# PNNL at WM Symposia 2024

# **Track 1: Crosscutting Policies and Programs**

#### Stuart Arm | Session 57 | Tuesday AM

Panel: Integrating Sustainability and Circular Economy Principles to Advance Nuclear Energy

#### Joel Duling | Session 89 | Tuesday PM

Panel: Energy Facility Contractors Group (EFCOG)

# Brianna Yi | Session 96 | Tuesday PM

Panel: DOE Western Site-Specific Procurement and Contracting Opportunities

#### Jud Virden | Session 166 | Wednesday PM

Panel: The Role of National Laboratories in Delivering Value Through National Missions

# Miriam Juckett | Session 221 | Thursday PM

Panel: International Perspectives: Achieving Support and Consent-Based Programs for Waste Repositories – One Year Later

# Track 2: High-Level Radioactive Wastes, Spent Nuclear Fuel/Used Nuclear Fuel

# **Justin Clarity** | Session 32 | Monday PM

Development of a Web-based Spent Nuclear Fuel Analysis and Data Management Interface

### Veronica Wilson | Session 32 | Monday PM

Calculation Method for Dose Beyond the Controlled Area of a Large Spent Nuclear Fuel Dry Storage Array Using SCALE

#### Kayte Denslow | Session 39 | Monday PM

Next-Generation Machine Learning-Assisted Robotic Ultrasonic Inspection Technology for Hanford Primary Tank Floor Plates

#### Ben Jensen | Session 39 | Monday PM

Finite Element Modeling of the Hanford Lead Canister Coupon Replacement Weld Residual Stress

# Dina Carpenter-Graffy | Session 40 | Monday PM

**Poster:** STANDARDS 5.0 Integrated Thermal Analysis Pipeline Development

#### Peter Stefanovic | Session 40 | Monday PM

**Poster:** Enhancing GC-859 Data Collection Efficiency and Accuracy

#### Stuart Arm | Session 47 | Monday PM

Evaluation of Technologies Applicable to Fragmenting the Graphite Moderator of TRISO Spent Nuclear Fuel

# Jesse Lang | Session 67 | Tuesday AM

Laboratory-Scale Melter Systems for Simulated and Real Tank Waste

# Jarrod Allred | Session 70 | Tuesday AM

Filtration Results of Hanford Tank 241-AP-105 and 241-SY-101 Supernatant at 16°C

# Justin Clarity | Session 71 | Tuesday AM

Reactivity Analysis of Dual-Purpose Canisters for Post-Closure Criticality

#### Emily Campbell | Session 108 | Tuesday PM

Strontium Batch Contact Results with Crystalline Silicotitanate in Hanford Tank Waste and Hanford Waste Simulants

#### Carolyn Pearce | Session 108 | Tuesday PM

Aluminum Solubility, Speciation, and Reactivity Under Low Water Conditions in Radioactive Tank Waste at Hanford

# Amy Westesen | Session 108 | Tuesday PM

Phosphate and Fluoride Dissolution Processing for HLW Sludges

# Stuart Arm | Session 168 | Wednesday PM

Options for Managing Spent TRi-structural ISOtropic Nuclear

# Track 3: Low-Level, Intermediate Level, Mixed Waste, NORM, and TENORM

# Matt Asmussen | Session 36 | Monday PM

RCRA Metal Behavior in Grout Waste Forms

# Allie Fujii Yamagata | Session 60 | Tuesday AM

The Long-Term Saturated Leaching of Cementitious Waste Forms and Applicability of Diffusion Models

#### Matt Asmussen | Session 101 | Tuesday PM

Iodine and Technetium Removal from Hanford Low Activity Waste

#### Matt Asmussen | Session 164 | Wednesday PM

Panel: Perspectives on Partnerships and Development in Cementitious Material: A DOE Community of Practice

# **Track 5: Packaging and Transportation**

#### David Richmond | Session 79 | Tuesday AM

Fire Modeling of Spent Nuclear Fuel Transportation Casks for Stakeholder Engagement

### Shannon Thompson | Session 79 | Tuesday AM

Developing Stakeholder Engagement Tools for Spent Nuclear Fuel Transportation in the United States

#### Laura Hay | Session 97 | Tuesday PM

Development of a Functions and Requirements Document for a SNF Transportation Package Performance Demonstration

#### Veronica Wilson | Session 97 | Tuesday PM

Calculating Certificate of Compliance Transportability Dates for As-Loaded Canisters Using STANDARDS Spent Nuclear Fuel Data and Analysis Tool

#### Antonio Rigato | Session 110 | Tuesday PM

Describing an Essentially Unyielding Surface as Prescribed by 10 CFR Part 71 Transportation Regulations

# Peter Stefanovic | Session 141 | Wednesday AM

**Poster:** Dose Rate from an Array of Transport Casks Using SCALE

# **Brett Simpson | Session 146 | Wednesday AM**

Sample Planning for Transportation Accident Environmental Characterization Using RISKIND and VSP

# Harold Adkins | Session 160 | Wednesday PM

Panel: Transport of MicroReactors

# Steve Maheras | Session 176 | Wednesday PM

Panel: Transport of Unirradiated and Irradiated Advanced Reactor Fuels

# Micah Taylor | Session 183 | Wednesday PM

Using GIS and 360-Degree Video Surveys to Identify Microreactor Transport Risk Locations Along a Hypothetical Public Highway

#### Miriam Juckett | Session 204 | Thursday AM

Three Mile Island Nuclear Station Site Infrastructure Evaluation

#### Steve Maheras | Session 204 | Thursday AM

Indian Point Nuclear Power Plant Site Evaluation

#### Steve Maheras | Session 204 | Thursday AM

Palisades Nuclear Power Plant Site Evaluation

# **Track 7: Environmental Remediation**

#### Amanda Lawter | Session 29 | Monday PM

Subsurface Sequestration of Technetium and Uranium Using Tin(II) Apatite

# Hilary Emerson | Session 37 | Monday PM

Reduction and Sequestration Technologies Utilizing Phosphate for Hanford Site Saturated Zones

# Tim C. Johnson | Session 37 | Monday PM

4D Electrical Resistivity Tomography Monitoring of Vadose Zone Soil Flushing at the Hanford 100-K Area Reactor Facility

### Judy Robinson | Session 37 | Monday PM

Monitoring Subsurface Plumes in the Vadose Zone at the Hanford Site using Time-lapse Surface Electrical Resistivity

## Rajiv Prasad | Session 45 | Monday PM

Assessing Effects of Climate Change on Legacy Waste at Enewetak Atoll

## Chris Johnson | Session 46 | Monday PM

TRAC – Capturing Cleanup Progress at Environmental Management Sites

### Jim Szecsody | Session 136 | Wednesday AM

Reactive Gas Technologies for Remediation in the Hanford Vadose Zone

# Marcus Perry | Session 140 | Wednesday AM

**Poster:** Python Toolbox for Managing Tracking Restoration and Closure GIS Data

#### Inci Demirkanli | Session 172 | Wednesday PM

Soil Water Balance Model Selection and Benchmark Testing for Evaluating Uranium Mill Tailings Disposal Cell Evapotranspiration Covers

### Tim C. Johnson | Session 225 | Thursday PM

Long-Term Performance Monitoring of the SRNL F-Area Basin 3 Cap Using Autonomous 4D Electrical Resistivity Difference Tomography

# Track 8: Communications, Stakeholder and Indigenous Engagement and Workforce Management

### Kaushik Banerjee | Session 98 | Tuesday PM

CURIE: A Next-Generation Nuclear Waste Management Knowledge Repository and Collaboration Platform

#### Ennea Fairchild-Grant | Session 202 | Thursday AM

Community-Scale Stakeholder Interviews in Support of Consent-Based Siting: In-Progress Results

# Track 9: Special Topics and Multi-Track Cross Cutting Technology Topics

#### Heather Sabella | Session 74 | Tuesday AM

Progressive Noise Reduction in an IoT System

#### Matt Asmussen | Session 226 | Thursday PM

Field-Scale Lysimeter Studies of Waste Forms at the Hanford Site

# Track 10: Leveraging Education and Workforce Development Programs in the Future

# Matt Asmussen | Session 19 | Monday PM

Panel: The Evolution of STEM: A Generational Perspective

#### **Track 12: Posters**

#### Session 174 | Wednesday PM

**Matt Asmussen** | **Poster:** Testing Update for Maintenance of the Long-Term Performance Assessment of the Integrated Disposal Facility

**Luke El Khoury** | **Poster:** Demonstration Testing of Gas-Phase Iodine-129 and Mercury Sorbents for the Low-Activity Waste Vitrification Facility Off-gas System at Hanford

**Simone Nicholson** | **Poster:** Improving Energy-Technology Innovation Opportunities for HBCU Students Through Critical Curriculum Integration

**Suraj Venkat Pochampally** | **Poster:** Metal-Organic Framework-based Walnut Biochar Composites for Adsorption of Lead and Chromium from Aqueous Environments