



Monday, 13 May

7am **Registration - Short Course 101 and 301**
Pantlind Concourse (2nd level)

7am **Breakfast - Short Course 101 and 301**
Ambassador Ballroom (2nd Level)

8am **101a -
SC 101- Introduction to Coal Combustion Ash**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Introduction to Coal Combustion Ash
» Lisa Burris

8am **301a -
SC 301- Introduction**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

Introduction
» PJ Nolan

8:15am **301b -
SC 301- Geochemistry of CCP in the Subsurface**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

Geochemistry of CCP in the Subsurface
» PJ Nolan and Jeff Frazier

8:35am **101b -
SC 101- Lab Tests for Ash Characterization**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Lab Test for Ash Characterization
» Robert Rathbone

9am **301c -
SC 301- Empirical Observations and Unresolved Questions on CCP
Leaching: 40 years of EPRI Research**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

**Empirical Observations and Unresolved Questions on CCP
Leaching: 40 years of EPRI Research**
» Bruce Hensel and Lea Millet

9:10am **101c -
SC 101- Coal Combustion Products**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Coal Combustion Products, i.e., scrubber materials
» Ann Palmer

9:45am **101d -
SC 101- The Nature of Poned Ash**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- The Nature of Poned Ash
» Michael McCarthy

10am **301 Short Course - Coffee Break**
Pantlind Concourse (2nd level)



Continued from **Monday, 13 May**

10:20am **101 Short Course - Coffee Break**
Pantlind Concourse (2nd level)

10:30am **301d -
SC 301- Introduction and Approaches to Modeling, Difference
between Geochemical and Flow Modeling**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

**Introduction and Approaches to Modeling, Difference between
Geochemical and Flow Modeling**
» PJ Nolan and Cole Mayer

10:40am **101h -
SC 101- Use of Coal Combustion Products in Cementitious Materials**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

**SC 101- Use of Coal Combustion Products in Cementitious
Materials**
» Rod Jones

11:15am **101f -
SC 101- Coal Combustion Ash Management Practices**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Coal Combustion Ash Management Practices
» Glenn Amey

11:15am **301e -
SC 301- Modeling Attenuation and Reversibility**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

Modeling Attenuation and Reversibility

» Jim Finley, PJ Nolan, and Cole Mayer

12pm **101 and 301 Short Course - Lunch**
Ambassador Ballroom (2nd Level)

12pm **Exhibit Hall Set Up**
Exhibit Hall A, B, C
Chaired by: Alyssa Barto and Brooke Pirmann

1pm **301f -
SC 301- Uncertainty, Interpretation, and Application of Geochemical
Modeling Results and Data**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

**Uncertainty, Interpretation, and Application of Geochemical
Modeling Results and Data**
» Jim Finley and Jeff Frazier

1:10pm **101g -
SC 101- Technology for Beneficiation and Advanced Materials**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Technology for Beneficiation and Advanced Materials
» Nortey Yeboah

1:45pm **101e -
SC 101- Techniques for Harvesting Poned and Landfilled Ash**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Techniques for Harvesting Poned and Landfilled Ash
» Paul Schmall



Continued from **Monday, 13 May**

1:45pm **301g -
SC 301- Tools to Strengthen ASDs: Use and Misuse of Geochemical Evidence**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

Tools to Strengthen ASDs: Use and Misuse of Geochemical Evidence
» Denise Levitan

2:20pm **101i -
SC 101- Advanced Beneficiated Materials and Non-Cement Uses of Ash**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Advanced Beneficiated Materials and Non-Cement Uses of Ash
» Ben Gallagher

2:30pm **301h -
SC 301- Geochemical Changes Observed at CCP Sites After Closure**
Imperial Ballroom (bank)
Chaired by: Dr. PJ Nolan

Geochemical Changes Observed at CCP Sites After Closure
» Jeff Frazier and Denise Levitan

2:55pm **101 Short Course - Coffee Break**
Pantlind Concourse (2nd level)

3pm **301 Short Course - Coffee Break**
Pantlind Concourse (2nd level)

3:15pm **101j -
SC 101- Utilization Trends in CCPs**
Pantlind Ballroom (gold)
Chaired by: Dr. Bob Jewell

SC 101- Utilization Trends in CCPs
» Thomas Adams

3:30pm **301i -
SC 301- Geochemistry for Key CCP Management Decisions and Closing Remarks**
Imperial Ballroom (bank)
Chaired by: Mr. Cole Mayer

Panel Discussion - Geochemistry for Key CCP Management Decisions and Closing Remarks

5pm **Welcome Reception**
Exhibit Hall C

Tuesday, 14 May

7am **Breakfast**
Exhibit Hall C

7am **Registration**
Outside of Ramme

7am **Exhibit Hall Open**
Exhibit Hall A, B, C
Chaired by: Alyssa Barto and Brooke Pirmann



Continued from Tuesday, 14 May	
8am	Plenary Session <i>Ballrooms B, C, D</i> Chaired by: Mr. Thomas Adams and Mr. John Ward
	WOCA 2024 Plenary Presentations » Grant Quasha and Ed Sullivan
8:30am	CLOSED Meeting – MCAA <i>Chase Boardroom</i>
10am	Coffee Break <i>Exhibit Hall C</i>
10:30am	Beneficiation and Processing 1 - Beneficiation and Processing 1 <i>Caylor Room</i> Chaired by: Katherine Coco
10:30am	Path Forward to CCR Conveyor Solutions » Mr. Michael Peden , Mr. Don Fuller II
11am	THE LEGACY ASH RULE: CAN BENEFICIAL REUSE BE A SOLUTION? » Mr. Tom Kierspe
11:30am	Planning for the Future of Beneficial Use » Mr. Gabe Lang , Mr. Don Fuller II, Mr. Nortey Yeboah
10:30am	Emerging Technologies 1 - Emerging Technologies 1 <i>McKinley Room</i> Chaired by: Mr. David Bardsley
10:30am	Streamlining CCR Compliance using a Groundwater Data Management System » Mr. Travis Clark
11am	Implementing automation and SMART pumping systems in CCR projects for improved water collection, treatment, and discharge » Mr. Dave Donahue , Mr. Faizan Chowdhury
11:30am	Ash Beneficiation in the Production of Waste Liner Materials » Mr. Cyril Attwell , Dr. Kelley Reynolds-Clausen , Ms. Phenyo Mvuyana
10:30am	Regulatory Issues 1 - Regulatory Issues 1 <i>Cain Room</i> Chaired by: Ms. Susan Jackson
10:30am	Navigating Challenges Presented by State CCR Regulations » Mr. Brian Hennings , Mr. Eric Tlachac , Mr. Victor Modeer
11am	Applying CCR Lessons Learned to Legacy Rule Implementation » Mrs. Sarah Holmstrom , Mr. Greg Tieman
11:30am	Proposed Effluent Limitations Guidelines for CCR Landfill Leachate and Legacy Wastewater » Ms. Lindy Johnson , Mr. William Kennedy
10:30am	Geotechnical 1 - Geotechnical 1 <i>Manz Room</i> Chaired by: Dr. PJ Nolan
10:30am	Potential Failure Mode Analysis for Groundwater Collection Trench Between a CCR Landfill Berm and a River » Mr. John Seymour , Dr. Onur Tastan, Dr. Paul Sabatini, Mr. Victor Modeer, Mr. Isaiah Vaught



Continued from **Tuesday, 14 May**

11am **Modeling in Support of Dewatering and Closure Construction of an Upstream Raise CCR Surface Impoundment**
» [Mr. Craig Schuettpelz](#), [Dr. Tanya Walkenbach](#), Mr. Todd Stong, Mr. Shane Stockdill

11:30am **PVC LINER INTERFACE FRICTION AND SLOPE STABILITY**
» [Mr. John Klamut](#), [Mr. Ron Harris](#), Mr. James Shields

10:30am **Project Specific Cases 1 - Project Specific Cases 1**
Kruger Room
Chaired by: Mr. Joe Keller

10:30am **How to Find CCRMUs – Case Studies on Demolition Projects**
» [Ms. Cassie Dumoulin](#), Mr. Mark Rokoff

11am **How to Create a Multi-Faceted Strategic Communications Playbook About Coal Ash Management**
» [Ms. Tamara Hinton](#)

11:30am **Dry FGD Byproduct Characteristics and Utilization In China – Development and Trends**
» [Dr. Muhcheng Wu](#), Dr. Qingfa Su, Dr. Jianchun Wang, Mr. Yongrui Chen, Mr. Hong Chen, Mrs. Canfeng Xu, Mr. Maoyuan Lu, Mr. Yiqiang Lai, Mr. Yuan Zhang, Mr. Chunyuan Lin

10:30am **Cement and Concrete 1 - Cement and Concrete 1**
Ramme Room
Chaired by: Dr. Tristana Duvallet

10:30am **Carbon Credit Generation for Harvested and Beneficiated Ash**
» [Ms. Kayla Carey](#)

11am **Calcined Clay Cement: The New Fly Ash for Low Carbon Concrete?**
» [Prof. Rod Jones](#)

11:30am **Advancements in Coal Ash Specifications: What's Needed for Concrete Use Today?**
» [Dr. Lawrence Sutter](#)

10:30am **Panel Discussion - 'Utility Perspectives on Beneficial Use of Harvested CCR'**
Adams Room
Chaired by: Donnie Seward

10:30am **Utility Perspectives on Beneficial Use of Harvested CCR**
» [Dr. Michael Turnbow](#), [Mr. Brett Mitchell](#), [Mr. Chris Gee](#)

10:30am **Groundwater and Environment 1 - Groundwater and Environment 1**
Robl Room
Chaired by: Mr. Graham Crockford

10:30am **Dewatering Optimization Strategies in Support of Closure by Removal (CBR) to Accelerate Groundwater Cleanup at CCR Sites with Case Study**
» [Mr. Sean Larkin](#), Dr. Jacob Chu

11am **Understanding the Challenges of Establishing Suitable Groundwater Monitoring Systems for Compliance with the Legacy Rule Revisions to CCR Regulations.**
» [Mr. Wayne Weber](#), Dr. James Feild, Mr. Rob Heimbach, Mr. Chris hoglund

11:30am **CCR Dewatering – Back to the Basics**
» [Dr. Paul Schmall](#)

10:30am **Landfill and Pond Issues 1 - Landfill and Pond Issues 1**
Goss Room
Chaired by: Mr. Ron Hager



Continued from **Tuesday, 14 May**

10:30am **CCR Landfills - Part 1: Groundwater Considerations during Design and Construction**

» [Mr. Johnathan Ebenhack](#), Mr. Jerry Wylie

11am **CCR Landfills - Part 2: Using a Graphical Interpretation with Model Simulations to Predict Groundwater Elevations During and After CCR Landfill Construction**

» [Mr. Jerry Wylie](#), Dr. Rong Yu

11:30am **Considering the Big Picture: Planning and Designing for a Multiple CCR Landfill Site**

» [Mr. Andrew Rodzianko](#), Ms. Monica Moody

10:30am **Mining and Reclamation 1 - Mining and Reclamation 1**

Marksberry Room (B)

Chaired by: Ms. Haley Johnson

10:30am **Use of Harvested Fly Ash and Landfilled FGD Materials for Mine Reclamation**

» [Dr. Tarunjit Butalia](#)

11am **Novel Mining Materials Based on Coal Solid Waste**

» [Dr. Dong Zhang](#), Dr. Yang Dong, Dr. Jinder Jow, Dr. Si-yu Gong, Dr. Chun-lei Geng, Mr. De-hai Lin

11:30am **Manufacturing of LEED Sustainable Building Materials from Previously Landfilled Off-Spec Fly Ash**

» [Mr. Randall Stremmel](#)

10:30am **Ash Management 1 - Ash Management 1**

Marksberry Room (A)

Chaired by: Ms. Jillian Cavellier

10:30am **Coal Combustion Products Worldwide - On the Stretch from Suitability to Sustainability**

» Mr. Craig Heidrich, Dr. Jinder Jow, Mr. Thomas Adams, [Dr. Hans-loachim Feuerborn](#)

11am **Design and Construction Challenges with Construction of a Landfill in a Former CCR Basin**

» [Mr. Kory Anstead](#)

11:30am **Innovative Solutions for a Unique CCR Facility Closure - A Case Study**

» [Ms. Brittany Hebbeler](#), Mr. Nathan Bader, Mr. Shane Harris

10:30am **CLOSED - networksY & Ashcor meeting**

Chase Boardroom

11:30am **WWCCPN Meeting - CLOSED Meeting - WWCCPN Meeting**

Chase Boardroom

12pm **Lunch**

Exhibit Hall C

1pm **Beneficiation and Processing 2 - Beneficiation and Processing 2**

Caylor Room

Chaired by: Robert Rathbone

1pm **Changes in the Nature of Midwestern Fly Ash Over the Past Two Decades: I. Chemistry, Mineralogy, and Beneficial Potential**

» [Dr. Bob Jewell](#), Ms. Anne Oberlink, Dr. Thomas Robl

1:30pm **Changes in Midwestern Fly Ash II. Air Classification, Magnetic Separation and the Pozzolanic Characteristics of the Ash**

» Ms. Anne Oberlink, Ms. Sydney Dendekker, Ms. Haley Johnson, [Dr. Thomas Robl](#), Dr. Bob Jewell



Continued from **Tuesday, 14 May**

- 2pm **Beneficial Use of Fly-Ash through Soil Stabilization and Portland Cement Concrete Mix**
» [Dr. Adam Kaplan](#), Dr. M. A. Karim, Dr. Youngguk Seo
- 2:30pm **Collaborative utilization of fly ash and desulfurization wastewater**
» Ms. Xia Wang, Dr. Yang Dong, [Dr. Jinder Jow](#)
- 3pm **Use of Visualization Software as a Tool for Site Characterization**
» [Mr. Kevin Cernik](#), Mr. Craig Schuettpelz, Mr. Shane Stockdill, Mr. Todd Stong

1pm **Emerging Technologies 2 - Emerging Technologies 2**
McKinley Room
Chaired by: Mr. Bradford Cooley

- 1pm **Removal of Selenium from Difficult-to-treat Wastewaters Using an Innovative Reductive-adsorptive Media**
» [Mr. Patrick McKeown](#), Dr. Madan Tandukar, Dr. Steve Woodard, Mr. Mike Nickelsen
- 1:30pm **Wicking Wells, a new novel method to remediate dissolved solids in groundwater**
» [Mr. Shane McDonald](#)
- 2pm **Efficacy and Applications of Microbial Induced Calcium Carbonate Precipitation in Coal Ash Management**
» [Mr. William Odle](#), Prof. Brina Montoya, Dr. Pegah Ghasemi
- 2:30pm **An Innovative and Cost-Effective Boron Adsorbent Media**
» [Ms. Allison Kreinberg](#), Mr. Rob Ferree, Dr. Duane Graves

1pm **Regulatory Issues 2 - Regulatory Issues 2**
Cain Room
Chaired by: Ms. Leslie Miller

- 1pm **CASE STUDY: BEST PRACTICES IN IMPLEMENTING THE FACILITY EVALUATION REPORT (PER THE LEGACY CCR SI RULE)**
» [Mr. Mark Rokoff](#)
- 1:30pm **Legacy Rule Implementation Deadlines: Examining the Agency vs. Industry Disconnect**
» [Mr. Lucas Carr](#), Mr. Eric Tlachac, Mr. Brian Hennings
- 2pm **Legacy Rule Insights and Challenges**
» [Mrs. Arica DiTullio](#), [Ms. Leigh Rounce](#)
- 2:30pm **Proposed CCR Legacy Rule – Making Sense from Chaos**
» [Mr. Will Mattingly](#), [Mr. Charla Barnes](#)
- 3pm **Proposed Legacy Rule – Groundwater Compliance Nuances and Lessons Learned**
» [Mr. Matt Dagon](#), Dr. Peter Thibodeau

1pm **Cement and Concrete 2 - Cement and Concrete 2**
Manz Room
Chaired by: Dr. Neal Berke

- 1pm **Exploring Rapid Solidifying Fly Ash Cementitious Materials for Making Structural Components**
» [Ms. Tulie Chakma](#), [Mr. Stephen Gordon](#), Dr. Shaurav Alam, Dr. John Matthews
- 1:30pm **The durability of mortars and concrete with a high volume of Ordinary Portland Cement (OPC) substituted by a fly ash calcium sulfoaluminate binder**
» [Dr. Peeter Paaver](#)



Continued from Tuesday, 14 May	
2pm	<p>Performance of 5-year old concrete made with spray dryer absorber material</p> <p>» Mr. Benjamin Gallagher, Mr. Sundar Chithiraputhiran, Mr. Travis Collins</p>
2:30pm	<p>The Future of CCR "Green Cement" Technology to Reduce CO2 and Provide High-Performance Products</p> <p>» Mr. Russell Stapp</p>
1pm	<p>CCP Chemistry and Classification 1 - CCP Chemistry and Classification 1</p> <p><i>Kruger Room</i></p> <p>Chaired by: Dr. Heileen Hsu-Kim</p>
1pm	<p>Coal Combustion Residual Characterization for Beneficial Use</p> <p>» Mr. Jimmy Knowles</p>
1:30pm	<p>Coal Ash Constituents and Treatment Options</p> <p>» Mrs. Christine Harris, Mr. Rob Orlando</p>
2pm	<p>Exploring Non-Traditional Coal Ash as a Sustainable Alternative in Concrete: Performance Analysis and Predictive Modeling</p> <p>» Mr. Behzad Tahmouresi, Dr. Tyler Ley</p>
2:30pm	<p>An Evaluation of On-Site X-Ray Fluorescence (XRF) Analysis on Coal Combustion Residuals</p> <p>» Mr. Christopher Frishcosy, Dr. Ashley Manning-Berg, Ms. Linen Cooper, Mr. Robert Hageman, Mr. Timothy Moyers, Ms. Tara Masterson, Mr. Nicholas McClung</p>
3pm	<p>Application of Data Science Techniques to Estimate Soluble Alkali Contribution from Fly Ashes for Determination of Concrete Pore Solution Chemistry</p> <p>» Prof. Anol Mukhopadhyay</p>

1pm	<p>Environmental Issues 1 - Environmental Issues 1</p> <p><i>Ramme Room</i></p> <p>Chaired by: Mr. Jason House</p>
1pm	<p>A Practical Approach to Manufacturing Sintered Lightweight Aggregates (LWA) from Unrecycled Coal Combustion Ash (CCA)</p> <p>» Mr. Yousif Algenai, Mr. Mohammadamin Zooyousefin, Ms. Thuy Nguyen, Dr. Mo Balapour, Mr. Yaghoob (Amir) Farnam</p>
1:30pm	<p>Ash Utilisation for The Protection and Improvement of Electrical Transmission Infrastructure</p> <p>» Mr. Cyril Attwell, Dr. Kelley Reynolds-Clausen, Ms. Pheny Mvuyana</p>
2pm	<p>Managing Ash Pond Closure Waters: Technology Selection and Design Considerations</p> <p>» Mr. Philip Benson</p>
2:30pm	<p>Corrective Action Sustainability: Holistic Decision Support Tool</p> <p>» Mr. John Kondziolka, Ms. Ari Lewis, Mr. Bruce Hensel, Mr. Andrew Bittner</p>
3pm	<p>Heavy Metals Reduction and Sequestration at Coal Combustion Residuals (CCR) Sites</p> <p>» Mr. Lowell Kessel</p>
1pm	<p>Panel Discussion - 'Implementing the Final CCR Legacy Rule'</p> <p><i>Adams Room</i></p> <p>Chaired by: Mr. Robert Glazier</p>
1pm	<p>Implementing the Final CCR Legacy Rule</p> <p>» Mr. Robert Glazier, Mrs. Martha Thomsen, Mr. John Seymour, Mr. Victor Modeer</p>
1pm	<p>Groundwater and Environment 2 - Groundwater and Environment 2</p> <p><i>Robl Room</i></p> <p>Chaired by: Dr. Ben Amos</p>



Continued from **Tuesday, 14 May**

- 1pm **Effective Groundwater Treatment at CCR sites**
» [Mr. Mark Bryant](#), [Mr. Derek Ingram](#), Mr. Michael Marley
- 1:30pm **Arsenic Treatment from Coal Ash Pond Groundwater**
» [Dr. Jack Ma](#), Mr. David Donkin, Mr. Morgan French
- 2pm **Bench-Scale Testing of Selenium Treatment using Passive, Constructed Treatment Wetlands**
» [Ms. Katy Lindstrom](#), [Mr. Ryan Schipper](#), Mr. Andrew Dykstra
- 2:30pm **In Situ Groundwater Treatment of Arsenic via Iron Coprecipitation with Air Sparge: Opportunities and Challenges**
» [Dr. Michael Hay](#), Mr. Britt McMillan, Ms. Whitney Sauve, Mr. Daniel Groher, Ms. Nica Klaber, Ms. Janet Mathews-Flynn
- 3pm **Feasibility of Concurrent Treatment of Arsenic and Molybdenum through Co-Precipitation and Adsorption with Case Study and Cost Analysis**
» [Mrs. Prachi Jain](#), [Mr. Brian Colonnese](#), Dr. Jacob Chu
- 1pm **Landfill and Pond Issues 2 - Landfill and Pond Issues 2**
Goss Room
Chaired by: Neil Hancock
- 1pm **Planning and Implementation of Closure by Removal (Clean Closure) In Louisiana**
» [Ms. Angela Harrigal](#), [Ms. Denise Radaich](#)
- 1:30pm **CCR Facility Instrumentation for Closure Programs**
» [Mr. Zachary Boucias](#), [Mr. Pierre Gouvin](#), Mr. Dale Evans
- 2pm **Beyond Decommissioning: Utility Scale Zero Liquid Discharge Solutions for Landfill Leachate and FGD Wastewater Post Power Plant Closure**
» [Mr. Joseph Woodley](#), Mr. Morgan French

- 2:30pm **Spillway Abandonment for CCR Site Closure – Techniques and Challenges**
» [Ms. Brooke Alison](#), Mr. Shane Harris, Mr. Nicholas Golden
- 3pm **Comparing Landfill Post-Closure Stormwater Runoff – Vegetated Soil Cover versus Engineered Synthetic Turf Cover**
» [Mr. Mark Taylor](#), Mr. Chris Jordan, [Mr. Chris Timpson](#), Dr. Ming Zhu
- 1pm **Environmental Ash Management 1**
Marksberry Room (B)
Chaired by: Ms. Brittany Hebbeler
- 1pm **The Closure and Capping of Ash Treatment Basin 2 at Kentucky Utilities Ghent Generating Station**
» [Mr. Steven Turner](#), Mr. Jeffrey Heun
- 1:30pm **Effects of low-dosage lime treatment on beneficial reuse of pond ash as Secondary Cementitious Materials (SCMs)**
» [Mr. Howard Fitzgerald](#), Mr. Utsa Rashique, Mrs. Karen Slade, Mr. Ian Saratovsky
- 2pm **Coal Ash & the Public – Tell your story before someone else does!**
» [Mr. Tim Hancock](#), [Ms. Melissa Hedgecoth](#)
- 2:30pm **Designing for Operational Flexibility at CCR Groundwater Extraction and Treatment Systems**
» [Ms. Erin Diven](#), Mr. Danny Stephens, Mr. matt newhart
- 3pm **Chemical-free, High-volume Leachate Pond Filtration: Commercial Success**
» [Mr. Gerard Simon](#)
- 1pm **Impoundment and Ponds 1**
Marksberry Room (A)
Chaired by: Steve Putrich



Continued from **Tuesday, 14 May**

1pm **Impoundment Closure Using Discrete In-situ Solidification – Site Update**

» [Mr. Tim Silar](#), Mr. John Magee

1:30pm **Successful Piloting of Discrete ISS at a CCR Impoundment**

» [Mr. George Little](#), Dr. Paul Lear, Mr. Tim Silar, Mr. Richard Chapman, Mr. John Magee, Mr. Ambaresh Tijare, Mr. David Miller

2pm **Evaluating Surface Impoundment Closure Alternatives Using Relative Impact Assessment – Two Case Study Examples**

» [Mr. Andrew Bittner](#), Dr. Qian Zhang

2:30pm **PREPARING TO DEWATER A CCR POND: WAYS TO BETTER UNDERSTAND YOUR POND CHARACTERISTICS AND PLAN FOR A SUCCESSFUL DEWATERING EFFORT**

» [Mr. Ron Hager](#), Dr. James Feild

3pm **Planning and Implementation of Closure by Removal Paired with Beneficial Use**

» [Mr. Jay Mokotoff](#), [Mrs. Angela Casbon-Scheller](#)

3:30pm **Poster Session -
Poster Session/Happy Hour**

Exhibit Hall C

Chaired by: Ms. Anne Oberlink

Fly Ash-based Geopolymer: Microstructure and Compressive Strength

» [Ms. Lujain Salem](#), Dr. Young Hoon Kim

New Applications for Beneficial Reuse of Coal Combustion Ash

» [Ms. Anne Oberlink](#), Dr. Bob Jewell, Dr. Thomas Robl, Mr. Curtis Wilie, Mr. Jim Crenshaw, Mr. Scott Hoskins, Ms. Hailey Mattingly

Separation and extraction of rare earth elements in high aluminum fly ash from a power plant in Inner Mongolia, China

» [Prof. S.J. Qin](#), Dr. SHENYONG LI, Mr. Shuai Kang, Ms. Wei Pang, Mr. Longlong Hao

Example Application of a Holistic Decision Support Tool Used for Selecting Corrective Actions at Coal Combustion Product Sites

» [Ms. Ari Lewis](#), [Mr. John Kondziolka](#), Mr. Matt Biega, Dr. Egidio Tentori, [Dr. Qian Zhang](#), Dr. Ishita Shrivastava, Mr. Bruce Hensel

How sampling methods affect the interpretation of groundwater microbial communities

» [Dr. Ann Ojeda](#), Dr. Natalia Malina, Ms. Elyssa Rivera, Ms. Shifat Monami, Dr. Laura Bilenker, Dr. Ming-Kuo Lee

Relationship of Energy and the Effect on Coal Combustion Residual (CCR) Behavior: A Study of Moisture-Density Relationships

» [Mr. Tyler Hitt](#), Mr. Harvey Upchurch, Mr. Will Rex

Bioengineering of a Plant System to Remove Arsenic and Cadmium and Sustainably Harvest Rare Earth Elements (REEs) from Fly Ash.

» [Ms. Edmaritz Hernandez Pagan](#), Dr. Colleen Doherty, Dr. Michael Kudenov, Dr. Kanjana Laosuntisuk

Remote characterization of impounded ash

» [Mr. Krish Mehta](#), Dr. Manju Murugesu

Use of Unconventional Fly Ash as Sensible Particulate Thermal Energy Storage Materials for Concentrating Solar Power

» [Ms. Megan Bellusci](#), [Ms. Kiana Oos](#), Dr. Deborah Glosser, Mr. Drew Johnson, Dr. Prannoy Suraneni

Understanding the Impact of Fly Ash Particle Size on Reactivity and Strength Development

» [Mr. Mahmud Yahya](#), Dr. Lisa Burris



Continued from **Tuesday, 14 May**

Functionality of Coal Fly Ash in Mortars After Rare Earth Element Recovery

» Ms. Rahima Tufail, Dr. Sarah Brownlee, Dr. Timothy Dittrich, Dr. Matthew Allen, Dr. Mohammad Dardona, Dr. Sai Praneeth, Dr. Ahmed Sakr, Mr. Dimitrios Porter, Mr. Chandra Tummala, Mr. Preetom Roy

Fly Ash and Lime Stabilization of Sewage Sludge: Changes to Phosphorous Solubility and Bioavailability

» Dr. Yaniv Freiberg, Dr. Shahar Baram, Dr. Michael Borisover, Dr. Pinchas Fine

Application of carbon nanotube technology to fly-ash based geopolymer concrete for strength development and net-zeros aspect

» Ms. Janell Prater, Dr. Young Hoon Kim

Agricultural Gypsum for Improved Production and Soil Carbon Capture

» Dr. Brian Gardener, Dr. Roland Wilhelm

Swell compression testing on Kaolinite Gypsum Systems

» Mr. Kelden Andrews, Dr. Thomas Robl, Dr. Tristana Duvallet, Dr. Bob Jewell, Mr. Ewen Floch

4:30pm **Invite Only - Harvested CCR Consultation Forum**

Caylor Room

Chaired by: Dr. Tarunjit Butalia

Wednesday, 15 May

7am **Breakfast**

Exhibit Hall C

7am **Registration**
Outside of Ramme

7am **Exhibit Hall Open**
Exhibit Hall A, B, C

8am **Beneficiation and Processing 3 -
Beneficiation and Processing 3**
Caylor Room
Chaired by: Mr. Gabe Lang

8am **Uniaxial Compressive Behavior of "Solidified" Synthetic
Lightweight Aggregates**
» Ms. Annika Han, Prof. Chris Swan

8:30am **A technology platform to recycle off-spec coal combustion
products into construction lightweight aggregate**
» Dr. Mo Balapour

9am **Ash recovery from legacy stock - issues to consider based on
experience in France**
» Mr. Loic Danest

9:30am **Harvested Fly Ash Beneficiation Using a Triboelectric Belt
Separator**
» Mr. Kyle Flynn, Mr. Kamal Ghazi, Mr. Doug Widener, Mr. Abhishek Gupta, Mr. Frank Hrach

8am **Emerging Technologies 3 -
Emerging Technologies 3**
McKinley Room
Chaired by: Mr. Colin Plank

8am **DEMONSTRATING EQUIVALENCY OF CLOSURETURF AS A VIABLE
ALTERNATIVE TO TRADITIONAL CCR FINAL COVER SYSTEMS**
» Mr. Tyler Schmidt



Continued from **Wednesday, 15 May**

8:30am **Performance of Engineered Turf Cover System Under Extreme Weather Conditions**

» [Mr. Thomas Orzech](#), Dr. Bryan Scholl, Mr. Bradford Cooley, Dr. Ming Zhu

9am **ADVANCED SYNTHETIC AND CONCRETE REVETMENT SYSTEM FOR CCR CLOSURE APPLICATIONS**

» [Mr. Bradford Cooley](#), Mr. Randy Thompson

9:30am **Emerging technologies for water conveyance and containment**

» [Mr. Nathan Ivy](#)

8am **Regulatory Issues 3 -
Regulatory Issues 3**

Cain Room

Chaired by: Mr. Brian Hennings

8am **CAPPING & CLOSURE FOR TWO PENNSYLVANIA LANDFILLS SUBJECT TO U.S. EPA'S CCR RULE PROMULGATED UNDER 40 CFR 257 SUBPART D**

» [Mr. John Klamut](#), Mr. Ron Harris, Mr. Cory White

8:30am **LIFE AFTER COAL? OPPORTUNITIES AND CHALLENGES AT DECOMMISSIONED COAL-FIRED POWER SITES**

» [Ms. Leslie Miller](#), Mr. Brian Owens, Ms. Stacey VanBelleghem

9am **IT'S HERE NOW! SUMMARIZING KEY ELEMENTS IN THE NEW LEGACY CCR SI RULE**

» [Mr. Mark Rokoff](#)

8am **Geotechnical 2 -
Geotechnical 2**

Manz Room

Chaired by: Mr. Craig Schuettpelz

8am **TVA Shawnee – Overcoming Engineering Challenges Associated with Closure In Place of Mixed Ash**

» [Mr. Craig Lee](#), Mr. Michael Owens

8:30am **Case Study: Perimeter Barrier Wall Installation to Facilitate Closure by Removal**

» [Dr. Paul Schmall](#), Mr. Shawn Coughlin, Mr. Christopher Gee

9am **A Decade of Automated Instrumentation Data – A TVA Story**

» [Mr. Nicholas McClung](#), [Mr. Matt Bishop](#), Mrs. Nicole Walker, Mr. Chris Jones

8am **Project Specific Cases 2 -
Project Specific Cases 2**

Kruger Room

Chaired by: Mr. Dave Donahue

8am **Lessons Learned Through the Implementation of In-Situ Stabilization for the Closure of a Coal Combustion Residue Site**

» [Mr. Vincent Spillane](#), Mr. Michael Fisher, Mr. Darin Payne

8:30am **Data Collection, Assimilation and Reporting Methods to Support Pond Closure – A Case Study**

» [Ms. Katherine \(Kat\) Warwick \(Coco\)](#), Mr. Joe Keller, Dr. Kirkland Broadwell

9am **Successful Installation of a Vertical Hydraulic Barrier at a CCR Impoundment During In-Place Closure**

» [Mr. Jim Edwards](#), Mr. Sylvain Payne-Gagnon

9:30am **EPA's Value Engineering Approach for Gypsum Stack Closure**

» [Mr. Michael Ayers](#), [Mr. Craig Zeller](#)

8am **CCP Chemistry and Classification 2 -
CCP Chemistry and Classification 2**

Ramme Room

Chaired by: Ms. Tara Masterson



Continued from **Wednesday, 15 May**

- 8am **Geospatial Resource Reserve Dataset of Coal Ash Quality at Electric Power Facilities in the United States**
» [Dr. Heileen Hsu-Kim](#), Mr. Zehao Jin, Dr. James Hower
- 8:30am **Risk-Based Decision Making to Guide CCR-Impacted Soil Remediation**
» [Mr. Jay Peters](#), [Ms. Courtney Murphy](#)
- 9am **Lessons Learned Managing Water Chemistry in High Recycle Rate Bottom Ash Transport Systems**
» [Mr. David Donkin](#), Mr. Bernie Evans
- 9:30am **Developing Site-Specific Background Soil Concentrations of CCR Parameters at Fossil Plants**
» [Mr. Edgar Smith](#)
- 8am **Panel Discussion - Panel Discussion - Legacy Stockpiles of Coal Derived Fly Ash (CDFA) in the United Kingdom and Associated Research**
Adams Room
Chaired by: Dr. Nigel Cooke
- 8am **Soliciting Support from UK Government to Safeguard Legacy Stockpiles of Coal Derived Fly Ash (CDFA)**
» [Dr. Nigel Cooke](#)
- 8:30am **Investigating Coal Derived Fly Ash from UK Legacy Stockpiles and Beneficiation for Use in Concrete Construction**
» [Dr. Michael McCarthy](#), Dr. Thomas Hope, Dr. Laszlo Csetenyi
- 9am **Fly Ash Harvesting: Simultaneous Drying, Sizing, and Carbon Reduction Demonstration**
» [Mr. Scott Coley](#), [Mr. Doug Widener](#), Mr. Frank Hrach, Mr. Lewis Baker, Mr. Andrew Rigg

- 8am **Groundwater and Environment 3 - Groundwater and Environment 3**
Robt Room
Chaired by: Mr. Nathan Higerson
- 8am **Groundwater Model Workflow for CCR Sites**
» [Mr. William Gottobrio](#), Mr. Cliff Baines, Ms. Roselyne Laboso, Mr. Skyler Sorsby
- 8:30am **Visualization Tools to Enhance Conceptual Site Models Throughout the Project Life Cycle**
» [Mrs. Darby Litz](#), Mr. Jason House
- 9am **Reactive Transport Modeling of Closure-in-Place with Intersecting Groundwater and Remedial Actions: Part I, Model Creation and Execution**
» [Dr. Jason James](#), [Dr. Olivia Paradis](#), Dr. Rachel Kelly, Dr. Walter McNab, Mr. Bruce Hensel
- 9:30am **Reactive Transport Modeling of Closure-in-Place with Intersecting Groundwater and Remedial Actions: Part II, Results and Meaning**
» [Mr. Bruce Hensel](#), [Dr. Jason James](#), [Dr. Olivia Paradis](#), Dr. Rachel Kelly, Dr. Walter McNab
- 8am **Groundwater and Environment 4 - Groundwater and Environment 4**
Goss Room
Chaired by: Mr. Brooks Rosandich
- 8am **Next-Generation High-Resolution Methods for Site Characterization**
» [Dr. PJ Nolan](#), Mr. Cole Mayer, Ms. Dawn Prell, Dr. Rens Verburg
- 8:30am **Communicating Corrective Action Approach and Timing**
» [Mr. Paul Thomas](#), [Mr. Jim Finley](#)



Continued from **Wednesday, 15 May**

- 9am **High Resolution Site Characterization to Increase Corrective Action Efficiency**
» [Ms. Kathryn Farris](#), Dr. Margaret Gentile, Mr. Geoff Gay
- 9:30am **ASSET RETIREMENT OBLIGATIONS: UPDATING YOUR AROS BASED ON THE PROPOSED LEGACY CCR SURFACE RULE**
» [Mr. Ron Hager](#)
- 8am **Landfill and Pond Issues 3 - Landfill and Pond Issues 3**
Marksberry Room
Chaired by: Mr. John Bove
- 8am **Dewatering Basics - Understanding the challenges of dewatering**
» [Mrs. Christine Harris](#)
- 8:30am **Systematic Dewatering for CCR Ponds**
» [Mr. Dale Evans](#), Dr. Paul Schmall
- 9am **An Innovative and Economical Approach To Ash Dewatering**
» [Mr. Morgan French](#)
- 9:30am **DESIGN AND MODELING TO DEWATER A PARTIALLY CLOSED ASH POND**
» [Mr. Michael Thornbrue](#)
- 10am **Coffee Break**
Exhibit Hall C
- 10:30am **Landfill and Pond Issues 6 - Landfill and Pond Issues 5**
Caylor Room
Chaired by: Mr. Dale Evans

- 10:30am **Ash Basin Excavation Under Strict Orders - A Measured Approach**
» [Mr. Mark Taylor](#), [Mr. EVAN ANDREWS](#), Mr. Longde Jin, Mr. Naveen Ganji
- 11am **Stress-Related Considerations for GCL Shear Performance in Coal Ash Facilities**
» [Dr. Jeffrey Kuhn](#), Mr. Rich Lacey
- 10:30am **Geotechnical 3 - Geotechnical 3**
McKinley Room
Chaired by: Mr. John Klamut
- 10:30am **Dewatering System Installation Methods for Ash Dewatering and Deep Depressurization- A Case Study**
» [Mr. Christopher Gee](#), [Dr. Paul Schmall](#), Mr. Shawn Coughlin, Mr. Christopher Jones
- 11am **Seismic Interferometry Technique for Characterization of Loose CCR Layers**
» [Dr. Seda Gokyer Erbis](#), Dr. Allen Marr, Dr. Thomas Bardainne, Mr. Renaud Tarnus, Mrs. Ellen Money, Mr. Nicholas McClung, Mr. Matt Bishop, Mr. Jonathan Petsch
- 10:30am **Cement and Concrete 3 - Cement and Concrete 3**
Cain Room
Chaired by: Dr. Bob Jewell
- 10:30am **A Study on the Applicability of Dry Bottom Ash as a Fine Aggregate for Lightweight Aggregate Concrete**
» [Dr. Sangchul Shin](#), Dr. Jinman Kim, Dr. Hoonsik Hong
- 11am **Fairly Assessing Slowing Reacting Cement for Low Carbon Concrete**
» [Prof. Rod Jones](#)



Continued from **Wednesday, 15 May**

- 11:30am **Improving Testing to Rapidly Identify High Quality Pozzolanic Supplementary Cementitious Materials**
» [Dr. Lisa Burris](#), [Dr. Prannoy Suraneni](#), [Dr. Thomas Robl](#)
- 10:30am **CCP Storage and Management 1 - CCP Storage and Management 1**
Manz Room
Chaired by: Mr. Max Cange
- 10:30am **The Closure of the Gypsum Storage Pond (GSP) by Removal and Use as Fill in the Bottom Ash Pond (BAP) at the Louisville Gas and Electric (LG&E) Trimble Generating Station**
» [Mr. Steven Turner](#), Mr. John Williams, Mr. Jarrett Beach
- 11am **Pathways to maximise stored Coal Combustion Products (CCPS): Partnership between NSW Government and Ash Development Association of Australia**
» [Mr. Craig Heidrich](#), Dr. Warren South
- 11:30am **Final Waste Management Options Analysis**
» [Ms. BreAnne Kahnk](#), [Mr. Todd Martin](#)
- 10:30am **Rare Earth Elements 1 - Rare Earth Elements 1**
Kruger Room
Chaired by: Dr. Denise Levitan
- 10:30am **Separation process and mechanism of lithium and gallium by microwave enhanced leaching of high-alumina coal ash**
» [Dr. SHENYONG LI](#), Ms. Qian Wang, Mr. Shuai Kang, Ms. Wei Pang, Mr. Longlong Hao, Prof. Shenjun Qin
- 11am **Novel Critical Metals Recovery Techniques from Coal Ash**
» [Mr. Claudio Arato](#)

- 11:30am **The occurrence of rare earth elements in South African coal ash: identification and characterisation**
» [Prof. Nicola Wagner](#), Ms. Vhonani Rerani, Prof. Christopher Baiyegunhi, Dr. Sanki Biswas, Ms. Happy Mabowa
- 10:30am **Disposal and Waste 1 - Disposal and Waste 1**
Ramme Room
Chaired by: Mr. Harold Register
- 10:30am **CCR Closure: Best Practices in Project Management that Provide Asset Protection Throughout Each Stage of the Construction Life Cycle by Reducing Liabilities, Ensuring Quality and Expediting Regulatory Acceptance.**
» [Mr. Glen Toepfer](#)
- 11am **Design and commissioning of coal fly ash filter plant**
» [Mr. James Keat](#), Mr. Jason Hamelehle, Mr. Casey Schmitt
- 11:30am **Demolition of the Navajo Generating Station**
» [Ms. Sunshine Pryor](#), Mr. Pete Everds, Mr. Michael O'Hare
- 10:30am **Panel Discussion - 'Expert Perspectives on the U.S. Coal Combustion Products Market - Now, Then, and the Future'**
Adams Room
Chaired by: Mr. David Cox
- 10:30am **Expert Perspectives on the U.S. Coal Combustion Products Market - Now, Then, and the Future**
» [Mr. David Cox](#), [Mr. John Ward](#), [Mr. Mark Rokoff](#), [Mr. Danny Gray](#)
- 10:30am **Groundwater and Environment 5 - Groundwater and Environment 5**
Robl Room
Chaired by: Jeremy Gasser



Continued from **Wednesday, 15 May**

10:30am **Effective Remedial Measure: Evaluating Monitored Natural Attenuation Paired with Source Control**
» [Mrs. Kelly Ferri](#), Mr. Craig Eady, Mrs. Kathy Webb

11am **Natural Attenuation of Metals and Inorganics: Insights from Laboratory Testing Approaches**
» [Ms. Larissa Smith](#), Mr. Michael Healey, Mr. Jeff Roberts, Ms. Allison Kreinberg, Ms. Crystal Wilson, Mr. Lane Dorman, Mr. Andrzej Przepiora

11:30am **When is MNA Not Enough? Avoiding Unwarranted Contingency Actions**
» [Mr. Geoff Gay](#), [Dr. Margaret Gentile](#), Mr. Mark Lupo

10:30am **Groundwater and Environment 6 - Groundwater and Environment 6**
Goss Room
Chaired by: Ms. Shannon Zahuranec

10:30am **Implementation Issues, Groundwater Corrective Action, Laramie River Station, Basin Electric Power Cooperative**
» [Mr. Jeremy Hurshman](#), Mr. Dennis Connair

11am **Cutoff Walls for Groundwater Containment and Corrective Action**
» [Mr. Dale Evans](#), [Dr. Paul Schmall](#), Mr. Jeff Bean

11:30am **In Situ Remediation of Multi-Metal Groundwater Plumes (Arsenic, Cobalt, Lithium, and Molybdenum): Treatability Studies**
» [Dr. Dimitri Vlassopoulos](#), Dr. Masa Kanematsu, Dr. Jason Stuckey, Ms. Grace Weatherford, Ms. Minna Carey

10:30am **Landfill and Pond Issues 4 - Landfill and Pond Issues 4**
Marksberry Room
Chaired by: Mr. Andrew Rodzianko

10:30am **Lessons Learned from Landfill Construction Inside Former Ash Ponds**
» [Mr. John Bove](#)

11am **Coal ash engineering: A look back at the past and peak into the future**
» [Dr. Ramachandran Kulasingam](#)

11:30am **Focused Constructability Review Process for Ash Pond Closures**
» [Mr. Sean Rome](#)

12pm **Lunch**
Exhibit Hall C

12pm **Student Lunch - Invitation Only - Student Lunch**
Atrium Room

1pm **Regulatory Issues 4 - Regulatory Issues 4**
Caylor Room
Chaired by: Mr. Greg Tieman

1pm **Fix or Fight: EPA's Part A and Part B groundwater monitoring deficiency findings**
» [Mr. Kevin Solie](#), Ms. Kaela Nerhus, Mr. Jim Aiken

1:30pm **New Directions in Bottom Ash Transport Water – Managing Limited or No Discharge Requirements**
» [Ms. Lindy Johnson](#), Mr. William Kennedy

2pm **CCR Regulations Drive Uncertainty for Beneficial Use Projects Past and Present**
» [Ms. Susan Jackson](#), [Mrs. Martha Thomsen](#), [Ms. Dawn Santoianni](#)

2:30pm **Coal Combustion Residuals Rule: Utility Perspective Looking at 2024 and Beyond**
» [Mr. Harold Register](#), Mr. Daniel Chartier



Continued from **Wednesday, 15 May**

3pm **Emerging Regulations and Operational Preparedness – Key Areas to Ensure Future Success for 2023 ELGs**

» [Mr. Joseph Woodley](#), Mr. Morgan French

1pm **Beneficiation and Processing 4 - Beneficiation and Processing 4**

McKinley Room

Chaired by: Mr. Ethan Bond

1pm **Assessing CCR Beneficiation Options for CCR Pond Closures**

» [Mr. Kelly Babichuk](#), [Mr. Dale Evans](#)

1:30pm **Successful Beneficiation Strategies for Harvested Coal Ash Residuals (CCR)**

» [Mr. Bill Fedorka, P.E.](#)

2pm **Successful practices to accelerate pond closure with beneficial reuse of CCR**

» [Mr. John Gartin](#), Mr. Dearl Tate, Mr. Tom Kierspe

2:30pm **Ponded Ash Beneficial Use Investigation and Bid Solicitation**

» [Mr. Adam Poffenberger](#)

3pm **Ash Beneficiation in Road Construction Materials.**

» [Mr. Cyril Attwell](#), Dr. Kelley Reynolds-Clausen

1pm **Emerging Technologies 4 - Emerging Technologies 4**

Cain Room

Chaired by: Brian Hoye

1pm **Remediation of Li, Mo, As and other metals at CCR Landfills and Ponds**

» [Mr. Lowell Kessel](#)

1:30pm **TVA Solar Installation on a Closed CCR Unit**

» [Mr. Steve Mayes](#), Mr. Kenneth Hughes, Mr. Shane Harris

2pm **HORIZONTAL VIBRATING WIRE PIEZOMETER INSTALLATION – A NEW DIRECTION IN GEOTECHNICAL EVALUATION**

» [Mr. Dan Ombalski](#), Mr. Brian Shinall, Mr. Michael Lubrecht, Mr. David Bardsley, Mr. Dave Rugh

2:30pm **Producing a High-Performance Low Carbon ASCM using Carbon Utilization Technology**

» [Mr. Dhwanil Trivedi](#), [Mr. Dante Luu](#)

3pm **Evolution in Geosynthetics Starts with Utilizing Data Technology**

» [Mr. Greg Pignataro](#), [Mr. Evan Bao](#)

1pm **CCP's and Sustainable Construction 1 - CCP's and Sustainable Construction 1**

Manz Room

Chaired by: Mr. Mark Taylor

1pm **Sustainable construction with CCPs - an update for Europe -**

» [Dr. Hans-loachim Feuerborn](#), Mr. Fabrice FAYOLA

1:30pm **Construction and Mining applications of 60% - 100 % Portland cement replaced ASH-based concrete in South Africa**

» [Mr. Cyril Attwell](#)

2pm **Coal Combustion Product Utilization in Thailand**

» [Ms. Chattrawadee Netwong](#), Ms. Nawamonwan Sirima, Mr. Chalermphol Bunsong, Ms. Umaporn Thong-Eiam

2:30pm **Life Cycle Impacts of Using Harvested Coal Ash as a Cement Replacement in Concrete**

» [Ms. Sabrina Bradshaw](#), Dr. Craig Benson, Dr. Tuncer Edil

3pm **Water Management and Construction Impacts**

» [Mrs. Christine Harris](#)



Continued from **Wednesday, 15 May**

- 1pm **Mining and Reclamation 2 - Mining and Reclamation 2**
Kruger Room
Chaired by: Mr. Randall Stremmel
- 1pm **Application of Portable Dewatering Systems in CCP Storage and Landfill Recovery**
» [Mr. John Glasscock](#)
- 1:30pm **Nature-based Solutions for CCR Closure**
» [Mr. John Watrous](#), Mr. Josh Running, Ms. Amanda Ludlow
- 2pm **CCR Landfill Reclamation for Beneficial Reuse – Lessons Learned and Practical Considerations**
» [Mr. Brian Owens](#)
- 1pm **Hydrology and Leaching 1 - Hydrology and Leaching 1**
Ramme Room
Chaired by: Lea Millet
- 1pm **Tricky Constituents – Issues with Leachate and Groundwater Constituents of Concern**
» [Mr. William Kennedy](#)
- 1:30pm **Pilot Testing Pore Water Extraction Using Positive Pressure Pumping Systems**
» [Mr. Patrick Dunne](#), [Mr. Chris Daly](#), [Mr. Paul Thomas](#)
- 2pm **Ash Pond Closure in Place Using In-Situ Soil Stabilization**
» [Mr. Jeffery Miller](#), Mr. Marc Okin, Mr. Jeff Loewe, Mr. William Haswell
- 2:30pm **Leaching Behaviors of Constituents from Coal Combustion Residuals**
» [Dr. Charles Hostetler](#), [Ms. Kacey Garber](#), [Ms. Lindsey Hawksworth](#)

- 3pm **CCR Landfill Leachate Treatment Considerations**
» [Mr. William Kennedy](#)
- 1pm **Panel Discussion - 'Leachate Ponds, To Treat or Not to Treat, From Proposed Effluent Limitation Guidelines to Technologies That Can Meet Them'**
Adams Room
Chaired by: Mr. Gerard Simon
- 1pm **Leachate Ponds, To Treat Or Not To Treat. From Proposed Effluent Limitation Guidelines To Technologies That Can Meet Them.**
» [Mr. Gerard Simon](#), [Ms. AnnieLu Dewitt](#), [Ms. Jenni Henthorn](#), [Mr. Joseph Woodley](#)
- 1pm **Groundwater and Environment 7 - Groundwater and Environment 7**
Robl Room
Chaired by: Ms. Katy Lindstrom
- 1pm **What the pHudge is Going On: Statistical and Geochemical Techniques for pH Alternative Source Demonstrations**
» [Dr. Alison O'Connor](#), [Dr. Allie Wyman-Feravich](#), [Ms. Shannon Zahuranec](#)
- 1:30pm **Navigating the Complexities of Coal Combustion Residual (CCR) Groundwater Assessment and Monitoring in Coastal Environments: A Technical Exploration**
» [Mr. Stephen Wilson](#), [Mr. Trenton Godwin](#), [Mr. Kevin Stephenson](#)
- 2pm **Aquifer Characterization Techniques to Evaluate Coal Combustion Residuals Sources**
» [Mr. Vincent Buening](#), [Mr. Wenbo Xie](#)
- 2:30pm **Hydrogeologic Considerations for Measuring Background Concentrations of CCR Constituents in Groundwater**
» [Mr. Jeffrey Frazier](#), Mr. Nathan Pavlick



Continued from **Wednesday, 15 May**

3pm **Reevaluation of the Groundwater Monitoring Paradigm - Proof of Concept Study**

» [Mr. Jacob Gruzalski](#), Mr. Benjamin Adams, Mr. Bruce Hensel

1pm **Groundwater and Environment 8 - Groundwater and Environment 8**

Goss Room

Chaired by: Dr. Rong Yu

1pm **Effectiveness of Various CCP Unit Closure Strategies**

» [Mr. Cole Mayer](#), [Dr. PJ Nolan](#), Mr. Mark Haney, Mr. Marc Okin

1:30pm **Post-closure - Responses in Groundwater Quality and Chemistry**

» [Mr. Chris Lalonde](#), Mr. Jim Finley, Mr. Paul Thomas

2pm **Supply Chain Challenges Impacting CCR Groundwater Monitoring**

» [Ms. Jennifer Gable](#), Mr. Rock Vitale, Ms. Amanda Cover

2:30pm **Understanding The Stratigraphy of Fluvial Systems and Why it is Essential to Compliance With The Legacy Rule Revisions to CCR Regulations.**

» [Mr. Colin Plank](#), Dr. Mike Shultz, Dr. James Feild, Mr. Wayne Weber

3pm **Approaches for Low-Impact Groundwater Remediation**

» [Mr. Tim Grant](#), [Mrs. Kathy Webb](#), Mrs. Tammy Jett, Mr. Bill Miller, Mr. Bruce Hensel

1pm **Landfill and Pond Issues 5 - Landfill and Pond Issues 6**

Marksberry Room

Chaired by: Mr. Andrew Colby

1pm **How Sustainable is Your Coal Ash Cover System?**

» [Mr. Marc Theisen](#)

1:30pm **The Overall Process of Beneficially Using Bottom Ash as Landfill Protective Cover, an Engineer's Perspective**

» [Mr. Ryan Doyle](#)

2pm **INTERIM PROTECTION OF CCR LANDFILL BOTTOM LINER SYSTEM – CASE STUDY**

» Mr. Jarrett Beach, [Mr. Kevin Resnik](#), Mr. Steven Turner

2:30pm **Alternate Liner Demonstration (ALD) for CCR Surface Impoundment**

» [Mr. John Seymour](#), Mr. Mike Coram, Dr. Clinton Carlson, Mr. Isaiah Vaught, Mr. Jesse Varsho

3pm **Evaluating Surface Impoundments Closure by Removal and Closure in Place Options**

» [Mr. Rick Buffalini](#)

2:30pm **Panel Discussion - 'Water Removal and Treatment Technology'**

Adams Room

Chaired by: Dr. James Feild

2:30pm **Water Removal and Treatment Technology Panel Discussion.**

» [Mr. Wayne Weber](#), [Mr. Max Swoboda](#), [Dr. Paul Schmall](#), [Mr. Andy Scherff](#), Dr. James Feild

3:30pm **Refresher Break**

Exhibit Hall C

3:45pm **Exhibit Hall Breakdown**

Exhibit Hall A, B, C

6pm **WOCA 2024 Off-Site Reception**

Grand Rapids Public Museum

Chaired by: Alyssa Barto and Brooke Pirmann and Dave Melanson



Thursday, 16 May

7am **Breakfast and Registration**
Outside of Ramme

8am **Landfill and Pond Issues 7 -
Landfill and Pond Issues 7**
Caylor Room
Chaired by: Dr. Jeffrey Kuhn

8am **Electrical Leak Location (ELL) - Case Study**
» [Mr. Andrew Colby](#)

8:30am **Chimney Drain Construction Lessons Learned**
» [Mr. Jason Thaxton](#)

9am **Comparative Analysis of Predicted vs. Observed Leachate
Generation Rates in Three Coal Combustion Residual Landfills**
» [Mr. John Trast](#), Mr. Andrew Schwoerer, Mr. Eric Kovatch

9:30am **Conventional or Bentonite-Polymer GCLs for Coal Combustion
Product Leachates?**
» [Mr. Yu Tan](#), Dr. Craig Benson, Mr. Jimmy Youngblood

8am **Geotechnical 4 -
Geotechnical 4**
McKinley Room
Chaired by: Mr. John Seymour

8am **Variable Rate Cone Penetration Testing in Hydraulically Placed Fly
Ash Deposits**
» [Mr. Andrew Fuggle](#), Mr. Longde Jin, Mr. Mark Taylor

8:30am **Modifying of expansive clay soils using alkali activated ESKOM
legacy ash**
» [Mr. Cyril Attwell](#), Ms. Phenyo Mvuyana, Dr. Kelley Reynolds-Clausen

9am **Dewatering Pilot Tests for Geotechnical Investigation**
» [Dr. Paul Schmall](#)

9:30am **Navigating through Geochemical Modeling Uncertainties Related
to Site Management and Cleanup Decisions**
» [Mr. Scott Hense](#)

8am **Project Specific Cases 3 -
Project Specific Cases 3**
Cain Room
Chaired by: Ms. Cassie Dumoulin

8am **Multi-faceted approach for CCR Pond dewatering and
depressurization-A Case Study**
» [Mr. Cleveland Tarp](#), Mr. Christopher Jones, Mr. Shawn Coughlin, Mr. Tom Holden

8:30am **Allen Fossil Restoration Project Update**
» [Mr. Danny Stephens](#), [Mr. Bradly Toth](#), [Mr. Tim Moore](#)

9am **Design, CQA, and Legacy Rule Considerations for a Multi-phased
CCP Unit Closure**
» [Mr. Brendan Purcell](#), Ms. Brittany Bradley, Mr. Jason Obermeyer

9:30am **Coal Clinker Ash Transforming Influence on Carbon Content of
Sandy Soil**
» [Ms. Agnes Dube](#), Mr. Mutsa Muhambi, Dr. Mitsuru Tsubo, Dr. Tsugiyuki Masunaga, Dr. Eiji Nishihara

8am **Cement and Concrete 4 -
Cement and Concrete 4**
Manz Room
Chaired by: Mr. Russell Stapp

8am **Compressive Behavior of Various Mortar Mixes Containing
Synthetic Lightweight Aggregate**
» [Prof. Chris Swan](#)



Continued from **Thursday, 16 May**

8:30am **Pore Solution-Based Innovative Approach for Evaluating the Effectiveness of Conventional and Alternative SCMs to Mitigate ASR**

» [Prof. Anol Mukhopadhyay](#)

9am **Long-Term Conductivity Studies of Low Permeability Concrete containing Fly Ash**

» [Dr. Kyle Stanish](#), Dr. Neal Berke, Mr. Ali Inceefe

9:30am **Nano-Modified Fly Ash-Based Geopolymer Concrete Filled CFRP Tube Composite: Mechanical Model and Life Cycle Assessment**

» [Dr. Zhipeng Li](#), Dr. Xianming Shi

8am **CCP Storage and Management 2 - CCP Storage and Management 2**

Kruger Room

Chaired by: Mr. Kory Anstead

8am **Cost-effectively Storing Bulk CCPs in Concrete Domes**

» [Mr. Zac Fillmore](#), Mr. Ted Parkinson

8:30am **Beneficial Reuse of Fly Ash Harvested from Historic Onsite Sources**

» [Mr. Todd Stong](#), Mr. Craig Schuettepelz, Mr. Ryan Frank, Mr. Shane Stockdill

9am **CCR Unit Closure 2024 – Engineering and Construction Management Straight Talk**

» [Mr. Don Fuller II](#), [Mr. Alan Casaday](#)

9:30am **Survey Techniques Used to Monitor Closed CCR Storage Facilities**

» [Mr. Max Cange](#), Mrs. Rachel Combs, Mr. Steve Shamblin, Mr. Jamey Dotson

8am **Rare Earth Elements 2**

Ramme Room

Chaired by: Mr. Claudio Arato

8am **Critical Mineral Relationships in Global Coal Ash**

» [Dr. Denise Levitan](#)

8:30am **COMPARISON OF THE CONCENTRATION OF REE & LITHIUM IN COAL ASH COLLECTED FROM IMPOUNDMENTS IN THE SOUTHEASTERN UNITED STATES**

» [Mrs. Kalyn Tew](#), Dr. Rona Donahoe

9am **Ionic liquid-based extraction and separation for recovery of rare-earth elements from coal fly ash**

» [Ms. Ting Liu](#), Prof. Ching-Hua Huang

8am **Groundwater and Environment 9 - Groundwater and Environment 9**

Adams Room

Chaired by: Mr. Johnathan Ebenhack

8am **Integrating the Geochemical Conceptual Site Model and Advanced Statistics to Evaluate Remedy Response and Position for Adaptive Management**

» [Ms. Shannon Zahuranec](#), Dr. Allie Wyman-Feravich, Mr. James Jonas, Dr. Tom Meuzelaar

8:30am **Managing Unexpected Outcomes from Remediation in Fractured Bedrock Geological Settings – How a Revision in the Conceptual Site Model Helped Resolve Unforeseen Conditions**

» [Dr. Rong Yu](#)

9am **Subsurface Hydraulic Studies and Modeling to Support Injection Treatment and Hydraulic Containment at Impacted Coal Combustion Product (CCP) Sites**

» [Dr. Ali Meyal](#), [Dr. Jim Redwine](#), Mr. Alexander Macbeth, Mr. Mike Gefell, Mr. Chuck Pippin



Continued from Thursday, 16 May	
9:30am	<p>Geochemical Assessment to Support Evaluation of Remedy Options at CCR Units » Mr. Jim Finley, Mr. Paul Thomas, Mr. John Griggs</p>
10am	<p>Coffee Break Outside of Ramme</p>
10:30am	<p>Groundwater & Environment 11 - Groundwater & Environment 11 Caylor Room Chaired by: Dr. Dimitri Vlassopoulos</p>
10:30am	<p>Subtle Geochemical Adjustments in Native Aquifer Soils – In Situ Groundwater Treatment Strategies for Cobalt at Coal Combustion Residual Sites » Mr. David Collins, Mr. Jim Finley</p>
11am	<p>From Farm to Ash: Deploying an Existing Economical Boron Solution to CCR Groundwater » Dr. Ben Amos, Dr. Hariprasad Parthasarathy, Mr. Paul Wegner, Mr. Peter Schratz</p>
11:30am	<p>EPRI Research on Innovative Techniques for Alternative Source Demonstrations » Mr. Bruce Hensel, Dr. Charles Cravotta III, Mr. Michael Pribil, Dr. Christopher Bagwell, Mr. R. Jeffrey Davis, Mr. Jared Carte, Mr. Danny Rutherford, Dr. Frederick Day-Lewis, Ms. Melanie Edwards</p>
10:30am	<p>Landfill and Pond Issues 8 - Landfill and Pond Issues 8 McKinley Room Chaired by: Mr. McKhenzy Welch</p>
10:30am	<p>Coal Ash Landfill Leachate Systems – Design and Treatment » Mrs. Christine Harris, Mr. Rob Orlando</p>
11am	<p>SINGLE-ENDED (BLIND) DIRECTIONAL WELLS FOR ASH BASIN DEWATERING » Mr. David Bardsley, Mr. Dan Ombalski, Mr. Brian Shinall, Mr. Michael Thornbrue</p>
10:30am	<p>Beneficiation and Processing 5 - Beneficiation and Processing 5 Cain Room Chaired by: Ms. Sheryl Smith</p>
10:30am	<p>Harvesting and Beneficial Use: Voluntary, Consensus Standard Developed by ASTM E50.03 » Mr. Benjamin Gallagher, Ms. Abigail Calmes, Mr. William Petruzzi</p>
11am	<p>Using Interim Storage to Better Align Harvesting and Beneficiation Timelines » Mr. Ethan Bond</p>
10:30am	<p>Emerging Technologies 5 - Emerging Technologies 5 Manz Room Chaired by: Mr. Travis Clark</p>
10:30am	<p>Exploring Non-invasive High-Resolution Geophysical Site Characterization Methods for Delineation of Coal Ash » Mr. Colin Plank, Dr. Mike Shultz, Dr. James Feild</p>
11am	<p>Total Ash and Brine Water Waste Utilisation » Mr. Maroun Rahme</p>
10:30am	<p>Project Specific Cases 4 - Project Specific Cases 4 Kruger Room Chaired by: Mr. Cleveland Tarp</p>
10:30am	<p>Leveraging Data to Build an Effective Quality Assurance Program » Ms. DEANNA AUNGST, Ms. Danielle Coles</p>



Continued from **Thursday, 16 May**

- | | |
|---------|---|
| 11am | EPA's Updated Toxicity Criteria for Arsenic: Implications on Coal Ash Sites
» Mr. Todd Bernhardt , Mr. Jay Peters |
| 11:30am | "Strategic Workforce Solutions in the Coal Ash Industry: Navigating Talent Challenges for Consultants, Civil Companies, and Utilities"
» Mr. Stuart Keeter |
| 10:30am | Groundwater and Environment 10
<i>Ramme Room</i>
Chaired by: Mrs. Arica DiTullio |
| 10:30am | Data Quality Assessment of a Long Running QA Program - The Domino Effect of a Pandemic
» Ms. Amanda Cover , Mr. Rock Vitale, Ms. Jennifer Gable, Ms. Veronica Barredo |
| 11am | High Dimensional Data Analysis and Visualization to Demonstrate Compliance
» Ms. Alex Eklund |
| 11:30am | Unlocking Insights: Advanced Statistical Methods for Groundwater Geochemical Fingerprinting at Coal Combustion Residuals Sites
» Dr. Ali Akbari , Ms. Allison Kreinberg |