

# **ANS**® Winter Meeting & Expo 2022

## International High Level Radioactive Waste Management Conference

Sylvia Saltzstein *General Chair*



Sandia National Laboratories is a multission laboratory managed and operated by National Technology & Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

CLICK TO ADD SAND XXXX-XXXX

P



Thank you for participating!



---

## Organizers

General Chair	Sylvia Saltzstein (Sandia National Laboratories)
Program Chair:	Brady Hanson (Pacific Northwest National Laboratory)
Program Cochair:	Emily Stein (Sandia National Laboratories)
	Robert Howard (Pacific Northwest National Laboratory)

# Thank you to the Organizing Teams!

## Technical Sessions

Chair: Brady Hanson, Emily Stein, Rob Howard

## International Collaborations:

Chairs: Hatice Akkurt & Jens Birkholzer

## Plenary:

Chair: John Kessler

## Short Courses

Chair: Scott Sanborn

## Publicity

Chair: Rose Montgomery and Hatice Akkurt

## Awards

Chair: Sven Bader

## Banquets/Social:

Chair: Christina Leggett

## Student and University Involvement:

Chair: Stylianos Chatzidakis

Join us for IHLRWM Conference 2025!

# Thank you to the authors!

Breakdown by topic:

Site Selection/Characterization	14
Storage and Transportation	62
Repository Systems	56
Advanced Reactor Fuel Cycles	11
Security/Safeguards	4
Emerging Waste Issues	6
Nuclear Energy University Programs	2

202 Abstracts  
155 papers presented  
348 paid attendees (109 at 2019 IHLRWM Conference)

# Thank you to the paper reviewers!

R.A. Borelli  
Yifeng Wang  
David Hambley  
Christoph Gastl  
Efstratios (Stratis) Vomvoris  
John Kessler  
Rob Howard  
Brady Hanson  
Daniel Bullen  
Matthias Jaunich  
Emily Stein  
Steven Ross  
Ray Clark  
Ed Lahoda

Chris Camphouse  
Shulan Xu  
Patricia Paviet  
Stephen T. Lam  
Phillip Stauffer  
Tara LaForce  
Harish Reddy Gadey  
Kris Kuhlman  
Milos Ivo Atz  
Steve Skutnik  
Rose Montgomery  
Daniel Ogg  
Christina Leggett  
Kaushik Banerjee

Yoon Chang  
Steven Curtis  
Michael Lico  
Scott Sanborn  
Robby Joseph  
Kurt Harris  
Hatice Akkurt  
Aman Gupta  
Michelle Bourret  
Ricardo Torres  
Michael Smith  
Sven Bader

# Thank you for the Short Courses!

## Very popular!

- All are full (45 each) and the waiting lists are full (10 each)

## Sunday

Spent Nuclear Fuel and Related Systems Analyses Using UNF-ST&DARDS

- [Kaushik Banerjee](#)

Geologic Disposal Safety Assessment (GDSA) Framework

- [Laura Swiler](#)

Knowledge Management for a Nuclear Waste Management (NWM) Organization

- [Janette Meacham](#)

## Wednesday

START (Stakeholder Tool for Assessing Radioactive Transportation)

- [Mark Abkowitz](#)

# A Lot Has Changed Since the IHLRWM Conference 2019!

- Exciting Progress in Finland, Sweden, Switzerland, Canada, and More!
- 80+ New Reactor Designs
- Accident Tolerant Fuel
- HALEU Activity with Transportation Opportunities
- Consolidated Storage Effort at the U.S. Department of Energy
- New Community Outreach
- Social Science Initiatives

**We have talks on each of these topics!**

# General Conference Set Up

We have three rooms:

- Mesquite
  - Generally Storage and Transportation
- Lantana
  - Generally Disposal
- Noble (Exciting Stuff)
  - Site Selection/Characterization/Integration
  - Advanced Reactors/Fuels/Fuel Cycles
  - Advanced Monitoring and Characterization



# Wednesday Panel: Building and Maintaining Collaborative Partnerships Between Social Scientists and Technical Staff for Sustainable Solutions to Radioactive Waste Management

Wednesday, November 16, 2022|8:00–9:45AM MST| Honeysuckle

## MODERATOR



**Dr. Kuhika Gupta**  
*Univ. of Oklahoma*

Sustainable solutions for long-term management and eventual disposal of spent nuclear fuel and high-level radioactive waste depend on the interplay among the social, political, and technical realms. The goal of this panel is to discover constructive ways in which social scientists and technical staff can work together to advance solutions that address all aspects of the problem in a collaborative manner. The discussion will highlight the history of interactions between social scientists and technical staff in the context of past disposal programs in the US; what roles different engineering, physical science, and social science disciplines have played and can play; and how to address emerging priorities like environmental justice.

## PANELISTS



**Dr. Sharlissa Moore**  
*Pacific Northwest National  
Laboratory*



**Dr. Hank C. Jenkins-Smith**  
*Univ. of Oklahoma*



**Dr. Evaristo J. "Tito" Bonano**  
*NAC International, Inc.*



**Dr. Monica C Regalbuto**  
*Idaho National Laboratory*



**Dr. Aditi Verma**  
*Univ. of Michigan*

 **ANS**® IHLRWM  
International High-Level Radioactive  
Waste Management Conference 2022



# Thursday Panel: Cool New Reactors Coming to You Soon! But What about the Waste?

Thursday, November 17, 2022|3:15–5:00PM MST| Mesquite

## PANELISTS



**Bob Ledoux**  
ARPA-E



**Kim Petry**  
DOE/NE



**Monica C Regalbuto**  
INL



**Sven Bader**  
Orano



**Doug Ammerman**  
SNL



**Ethan Bates**  
Deep Isolation

The management of advanced reactor waste and HALEU fuels will have some similarities to managing SNF from the current LWR fleet, but the new form factors and uranium assays will also require nuanced adjustments to cask designs, certifications, and disposal requirements. It will likely be prudent to identify these differences as early as possible so that accommodations can be made for the differences. This panel will also discuss what changes might be necessary to the existing infrastructure and what is being done to prepare for future storage, shipments, and disposal.

Evening Social and Awards Ceremony! Please Come!

Kaibab |Wednesday 6:30–8:30PM MST

Awards!

Drinks!

**Nuclear Trivia Contest!**

Networking Bingo!

Music!

Food!



# Plenary: It Takes Everyone! Melding Social, Political, and Physical Sciences for a Successful Radioactive Waste Management Program

Tuesday, November 15, 2022|8:00–9:45AM MST| Honeysuckle

Hear from and join the discussion with the international leaders who have been successful merging the social, political, and physical science areas of communication in nuclear waste management

## International High-Level Radioactive Waste Management 2022 Plenary

International High-Level Radioactive Waste Management Conference

Plenary Session

Tuesday, November 15, 2022 | 8:00–9:45AM MST | Honeysuckle

Itinerary

### SPEAKERS



**David Victor, PhD**  
Professor of Innovation and Public Policy  
University of California, San Diego



**Kim Petry, PhD**  
Deputy Assistant Secretary for Spent Fuel and Waste Disposition  
US Department of Energy



**Erika Holt, PhD**  
Co-Coordinator of the Project "PREDIS: PRE-DISposal management of radioactive waste"  
VTT Technical Research Centre of Finland Ltd.



**Dr. Cha Sung Soo**  
President & CEO  
KORAD (Korea Radioactive Waste Agency)

 **ANS**® IHLRWM  
International High-Level Radioactive  
Waste Management Conference 2022



**Thank You!**