medicaid Services Reimbursement Policy | Ing-Jye Cheng (CMS) <i>(by phone)</i> |
| | | | Licensing and Oversight Enhancements and Preparations for Medical Radioisotope Facility Application Reviews and Construction Inspection | Steven Lynch (NRC) |
| | | | FDA Regulatory Update on Mo-99 Produced by LEU and Novel Technologies | Danae Christodolou (FDA) |
| 12:00 PM Hosted Buffet Lunch, Cherokee Ballroom | | | | |
| 3 | Production Projects and Technologies I Session Chair: John Witkowski | 1:30 PM | Update on Domestic Production of Mo-99 via Neutron Capture | James Harvey (NorthStar) |
| | | | Next Generation Mo-99 Production: SHINE Update | Katrina Pitas (SHINE) |
| | | | Commercial-Scale LEU Mo-99 Production Facility Utilizing Existing Technologies | Carmen Bigles (Coqui) |
| | | | Northwest Medical Isotopes, LLC Project Overview and Status | Carolyn Haass (NWMI) |
| | | | BWXT Breakthrough Medical Isotope Technology | Tom Burnett (BWXT) |
| 3:00 PM Coffee Break and Refreshments, Mezzanine | | | | |
| 4 | Panel: U.S. Laboratory Contributions to Mo-99 Production Technology Session Chair: Thad Heltemes | 3:30 PM | Argonne Support for Domestic and International Mo-99 Programs | Amanda Youker (ANL) |
| | | | PNNL Mo-99 Support | Charles Doll (PNNL) |
| | | | Recent LANL Contributions to Mo-99 Production Technology | Joetta Goda (LANL) |
| | | | Savannah River National Laboratory: Science and Technology Innovations for National Challenges | Anita Poore (SRNL) |
| | | | Y-12 National Security Complex Activities in Support of Mo-99: FY-18 Update | Lloyd Jollay (Y-12) |
| | | | Summary of ORNL Support for Mo-99 Production | Chris Bryan (ORNL) |
| 5:00 PM Adjourn | | | | |

Tuesday, September 25
Meeting Room: Cherokee Ballroom

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| 5 | Minimizing HEU Session Chair: Dr. James Welsh | 8:30 AM | Update on OECD's High Level Group on Medical Radioisotopes | Jeff Chamberlin (DOE/NNSA) |
| | | | 2018 Medical Isotope Supply Review: Mo-99/Tc-99m Market Demand and Production Capacity Projection 2018-2023 | Kevin Charlton (OECD) |
| | | | International Atomic Energy Agency Support for Non-HEU Based Mo-99 Production | Thomas Hanlon (IAEA) |
| | | | Status and Challenges of the IRE LEU Conversion Program | Valery Host (IRE) |
| 10:00 AM Coffee Break and Refreshments, Mezzanine | | | | |
| 6 | Supply Chain Perspectives Session Chair: Valery Host | 10:30 AM | Cardinal Health Nuclear & Precision Health Solutions Perspectives on the Reliable Supply of Molybdenum-99 | David Pellicciarini (Cardinal Health) |
| | | | Lantheus LEU Technelite® Generator Update | Ira Goldman (LMI) |
| | | | The Downstream Effect of Mo-99 Supply Chain Issues | John Witkowski (UPPI) |
| 11:30 PM Lunch Break | | | | |
| 7 | Production Projects and Technologies II Session Chair: Mary Soule | 1:00 PM | Prototype Testing of a Mo-99 /Tc-99m Generator Using (n,γ) Mo-99 | Lou Centofanti (Perma-Fix) |
| | | | Niowave's Domestic Production of Mo-99 and Other Fission Fragments from LEU without a Nuclear Reactor | Terry Grimm (Niowave) |
| | | | Updates on Implementation of Cyclotron-Produced Tc-99m | Joel Kumlin (ARTMS/ITAPS) |
| 15 Minute Break | | | | |
| 8 | Managing the Back End of Mo-99 Production Session Chair: Brett Cox | 2:15 PM | ANSTO Synroc Wasteforms and Processing Technology for the Immobilization of Mo-99 Production Wastes | Rohan Holmes (ANSTO) |
| | | | Mo-99 Storage at COVRA | Roy Brown (on behalf of COVRA) |
| | | | Fabrication of Molybdenum Target Materials Employing "Recycled" Powders | Richard Lowden (ORNL) |
| 3:30 PM Poster Session, Coffee Break and Refreshments, Smoky B&C | | | | |
| 9 | Poster Presentations and Discussion Session Chair: John Holland | 3:30 PM | The Formation of Mo-Polyoxometalates during Large-Scale Molybdenum Target Recycling | Alex Brown (ANL) |
| | | | 3 MeV Van de Graaff Irradiations at Argonne's LEAF Facility in Support of Mo-99 Production | Kevin Quigley (ANL) |
| | | | Fabrication of Uranium Oxide Pellets for Efficient Radioisotope Production | Nathan Johnson (Niowave) |
| | | | Progress Toward an LEU Fuel Cycle for Domestic Radioisotope Production from Fission Fragments | Kristin Shannon (Niowave) |
| | | | Mini-AMORE Gas Generation Data during Phase II Commissioning Experiments | Thomas Brossard (ANL) |
| | | | Medical Isotope Production in Liquid-Fluoride Reactors | Kirk Sorenson (Flibe) |
| | | | STAX Data Sharing Project | Charles Doll (PNNL) |
| | | | General Atomics Selective Gas Extraction Method for Mo-99 Recovery From LEU Targets | Robert Buckingham (General Atomics) |

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| | | Evaluating All-Metal Diaphragm Valves for Use in Tritium Environments | Anita Poore (SRNL) |
| | | In-Situ Production of Radionuclide Molybdenum-99 (Mo-99) without Uranium | Charles Gentile (Princeton Plasma Physics Laboratory) |
| | | Experimental Study of the Shrinking UAlx Core and Digestion Kinetics in Alkaline Solution | Andrew Cea (SCK•CEN) |
| | | Staged Z-Pinch as High Flux Neutron Source for Mo-99 Production | Hafiz Rahman (MIFTEC) |
| | | Optimizing Extraction Processes and Fuel Fabrication for Mo-99 Production | Kaara Patton (CNS Y-12) |
| | | Test of the 90-degree Achromatic Bend Prototype for NorthStar's Mo-99 Production Facility | Roman Gromov (ANL) |
| | | Hot Test Production of Fission Mo-99 at HANARO | Seung-Kon Lee (KAERI) |
| | | Post Irradiation Examination on LEU Dispersion Target Developed by KAERI | Yong Jin Jeong (KAERI) |

5:00 PM Adjourn

Wednesday, September 26
Meeting Room: Cherokee Ballroom

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| 10 | State of Technology Development I Session Chair: Dr. Maretha Fourie | 8:30 AM | Optimized Flowsheet for the Dissolution of Uranium Metal | Tracy Rudisill (SRNL) |
| | | | LANL Engineering and Design Support for an Accelerator Facility to Produce Mo-99 from Mo-100 | Keith Woloshun (LANL) |
| | | | FY18 Update on Large-Scale Dissolution and Recycle Processes for Neutron Capture and Accelerator Driven Production of Mo-99 | Peter Tkac (ANL) |
| | | | Xenon Abatement Studies | Paul Humble (PNNL) |

10:00 AM Coffee Break and Refreshments, Mezzanine

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| 11 | State of Technology Development II Session Chair: Katrina Pitas | 10:30 AM | Irradiation Activities at ORNL for Supporting R&D on Mo-99 Production | Nesrin Cetiner (ORNL) |
| | | | Accelerator Based Production of Mo-99: Photonuclear Approach | Sergey Chemerisov (ANL) |
| | | | A Solution Vessel Design Study Using Multiphysics Calculation | Seung Jun Kim (LANL) |
| | | | Zircaloy-4 for Low-Temperature Use with Hydrogen and Neutron Exposure | Lauren Garrison (ORNL) |
| | | | Argonne Support for Fission Mo-99 Production | Amanda Youker (ANL) |

12:00 PM Closing Remarks
MC: Jeff Chamberlin

Thursday, September 27

Optional Technical Tour of Oak Ridge National Laboratory Facilities
(Bus transportation provided from and to hotel; one bus will go directly to airport from ORNL)
8:30 AM – 1:00 PM