

Wednesday, November 4, 2020

- 11:00 AM Carbon Storage Program Remarks**
Darin Damiani, DOE FE, Carbon Storage
- 11:05 AM Carbon Storage Technology Manager Remarks**
Mark McKoy, NETL
- 11:10 AM Welcome, Meeting Objectives, NRAP Background and Accomplishment**
Bob Dilmore, NETL

New Developments in NRAP Tools

Moderator: TBD

- 11:30 AM NRAP - Open-IAM:**
- Core Functionality for Containment and Leakage Risk
 - Fit-for-purpose functionality
 - Commercial GUI development initiative
- Veronika Vasylykivska, NETL, Dylan Harp, LANL, Diana Bacon, PNNL, Mark Brandyberry, Illinois Rocstar
- 11:45 AM Tools for Induced Seismicity Management**
- STSF
 - RiskCat
- Josh White, LLNL, Corinne Layland-Bachmann, LBNL
- 12:00 PM Monitoring Design and Optimization Tools**
- DREAM 2.0 (and 3.0)
 - Microseismic Monitoring Array Design Optimization
- Catherine Yonkofski, PNNL, Lianjie Huang, LANL, Erika Gasperikova, LBNL
- 12:15 PM Other Characterization and Forecasting Tools**
- SOSAT
 - Seal Leakage
 - Fault Leakage ROM
- Jeff Burghardt, PNNL, Ernest Lindner, NETL, Bailian Chen, LANL
- 12:30 PM Accessing NRAP Tools**
Chris Wyatt, NETL, Terri DeMicco, NETL, nrap@netl.doe.gov

Recommended Practices for Risk-Based Decision Support

Moderator: TBD

12:35 PM Conceptualization/Framework for Recommended Practices

Burt Thomas, NETL

12:40 PM Containment Assurance and Leakage Risk

Burt Thomas, NETL, Brandon Schwartz, PSU, Rajesh Pawar, LANL, Diana Bacon, PNNL, Greg Lackey, NETL

1:00 PM Recommended Practices for Induced Seismicity

Dennise Templeton, LLNL, Corinne Layland-Bachmann, LBNL

1:20 PM Moderated Discussion: Feedback on Recommended Practices

Moderator: Brandon Schwartz (PSU)

1:35 PM BREAK

Key Messages for GCS Derived from NRAP Research

Moderator: TBD

2:15 PM Context for Large-Scale CCUS Deployment

Mark McKoy, NETL

2:25 PM Establishing the Basis for Key Insights on Leakage Probability

Chris Brown, PNNL and Rajesh Pawar, LANL

2:40 PM Establishing the Basis for Key Insights on Induced Seismicity Risk Management

Josh White, LLNL and Dennise Templeton, LLNL

2:55 PM Establishing the Basis for Key Insights on Potential Leakage Impacts to Groundwater

Diana Bacon, PNNL and Megan Smith, LLNL

3:10 PM Establishing the Basis for Key Insights on Risk-Based Monitoring Design

Erika Gasperikova (LBNL) and Bob Dilmore (NETL)

3:25 PM Moderated Discussion: Feedback on Key Insights

Moderator: Grant Bromhal (NETL)

4:00 PM ADJOURN

Thursday, November 5, 2020

11:00 AM Welcome Back / Day 1 Recap

11:05 AM Advertisement for Afternoon Technical Session (Session 4)
Series of 90 second presentations

Testing and Application of NRAP Tools and Methods
Moderator: TBD

11:20 AM Overview of NRAP Tools and Recommended Practices Applications (Application Catalog)
Diana Bacon, PNNL

11:30 AM Example Application: FutureGen 2

- Characterization
- Risk-Based AOR
- Monitoring Design
- Supporting Post-Injection Closure Decisions
- Containment Assurance and Accounting

Diana Bacon, PNNL

11:55 AM Data to drive NRAP tools: From Kimberlina, FutureGen and beyond, tools to optimize data discovery and modeling uses
Paige Morkner, NETL

12:05 PM Exploring Tie-in between NRAP approaches and Conventional Risk Assessment Approaches
Chris Brown, PNNL

12:15 PM CarbonSAFE Experience with NRAP Tools and Methods
TBD

12:35 PM Workshop Concept for GWPC UIC meeting
Bob Dilmore (NETL)

12:45 PM Moderated Discussion: How can NRAP better engage with CCUS demonstration and deployment efforts?
Moderator: Mark McKoy (NETL)

1:00 PM Closing Remarks



NRAP TECHNICAL MEETING

Virtual Agenda
November 4-5, 2020

Technical Presentations and Discussion (Separate zoom rooms for each)

Moderator: TBD

(NOTE: Presentation set and titles are preliminary and subject to change)

2:00 PM **Modeling Dynamic Risk Using Ensemble Smoother – MDA**
Bailian Chen, LANL

Insights from State-Scale Well Integrity Data Analysis
Greg Lackey, NETL

CO₂ Plume Location by Deep Learning Inversion of Gravity Data
Xianjin Yang, LLNL

CO₂ Plume Evolution in a Depleted Natural Gas Reservoir: Reducing Uncertainty in Conformance Over Time
Christine Doughty, LBNL

An Application of the NRAP State-of-Stress Assessment Tool to the FutrueGen 2.0 Site
Delphine Appriou, PNNL

Seismic Forecasting and PISC: Insights for IS Risk Management
Kayla Kroll, LLNL

Channelized CO₂ flow in the Hierarchical Fluvial Reservoir at Cranfield, Mississippi
Quanlin Zhou, LBNL

5:00 PM **ADJOURN**

