

NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON NUCLEAR WASTE

Notice of Meeting

The Advisory Committee on Nuclear Waste (ACNW) will hold its 172<sup>nd</sup> meeting on July 17-20, 2006, Room T-2B3, 11545 Rockville Pike, Rockville, Maryland.

The schedule for this meeting is as follows:

**Monday, July 17, 2006**

8:30 A.M. - 8:35 A.M.: Opening Statement (Open) - The ACNW Chairman will make opening remarks regarding the conduct of the meeting.

8:35 A.M. - 9:30 A.M.: U.S. Department of Energy (DOE) Briefing on Exploratory Drilling of Aeromagnetic Anomalies in the Yucca Mountain Region (Open) - A DOE representative will present an evaluation of the results of this drilling which has been done in support of the ongoing update of the 1996 expert elicitation on Probabilistic Volcanic Hazard Analysis.

9:45 - 11:45 A.M.: NRC Staff Review of Revised International Commission on Radiological Protection (ICRP) Recommendations (Open) - Briefing by and discussions with NRC staff representatives regarding their review of the June 5, 2006, ICRP report titled "Draft Recommendations of the International Commission on Radiological Protection."

2:00 P.M. - 3:00 P.M.: Exchange of Information between NMSS Management and ACNW Members (Open) - NMSS management will brief the Committee about the upcoming office reorganization. ACNW staff will brief NMSS management about the revised action plan and how it reflects recent Staff Requirements Memoranda (SRMs).

3:00 P.M. - 5:00 P.M.: Discussion of Draft ACNW Letter Reports (Open) - The Committee will discuss proposed ACNW letters.

**Tuesday, July 18, 2006**

**ACNW WORKING GROUP MEETING (WGM) ON PREDICTING THE PERFORMANCE  
OF CEMENTITIOUS BARRIERS FOR NEAR SURFACE DISPOSAL (OPEN)**

8:30 A.M. - 8:45 A.M.: Opening Remarks and Introductions - The ACNW Chairman,

Dr. Michael Ryan will make opening remarks regarding the conduct of today's sessions.

ACNW Vice Chairman Allen Croff will provide an overview of the WGM, including the meeting purpose and scope, and introduce invited subject matter experts.

**SESSION I: WHERE ARE CEMENTITIOUS MATERIALS USED AND HOW ARE  
THEY IMPORTANT TO PERFORMANCE ASSESSMENT?**

8:45 A.M. - 9:15 A.M.: Use of Cementitious Materials to Dispose of Wastes Determined to be  
Non-HLW (Dr. Christine A. Langton Savannah River National Lab, SRNL) - Dr. Langton will  
discuss cementitious waste forms and cement types and environments.

9:15 A.M. - 9:45 A.M.: What Functions do Cementitious Materials Perform that are Important to  
Assessing System Performance (i.e., What do we Want Grouts to do?) (Professor David  
Kosson, Vanderbilt University) - Professor Kosson will discuss the functions of cementitious  
materials; e.g., control water infiltration, control Eh of infiltrating water, and prevent subsidence.

9:45 A.M. - 10:15 A.M.: Panel Discussion (All) - Vice Chairman Croff will moderate a panel  
discussion of Session I topics by the Committee members and invited subject matter experts.

**SESSION II: HOW CAN GROUTS FAIL AND WHAT CAN CAUSE GROUT  
FAILURE?**

10:30 A.M. - 11:15 A.M.: Failure Processes and Mechanisms (Dr. Rachel Detwiler, Braun  
Intertec Corporation) - Dr. Detwiler will discuss failure processes and mechanisms of  
cementitious materials.

11:15 A.M. - 12:00 P.M.: Causes of Failure of Cementitious Materials (Professor Barry Sheetz, Pennsylvania State University) - Professor Sheetz will discuss specific causes that are important to failure of cementitious materials.

12:00 P.M. - 12:30 P.M.: Panel Discussion - Vice Chairman Croff will moderate a panel discussion of Session II topics by the Committee members and invited subject matter experts.

**SESSION III: STATE-OF-THE-ART IN LONG-TERM PREDICTION OF CEMENTITIOUS MATERIAL PERFORMANCE**

1:15 P.M. - 2:15 P.M.: Current Capability to Predict the Conditions and Processes Important to Cement Failure (Professor Fred Glasser, Aberdeen University, UK) - Professor Glasser will discuss current capability to predict the conditions and processes important to cement failure, and the affect of failures on cement performance, based on modern experience, experiment, and observation.

2:15 P.M. - 2:45 P.M.: Current Capability to Predict the Conditions and Processes Important to Cement Failure (Dr. Leslie Dole, Oak Ridge National Lab, ORNL) - Dr. Dole will discuss current capability to predict the conditions and processes important to cement failure, and the affect of failures on cement performance, based on archeological evidence obtained from ancient cementitious materials and natural analogues.

3:00 P.M. - 4:00 P.M.: Current Capability to Predict the Conditions and Processes Important to Cement Failure (Dr. Ed Garboczi, National Institute of Standards and Technology, NIST) - Dr. Garboczi will discuss current capability to predict the conditions and processes important to cement failure, and the affect of failures on cement performance, based on computation.

4:00 P.M. - 4:30 P.M.: Panel Discussion - Vice Chairman Croff will moderate a panel discussion of Session III topics by the Committee members and invited subject matter experts.

#### **SESSION IV: WRAP-UP**

4:30 P.M. - 5:00 P.M.: Comprehensive Roundtable Discussion - Vice Chairman Croff will moderate a comprehensive roundtable discussion of the WGM topics by the Committee members and invited subject matter experts.

5:00 P.M. - 5:30 P.M.: Path Forward (Committee Members and ACNW Staff) - Vice Chairman Croff will moderate a discussion of the path forward on cementitious materials by the Committee members and ACNW staff.

#### **Wednesday, July 19, 2006**

8:30 A.M. - 8:35 A.M.: Opening Remarks by the ACNW Chairman (Open) - The Chairman will make opening remarks regarding the conduct of today's sessions.

8:35 A.M. - 10:00 A.M.: NRC Draft Rule/Guidance on Preventing Legacy Sites (Open) - NMSS staff will present preliminary plans for development of requirements and guidance for the scheduled rulemaking on prevention of legacy sites.

10:15 A.M. - 12:15 A.M.: Expanded Potential NRC Use of the Center for Nuclear Waste Regulatory Analysis (CNWRA) Expertise (Closed) - The Committee will meet with representatives of the Offices of Nuclear Material Safety and Safeguards (NMSS), Nuclear Regulatory Research (RES), and Nuclear Reactor Regulation (NRR) and discuss these Offices' assessments of potential expanded use of the CNWRA expertise.

**NOTE:** This portion of the meeting will be closed pursuant 5 U.S.C. 552b ( c) (2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of the Agency, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.

1:00 P.M. - 5:30 P.M.: Discussion of Potential ACNW Letter Reports (Open) - The Committee will discuss proposed ACNW letters.

**Thursday, July 20, 2006**

8:00 A.M. - 8:05 A.M.: Opening Remarks by the ACNW Chairman (Open) - The Chairman will make opening remarks regarding the conduct of today's sessions.

8:05 A.M. - 10:15 A.M.: U.S. Department of Energy (DOE) Briefing on Advanced Fuel Cycle Initiative (AFCI) (Open) - DOE representatives and supporting national laboratories will brief the Committee on AFCI processes and technologies. DOE's AFCI mission is to develop proliferation-resistant spent fuel treatment and transmutation technologies to enable transition from once-through fuel cycle to a closed fuel cycle.

10:30 A.M. - 12:30 P.M.: Standard Review Plan for Activities Related to U.S. Department of Energy Waste Determinations (Open) - NMSS staff will address specific topics, comments, and questions identified by the Committee in their review of the draft "Standard Review Plan for Activities Related to U.S. Department of Energy Waste Determinations" (NUREG-1854).

1:30 P.M. - 3:00 P.M.: RES/NMSS Dry Cask Storage Probabilistic Risk Assessment (PRA) Study (Open) - RES and NMSS representatives will present their draft final report "A Pilot Probabilistic Risk Assessment of a Dry Cask Storage System at a Nuclear Plant," as well as address its future applicability not only for other storage systems but as guidance for assessing risk to the public and identifying dominant contributors to risk.

3:15 P.M. - 4:45 P.M.: Electric Power Research Institute (EPRI) Dry Cask Storage Probabilistic Risk Assessment Study (Open) - An EPRI representative will address the Committee with the methodology, results, conclusions and proposed applicability of their study: EPRI Report #1009691, "Probabilistic Risk Assessment (PRA) of Bolted Storage Casks."

4:45 P.M. - 5:30 P.M.: Discussion of Potential ACNW Letter Reports (Open) - The Committee will continued discussion of proposed ACNW reports.

5:30 P.M. - 6:00 P.M.: Miscellaneous (Open) - The Committee will discuss matters related to the conduct of ACNW activities and specific issues that were not completed during previous meetings, as time and availability of information permit. Discussions may include future Committee Meetings.

Procedures for the conduct of and participation in ACNW meetings were published in the Federal Register on October 11, 2005 (70 FR 59081). In accordance with these procedures, oral or written statements may be presented by members of the public. Electronic recordings will be permitted only during those portions of the meeting that are open to the public. Persons desiring to make oral statements should notify Mr. Antonio F. Dias (Telephone 301-415-6805), between 8:15 a.m. and 5:00 p.m. ET, as far in advance as practicable so that appropriate arrangements can be made to schedule the necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during this meeting will be limited to selected portions of the meeting as determined by the ACNW Chairman. Information regarding the time to be set aside for taking pictures may be obtained by contacting the ACNW office prior to the meeting. In view of the possibility that the schedule for ACNW meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should notify Mr. Dias as to their particular needs.

In accordance with Subsection 10(d) P. L. 92-463, I have determined that it is necessary to close portions of this meeting noted above to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACNW, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted, therefore can be obtained by contacting Mr. Dias.

ACNW meeting agenda, meeting transcripts, and letter reports are available through the NRC Public Document Room (PDR) at [pdr@nrc.gov](mailto:pdr@nrc.gov), or by calling the PDR at 1-800-397-4209, or from the Publicly Available Records System component of NRC's document system (ADAMS) which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> or <http://www.nrc.gov/reading-rm/doc-collections/> (ACRS & ACNW Mtg schedules/agendas).

Video Teleconferencing service is available for observing open sessions of ACNW meetings. Those wishing to use this service for observing ACNW meetings should contact Mr. Theron Brown, ACNW Audiovisual Technician (301-415-8066), between 7:30 a.m. and 3:45 p.m. ET, at least 10 days before the meeting to ensure the availability of this service. Individuals or organizations requesting this service will be responsible for telephone line charges and for providing the equipment and facilities that they use to establish the video teleconferencing link. The availability of video teleconferencing services is not guaranteed.

07/03/06  
Date

/RA/  
Annette L. Vietti-Cook  
Secretary of the Commission