

### **Members Present**

Donald Spellman, *NFSC Chair & SB Vice Chair, ORNL*  
R. Michael Ruby, *NFSC Vice Chair, Constellation Energy*  
Patricia Schroeder, *Standards Administrator, American Nuclear Society*  
Jeffery R. Brault, *Savannah River National Laboratory*  
Michael T. Cross, *Westinghouse Electric Company*  
Timothy Dennis, *Individual*  
Shami Dua, *AECL/CSA, Canadian Liaison*  
Donald R. Eggett, *AES Engineering*  
Richard W. Englehart, *U.S. Department of Energy*  
Peter S. Hastings, *Duke Energy*  
N. Prasad Kadambi, *U.S. Nuclear Regulatory Commission*  
Malcolm LaBar, *General Atomic*  
Evan Lloyd, *Exitech Corporation*  
Sheila Lott, *Los Alamos National Laboratory*  
Jesse E. Love, *Bechtel Power Corporation*  
Carl Mazzola, *Shaw Environmental & Infrastructure, Inc.*  
Robert McFetridge, *Westinghouse Electric Company, LLC*  
Charles H. Moseley, Jr., *BWXT Y-12*  
Norman Prillaman, *Framatome/AREVA*  
— William B. Reuland, *Individual (Previous Affiliation: EPRI)*  
Steven Stamm, *Stone & Webster, Inc.*  
John D. Stevenson, *J.D. Stevenson Consultants*  
C. D. (Tom) Thomas, Jr., *Individual (Previous affiliation: Yankee Atomic Company)*  
J. Andy Wehrenberg, *Southern Nuclear Operating Company*

### **Members Absent**

William H. Bell, *South Carolina Electric & Gas Company*  
Charles K. Brown, *Southern Nuclear Operating Company*  
Robert H. Bryan, Jr., *Tennessee Valley Authority*  
Richard Hall, *Exelon Generation Company, LLC.*  
Rick A. Hill, *ERIN Engineering & Research, Inc.*  
Eric Loewen, *Idaho National Engineering & Environmental Laboratory*  
Donald M. Reynerson, *The Phoenix Index, Inc.*  
James C. Saldarini, *Tetra Tech EC, Inc.*  
Robert E. Scott, *Scott Enterprises*  
Michael J. Wright, *Grand Gulf Nuclear Station, Entergy Operations, Inc.*

### **Guests**

Neil Brown, *Lawrence Livermore National Laboratory*  
F. J. (Butch) Colby, *L3 Communications MAPPS*  
Daniel Hang, *Individual (Previous affiliation: University of Illinois-Urbana)*  
Brad Harvey, *U.S. Nuclear Regulatory Commission*  
James F. Mallay, *Individual (Previous affiliation: Framatome)*  
Stanley Marsh, *Southern California Edison Company*

## **1. Welcome and Call to Order**

Don Spellman called the meeting to order and introductions were made.

Jim Mallay announced that Don Spellman would remain NFSC chair as Prasad Kadambi agreed to step up to Standards Board Chair starting June 2005. Mallay also informed the Committee he decided to leave Framatome.

## **2. Approve Agenda**

The agenda was approved without dissent.

## **3. Standards Discussion Meeting**

### **A. ANS-3.11, "Determining Meteorological Information at Nuclear Facilities"**

Stan Marsh and Carl Mazzola, co-chairs of ANS-3.11 working group, provided the Committee an update on the revision. Negative votes from the NFSC ballot are being resolved. The working group is trying to keep to the original target of having the draft completed by the end of 2005. Mazzola is writing a white paper to describe process of reviewing/revising standards.

### **B. ANS-57.2/ANS-57.3**

Jim Saldarini was not able to attend and provide a report on ANS-57.2, "Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants," and ANS-57.3, "Design Requirements for New Fuel Storage Facilities at LWR Plants."

### **C. ANS-3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants"**

Chuck Moseley, vice chair of ANS-3.2, reminded the Committee that the revision was put on hold to incorporate the new 50.69. A revised draft was sent to NFSC for ballot the end of May. The NRC has agreed to review the approved standard for endorsement once utilities adopt.

### **D. ANS-3.5, "Nuclear Power Plant Simulators for Use in Operator Training and Examination"**

Tim Dennis and Butch Colby, ANS-3.5 working group chair and editor respectively, provided the Committee a very detailed status report of the changes to the current revision of ANS-3.5. Colby reported the working group has significant expertise from several sectors of the industry and has held many meetings. Although there have been significant changes made during this revision, care has been taken to maintain the scope. See Attachment A for complete details.

### **E. ANS-26 Subcommittee Project Plan**

Don Spellman asked Evan Lloyd to take the lead in getting the reaffirmations started on the 3.8 series standards. Malcolm LaBar suggested to take into consideration new plants.

Action Item 6/05-01: Evan Lloyd to review ANS-3.8 series standards and provide reaffirmation statement to Pat Schroeder.
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Carl Mazzola asked if there might be an opportunity for support from DHS.

Action Item 6/05-02: Don Spellman to look into DHS funding for 3.8 series standards revisions with Karen McCarthy.

F. ANS-2.26, 2.27, 2.29 etc. Seismic Issues

ANSI/ANS-2.26-2004, "Categorizations of Nuclear Facility Structures, Systems, and Components for Seismic Design," was recently published. Carl Mazzola provided an update on the two companion standards: ANS-2.27-200x, "Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments," and ANS-2.29-200x, "Probabilistic Seismic Hazard Analysis." ANS-2.27 expects a draft to ANS-25 late summer while ANS-2.29 is attempting to complete a draft for working group review by end of June 2005.

Action Item 6/05-03: Chuck Moseley to send Carl Mazzola new NRC Reg. Guide on Structures, Systems, and Components.

John Stevenson suggested that we be clear about which facilities these standards apply to, those regulated by DOE or NRC, and suggested that this information be included in the PINS.

**4. Approval of November 15, 2004, Meeting Minutes**

The November 2004 minutes were approved with one change to the completion date of Action Item 11/04-01.

**5. Management Reports**

A. Executive Committee/Chair Report

Don Spellman explained that he has been too busy to schedule an ExC teleconference but plans to hold one soon.

B. Secretary Report

Pat Schroeder provided the Committee the following reports – Attachment B:

- 1) Project Activity Report
- 2) Status of Standards Report
- 3) Delinquent Standards Report
- 4) Maintenance Hot List

Schroeder informed the Committee that the 2004 Standards Committee Report of Activities was completed. Once the Standards Board had an opportunity to review the Report, a copy would be available through the web. The information provided for the Report will be incorporated into the database to make the information more current. Schroeder anticipated a mailing would be necessary to confirm status of many of the individuals in the database to determine if additional working group placement was needed.

Schroeder reported that the ANS IT Department has not been able to start on the new on-line volunteer database, but it was the next large project scheduled after the revision to the ANS Career Center.

Schroeder informed the Committee of an open clarification on ANSI/ANS-3.1-1983;R1999, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants." The inquiry

was received early December 2004, but there has been difficulty getting a response from the working group chair. Several NFSC members suggested Tim Dennis consider replacing this working group chair and look to a working group member to assist in this clarification.

Action Item 6/05-4: Pat Schroeder to provide Tim Dennis background information on ANS-3.1 to identify working group members able to assist with clarification.

#### C. Standards Coordinator (Special Committee on Volunteers)

Mike Ruby informed the Committee that volunteer reports were recently distributed to subcommittee chairs. While many individuals were placed, several others are still in need of placement. Ruby expressed this thought that the on-line volunteer database will be a big advantage.

Ruby acknowledged he needs to work with Jeff Brault to form a new working group for the revision of ANSI/ANS-57.1-1992;R1998, "Design Requirements for Light Water Reactor Fuel Handling Systems."

Action Item 6/05-5: Mike Ruby to work with Jeff Brault to form new working group to revise ANS-57.1.

Ruby discussed interest in reinvigorating historical standard ANS-4.5, "Criteria for Accident Monitoring Functions in Light-Water-Cooled Reactors." He talked to his company and plans to create a PINS for NFSC approval. (Open Action Item 11/04-12 from the November 2004 meeting address this issue.)

## 6. Subcommittee Reports

### A. ANS-21 Nuclear Power Plant Design Criteria & Operations

Tim Dennis reported that he lost Romona Morris, the working group chair for ANS-3.4, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants." Because of a lack of response, Dennis noted he is considering replacing the working group chair of ANS-3.1, "Selection, Qualification and Training of Personnel for Nuclear Power Plants."

The Committee discussed revising, ANSI/ANS-58.3-1998, "Physical Protection for Nuclear Safety-Related Systems and Components." Working group chair, John Stevenson, explained he has not been able to identify working group members to take on a revision. Don Spellman thought he'd be able to find a few individuals.

Action Item 6/05-06: Don Spellman to find working group members for ANS-58.3.

### B. ANS-22, Nuclear Power System Level Design

As Rick Hill was unable to make the meeting, no report was provided.

### C. ANS-23, Decommissioning and Site Remediation

Don Eggett reported comments were being resolved from the NFSC revised PINS vote of ANS-41.5, "Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation." Tom Thomas expressed his concern that the scope listed on the PINS form was slightly different from the one listed in the draft. Pat Schroeder

explained that the scope may have had to be shortened to accommodate the 500 character maximum for submission to ANSI. This is acceptable as long as the difference is editorial. Eggett said the DD&R Division has not been supportive over the 41 series standards and that NEI has their own documents. Carl Mazzola suggested to contact Robert Gehrke to help with the 41 series standards or at least provide some history. Eggett additionally reported there had been no progress on the draft of ANS-3.12.1, "Decommissioning of Nuclear Production and Utilization Facilities: Defueled Security Plan," but the NFSC should see a draft of ANS-3.12.3, "Decommissioning of Nuclear Production and Utilization Facilities: Operator Training," by the next meeting.

#### D. ANS-24, Analysis

Andy Wehrenberg reported work is continuing on ANS-5.4, "Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel." ANS-5.10, "Airborne Release Fractions at Non-Reactor Nuclear Facilities," working group is currently only one person and is just under three years from reaching its tenth anniversary.

Action Item 6/05-07: Andy Wehrenberg to review ANS-5.10 and provide Pat Schroeder with reaffirmation statement.

#### E. ANS-25, Siting – See Attachment C (ANS-25 Status Report)

Carl Mazzola introduced Daniel Hang. Hang recently agreed to chair ANS-40.21, "Siting and Operation of Commercial Burial Grounds." Mazzola asked the Committee for candidates to build the working group. Neil Brown suggested Alan Pasternak.

Action Item 6/05-08: NFSC to send names of potential working group members to Carl Mazzola for ANS-40.21.

Mazzola briefly reviewed the status of all standards and projects under his subcommittee. Don Spellman felt it would be useful for ANS-2.2, "Earthquake Instrumentation Criteria for Nuclear Power Plants," to apply to nuclear facilities and asked Mazzola to contact the working group chair to determine possibility.

Action Item 6/05-09: Carl Mazzola to contact ANS-2.2 working group chair to discuss the possibility of including nuclear facilities to the standard.

John Stevenson, working group chair for ANS-2.3, "Determining Tornado and Other Extreme Wind Characteristics at Nuclear Facility Sites," reported that he invited past working group members to the group. They are anticipating a draft to be ready early 2006. Dick Englehart offered to find a DOE representative for this project.

Action Item 6/05-10: Dick Englehart to find DOE representative to work on ANS-2.3.

Mazzola reported he may need to find a replacement for the chair of ANS-2.30, "Assessing Capability for Surface Faulting at Nuclear Materials Facilities," because he has not been active.

Action Item 6/05-11: Pat Schroeder to send Carl Mazzola background information on ANS-2.30 (PINS/correspondence).

The Committee discussed several titles of standards regarding their applicability to nuclear facilities.

Action Item 6/05-12: Bill Reuland to draft a procedure for standards scope and objectives statements regarding power plants vs. DOE facilities vs. both in an effort to identify which standards should apply to all facilities.

#### F. ANS-26, Emergency Planning

See 3E ANS-26 Emergency Planning discussion.

#### G. ANS-27, Fuel Cycle and Waste Management

Jeffery Brault provided the Committee an update on his subcommittee. He has people in mind to work on the revision of historical standard, ANS-40.35-1991, "Volume Reduction of Low-Level Radioactive Waste or Mixed Waste," but does not have anyone currently to work on revising historical standard, ANS-40.37-1993, "Mobile Radioactive Waste Processing Systems." Brault reported he will work with Mike Ruby to form a new working group to revise ANSI/ANS-57.1-1992;R1998, "Design Requirements for Light Water Reactor Fuel Handling Systems." Brault will work with the Fuel Cycle Group on ANSI/ANS-57.9-1992;R2000, "Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)," and ANS-57.10-1996, "Design Criteria for Consolidation of LWR Spent Fuel ." Directions were given to distribute ANSI/ANS-57.5-1996, "Light Water Reactors Fuel Assembly Mechanical Design and Evaluation," and ANSI/ANS-57.10-1996, "Design Criteria for Consolidation of LWR Spent Fuel, " to be reviewed for reaffirmation.

Action Item 6/05-13: Pat Schroeder to send electronic copy of ANS-57.5 to Jeff Brault, Mike Cross, Norm Prillaman, and Bob McFetridge for review in consideration for reaffirmation.

Action Item 6/05-14: Pat Schroeder to send electronic copy of ANS-57.10 to Jeff Brault, Peter Hastings, Rick Hill, Gon Maxwell for review and consideration for reaffirmation.

Action Item 6/05-15: Pat Schroeder to check reaffirmation statement regarding outdated standards that are referenced.

#### H. ANS-28, Gas Cooled Reactor Standards

Malcolm LaBar reported that his relatively new subcommittee is involved with one standard ANS-53.1, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants." The PINS for this project was approved by the NFSC, and comments received from the Standards Board were being resolved. Don Spellmen mentioned the group has received funding through the DOE. LaBar explained the need for sub-groups of 2 – 3 individuals to write specific sections. The standard will be performance-based and risk-informed.

### 7. Action Items

Old action items were reviewed. See Attachment D.

Action Item 6/05-16: Pat Schroeder to put Jim Mallay's April 2005 Presentation at ORNL on Standards Resources page of ANS Web site.

Action Item 6/05-17: Don Spellman to locate list of American National Standards used by U.S. for Shami Dua by November 2005.

Action Item 6/05-18: Carl Mazzola to provide Pat Schroeder PINS for ANS-2.6, ANS-2.8, ANS-2.25, ANS-2.30, and ANS-40.21 by November 2005.

## **8. Liaison Reports**

### **A. ASME**

John Stevenson reported that in the not to distant future we will see risk informed design by ASME. All standards will be written with English units and metric units in parentheses. Don Spellman added that the DOE does the reverse.

### **B. BNC&S**

John Stevenson informed the Committee he is no longer a member of BNC&S.

### **C. NQA**

Chuck Moseley reported that NQA1 2004 will be published in January 2005. ASME adheres to a schedule of publishing a revised standard every three years with an addendum issued every year if necessary. Additional information is found in Attachment E.

### **D. IEEE NPEC**

Don Spellman had nothing new to report on IEEE NPEC.

### **E. ANSI**

Pat Schroeder reported there were no new changes from ANSI that affect the NFSC, but mentioned we were informed blanket extensions would not be accepted. A specific reason will need to be provided for all extension requests submitted.

### **F. TC85/SC6**

Don Spellman informed the committee the next SC6 meeting is planned for November 2005 in Argentina.

### **G. CSA/NFSC Standards Liaison**

Shami Dua expressed his opinion that our standards would be very useful to Canada, and he would like to identify standards that could be "cross pollinated." Bill Reuland asked for guidance for the proposed reciprocal liaison services.

Action Item 6/05-19: Shami Dua and Bill Reuland to work together on proposal for reciprocal liaison services for approval by CSA and ANS Standards Board.

Prasad Kadambi suggested at some point the Standards Board may need to establish a policy for international liaisons. Steve Stamm said he didn't think it makes sense to have reciprocal voting privileges.

## **9. Old Business**

### **A. Performance Based Standards**

Prasad Kadambi invited registered members to attend the Performance Based Standards Panel discussion on Wednesday, June 8, 2005. Kadambi recommended considering the use of less prescriptive language in all standards. Kadambi offered to assist working groups at the front end of writing a performance-based standard and suggested using ANSI/ANS-2.26-2004, "Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design," Appendix C as a guide.

### **B. NFSC/CSA Liaison Responsibilities**

Discussed under 8G CSA/NFSC Standards Liaison.

## **10. New Business**

The NFSC was provided an opportunity to vote on the PINS of ANS-2.9, "Evaluation of Ground Water Supply for Nuclear Facilities," and ANS-2.17, "Evaluation of Radionuclide Transportation in Ground Water Supply for Nuclear Facilities."

Tom Thomas expressed concern negative PINS votes were not addressed properly. Pat Schroeder informed the Committee all standing negative votes or ballots were handled in the same manner as described in the NFSC procedures. The NFSC would be informed of all standing negatives and provided an opportunity to change their vote/ballot.

— The meeting was adjourned at 5:17 p.m.

## NFSC Action Items • June 2005

Action Item	Description	Responsibility	Status
6/05-01	Evan Lloyd to review ANS-3.8 series standards and provide reaffirmation statement to Pat Schroeder. <b>Due Date: July 1, 2005</b>	Evan Lloyd	Open
6/05-02	Don Spellman to look into DHS funding for 3.8 series standards revisions with Karen McCarthy. <b>Due Date: December 31, 2005</b>	Don Spellman	Open
6/05-03	Chuck Moseley to send Carl Mazzola new NRC Reg. Guide on Structures, Systems, and Components. <b>Due Date: September 2005</b>	Chuck Moseley	Open
6/05-04	Pat Schroeder to provide Tim Dennis background information on ANS-3.1 to identify working group members able to assist with clarification.	Pat Schroeder	Closed
6/05-05	Mike Ruby to work with Jeff Brault to form new working group to revise ANS-57.1. <b>Due Date: June 2006</b>	Mike Ruby and Jeff Brault	Open
6/05-06	Don Spellman to find working group members for ANS-58.3. <b>Due Date: December 31, 2005</b>	Don Spellman	Open
6/05-07	Andy Wehrenberg to review ANS-5.10 and provide Pat Schroeder with reaffirmation statement. <b>Due Date: November 2005</b>	Andy Wehrenberg	Open
6/05-08	NFSC to send names of potential working group members to Carl Mazzola for ANS-40.21. <b>Due Date: November 2005</b>	NFSC Members	Open
6/05-09	Carl Mazzola to contact ANS-2.2 working group chair to discuss the possibility of including nuclear facilities to the standard. <b>Due Date: November 2005</b>	Carl Mazzola	Open
6/05-10	Dick Englehart to find DOE representative to work on ANS-2.3. <b>Due Date: November 2005</b>	Dick Englehart	Open
6/05-11	Pat Schroeder to send Carl Mazzola background information on ANS-2.30 (PINS/correspondence).	Pat Schroeder	Closed
6/05-12	Bill Reuland to draft a procedure for standards scope and objectives statements regarding power plants vs. DOE facilities vs. both in an effort to identify which standards should apply to all facilities. <b>Due Date: November 2005</b>	Bill Reuland	Open

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6/05-13	Pat Schroeder to send electronic copy of ANS-57.5 to Jeff Brault, Mike Cross, Norm Prillaman, and Bob McFetridge for review in consideration for reaffirmation.	Pat Schroeder	Closed
6/05-14	Pat Schroeder to send electronic copy of ANS-57.10 to Jeff Brault, Peter Hastings, Rick Hill, Gon Maxwell for review and consideration for reaffirmation.	Pat Schroeder	Closed
6/05-15	Pat Schroeder to check reaffirmation statement regarding outdated standards that are referenced.	Pat Schroeder	Closed
6/05-16	Pat Schroeder to put Jim Mallay's April 2005 Presentation at ORNL on Standards Resources page of ANS Web site.	Pat Schroeder	Closed
6/05-17	Don Spellman to locate list of American National Standards used by U.S. for Shami Dua. <b>Due Date: November 2005.</b>	Don Spellman	Open
6/05-18	Carl Mazzola to provide Pat Schroeder PINS for ANS-2.6, ANS-2.8, ANS-2.25, ANS-2.30, and ANS-40.21. <b>Due Date: November 2005</b>	Carl Mazzola	Open
6/05-19	Shami Dua and Bill Reuland to work together on proposal for reciprocal liaison services for approval by CSA and ANS Standards Board. <b>Due Date: November 2005</b>	Shami Dua and Bill Reuland	Open
11/04-03	Charlie Brown to provide reaffirmation letter/statement to Pat Schroeder to begin reaffirmation process. <b>Due Date: July 1, 2005</b>	Charlie Brown/ Evan Lloyd	Open
11/04-08	Shami Dua to provide a list of all standards they use to Steve Stamm. <b>Due Date: November 1, 2005</b>	Shami Dua	Open
11/04-10	Pat Schroeder to provide subcommittee chairs list of inactive volunteers from database. <b>Due Date: November 1, 2005</b>	Pat Schroeder	Open
11/04-12	Mike Ruby to generate a PINS to justify need for a revision to ANS-4.5 Then work with Tim Dennis, Shami Dua, Rick Hill, and Prasad Kadambi to resolve what action ANS should take on a coordinated standard (ANS-4.5). <b>Due Date: June 2006</b>	Mike Ruby, Tim Dennis, Shami Dua, Rick Hill, and Prasad Kadambi	Open
11/04-14	Don Spellman to find ANS-22 Subcommittee Chair to replace Rick Hill.	Don Spellman	Open
11/04-15	Carl Mazzola to provide Pat Schroeder with PINS for ANS-2.6, ANS-2.8, ANS-2.17, ANS-2.25, and ANS-2.30.	Carl Mazzola	Closed SeeAction Item 6/05-18

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11/04-16	Malcolm LaBar to provide Pat Schroeder with PINS for ANS-53.1.	Malcolm LaBar	Closed
11/04-17	ExC members should identify possible replacement members for NFSC.	ExC Members	Closed
6/04-05	Don Spellman to check with DOE to see if they will support – 3.12.1 & 3.12.3.	Don Spellman	Closed
6/04-06	Don Eggett to take 41.2, 41.3, 41.4 & 41.6 for DD&R review to determine need for revision of these standards. <b>Due Date: June 2005</b>	Don Eggett	Closed
6/04-07	Andy Wehrenberg to get a hold of Carl Beyer WGC-5.4. May need to contact Emory Collins as well. <b>Due Date: November 2005</b>	Andy Wehrenberg	Open
6/04-13	Carl Mazzola to complete PINS for ANS-2.9.	Carl Mazzola	Closed
11/03-08	ANS HQ will work toward the update and completion of volunteer list. Will contact chairs and ask them to provide list of volunteers on their committees. <b>Due Date: November 2005</b>	Don Spellman, Mike Ruby, and Pat Schroeder	Open
06/03-19	Send Kadambi ANS-41.6 and ANS-41.7 to be considered for performance-based standards <b>Due Date: February 2005</b>	Don Eggett	Open
6/01-13	Send proposed PINS form to ANS Headquarters for the revisions of ANS-58.2. <b>New Due Date: November 2005</b>	Andy Wehrenberg	Open