

HLWYM HEmails

From: John Bradbury
Sent: Monday, March 03, 2008 3:52 PM
To: LSNReviews
Subject: Fwd: FW: colloid questions for DOE
Attachments: TEXT.htm; Remaing Colloids Topics App 7.wpd

>>> John Bradbury 08/08/2007 12:26 PM >>>

Here's the current list of colloid questions. Should this be sent to DOE for this afternoon's telecon or do we talk it through?

John

>>> Paul Bertetti <pbertetti@cnwra.swri.edu> 08/08/2007 12:17 PM >>>

-----Original Message-----

From: Scott Painter [mailto:spainter@cnwra.swri.edu]
Sent: Wednesday, August 08, 2007 11:14 AM
To: 'Paul Bertetti'; Jude McMurry; 'David Pickett'
Subject: FW: colloid questions for DOE

Ok, this time with the attachment. -----Original Message-----

From: Scott Painter [mailto:spainter@cnwra.swri.edu]
Sent: Tuesday, August 07, 2007 2:59 PM
To: 'David Pickett'; Jude McMurry; 'Paul Bertetti'
Subject: colloid questions for DOE I had a look at our original list of colloid questions and removed the EBS ones, which were mostly addressed last month. Here is the revised list of questions. Please add to or refine as needed. Scott

Hearing Identifier: HLW_YuccaMountain_Hold_EX
Email Number: 282

Mail Envelope Properties (5eddf4d2-574f-47ff-9356-eedeab47088a)

Subject: Fwd: FW: colloid questions for DOE
Sent Date: 3/3/2008 3:52:00 PM
Received Date: 3/3/2008 3:53:15 PM
From: John Bradbury

Created By: John.Bradbury@nrc.gov

Recipients:
"LSNReviews" <LSN.Reviews@nrc.gov>
Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	942	3/3/2008 3:53:15 PM
TEXT.htm	4693	
Remaing Colloids Topics App 7.wpd		9334

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

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PREDECISIONAL–PLANNING ONLY–NOT FOR DISTRIBUTION

Proposed topics for DOE/NRC colloids Appendix 7 meeting
August 2007

- General description and support for colloid-associated transport model abstractions (TSPA “walk-through”). Highlight changes from descriptions in publicly available documents.
- Information on relative importance of colloid-related parameters and assumptions in the abstraction model. What are the key colloid processes/models affecting the performance of the natural barriers?
- Typical magnitude of the unretarded colloid fraction and basis for that model.
- Describe basis for colloid retardation factor distributions. Specifically, what is basis for truncated at 6 (tuff) or 8 (alluvium)?
- Does reversible sorption to colloids consistently result in greater radionuclide mobility compared with a non-colloidal model?
- Basis for loading of radionuclides onto colloids (comparison of loadings on different types). For example, DOE uses a single-rate kinetic model for irreversible attachment of Pu and Am to colloids. How is uncertainty associated with that assumption propagated in the TSPA?
- Can colloid transport be affected by UZ flow transients?
- What fraction of colloids with irreversibly associated radionuclides are permanently immobilized due to physical straining? What is fate of the associated radionuclides and daughter products? What is basis for neglecting slow desorption