

**American Nuclear Society  
Nuclear Facility Standards Committee (NFSC) Minutes  
June 9, 2008 • Disneyland Hotel, Anaheim, CA**

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**1. Welcome and Call to Order**

The meeting was called to order and introductions were made.

**2. Approval of June 2007 Meeting Minutes**

The NFSC minutes from the November 12, 2007, meeting were approved with one correction.

**3. Review and Discussion of Existing Action Items**

Existing action items were reviewed.

**4. Standards Project Plan**

An accelerated schedule for development of a standard had been presented at the last meeting. Much work had been done on the proposal since. The revised proposal provided background about standards, goals, and a proposed schedule to expedite development of a new standard or the revision of an existing standard. The proposal acknowledges the importance to use resources efficiently, reduce duplication of work within standards developing organizations (SDOs), and target industry needs. Support from industry organizations would be essential to ensure success of this endeavor. The proposal recognized that many subcommittee chairs have too many projects to manage efficiently and suggested for NFSC at-large members to champion one project. A key factor of the proposal was for sponsors to provide the human and financial resources.

The committee discussed the proposal and agreed to initiate a pilot program to determine if the plan should be adopted.

**5. NFSC Management Reports**

**A. Chairman's Report**

The NFSC Chair reviewed progress of NFSC projects and membership changes.

**B. Standards Coordinator**

Hot list review

It was explained that projects on the "Hot List" were less than three years from being withdrawn by ANSI unless quick action was taken. The report was reviewed and the following was discussed:

- It was noted that ANS-3.1, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," gained a working group chair and was slated for a revision.

- A review would be initiated on ANSI/ANS-55.1-1992 (R2000), "Solid Radioactive Waste Processing System for Light-Water-Cooled Reactor Plants," with the anticipation of having it reaffirmed.
- It was noted that the ANS-18.1 Working Group was meeting during the Anaheim ANS meeting.
- A review would be initiated for ANSI/ANS-57.9-1992 (R2000), "Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)," to determine if a reaffirmation was appropriate.
- It was noted that a reaffirmation ballot on ANSI/ANS-58.8-1994 (R2001), "Time Response Design Criteria for Safety-Related Operator Actions," had been issued and ballot comments were being reviewed. A determination was made that the reaffirmation should proceed but that a revision should be initiated.

### C. Secretary/Staff Report

Status reports were provided to the committee. It was noted that ANS Headquarters hired a new part-time Standards Assistant. The committee was informed that the 2007 Standards Committee Report of Annual Activities was available electronically on the ANS Web site.

## 6. NFSC Subcommittee Reports

### A. ANS-21 Maintenance, Operation, Testing & Training

A successful subcommittee meeting had been held in November 2007. A new working group chair had been found for ANS-3.1, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants." Chair positions for ANS-2.10, "Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation," and ANS-3.4, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," remained open.

Comments on the ANS-3.5-200x, "Nuclear Power Plant Simulators for Use in Operator Training and Examination," ballot were assigned to working group members and were being resolved. Over 200 comments were received, and it was possible that a significant rewrite would be necessary requiring a rebalot.

It was noted that ANS-3.12.3 still needed to be completed and that PINS for a revision of ANS-56.8 were distributed for subcommittee review.

#### Inquiries ANS-3.5 and ANS-56.8

Issues had to be resolved before the inquiries on ANS-3.5 and ANS-56.8 could be completed.

### B. ANS-22 Systems Design Criteria

A reaffirmation ballot was issued on ANSI/ANS-51.10-1991; R2002 (R200x), "Auxiliary Feedwater System for Pressurized Water Reactors," and a reaffirmation ballot would be issued for ANSI/ANS-58.9-2002 (same as ANSI/ANS-58.9-1981 (R1987)), "Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems," as soon as the current ballots closed.

As previously noted, ballot comments were resolved on the reaffirmation ballot of ANSI/ANS-58.8-1994 (R2001), "Time Response Design Criteria for Safety-Related Operator Actions." The reaffirmation would proceed and a revision would be started.

The ANS-58.14 Working Group met last in April 2008 at ANS headquarters and were able to put together a rough draft. The ANS-58.16 Working Group was in need of a new chair. It was suggested that DOE might be interested in ANS-58.16, "Safety and Pressure Integrity Classification for Non-Reactor Nuclear Facilities," and should be contacted for a potential DOE chair.

The committee was in agreement that ANS needed to do something to encourage NRC endorsement of ANS standards. A suggestion was made for a letter to be issued from the consensus committee chair to the NRC Standards Executive requesting endorsement of new, revised, or reaffirmed standards when approved by ANSI.

## C. ANS-24 Modeling & Analysis

### Inquiry & Errata ANS-58.2

It was reported that the ANS-58.2 Working Group was having second thoughts about a clarification issued on an equation in Appendix D and therefore was not in agreement on the erratum. The working group had not been able to form a conclusion and thought the answer might be in an old Electric Power Research Institute (EPRI) Report (NP-4418).

The ANS-58.2 Working Group received a subsequent request for clarification on ANSI/ANS-58.2-1988, "Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture," that had not been addressed. It was recognized that the working group chair had been unresponsive at times.

Carl Mazzola informed the committee that a new working group chair had taken over as the lead for ANS-2.15, ANS-2.16, ANS-2.21, and ANS-3.8.10.

The committee was informed that a draft of ANS-5.4, "Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel," was about 90% complete with resolving working group conflicts.

A reaffirmation ballot for ANSI/ANS-16.1-2003, "Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure," had recently closed without significant comments.

The ANS-18.1 Working Group was meeting that day and had sufficient data to proceed but may need a new PINS, however, the working group chair was looking to retire.

ANS-41.5-200x, "Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation," was issued for rebalot.

#### D. ANS-25 Siting: Environmental & Emergency Preparedness

It was reported that contact was lost with the ANS-2.6 Working Group Chair due to a job change. A suggestion was made to consolidate emergency preparedness standards under ANS-25 and to prepare one standard. A working group chair would be needed.

The ANS-40.21 Working Group Chair provided an update on the group's progress. One member retired leaving only two active members both of which were very busy. A co-chair would help the project progress.

#### ANS-2.2 Reaffirmation Discussion

A question had been raised on whether there was merit to invest the resources to maintain ANSI/ANS-2.2-2002, "Earthquake Instrumentation Criteria for Nuclear Power Plants," as NRC guidance was at least as comprehensive as the ANS standard. After discussion, it was agreed that the DOE would be interested in ANSI/ANS-2.2-2002 remaining a current standard.

#### ANS-2.25 PINS Discussion

The PINS for ANS-2.25-200x, "Surveys of Terrestrial Ecology Needed to License Thermal Power Plants," received a negative vote with a comment that it was felt too vague. After a brief discussion, there was agreement that the title could be clearer. It was suggested to change "thermal power plants" to "nuclear facilities."

#### E. ANS-27 Fuel Cycle, Waste Management & Decommissioning

As the subcommittee chair was unable to attend, no report was provided.

#### F. ANS-28 HTGR Design Criteria

The committee was reminded that ANS-53.1-200x, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants," was issued for preliminary review. Comments received on the preliminary review were given serious consideration. The working group addressed length and clarity issues. They hoped to have the draft revised and ready for formal ballot by the end of month. As ANS-53.1-200x was a top-level, risk-informed standard, the subcommittee would be discussing the next level standards at their meeting later this week.

#### G. ANS-29 Advanced Initiatives

The committee was informed that a reinvigoration of ANSI/ANS-54.1-1989 (W1999) "General Safety Design Criteria for a Liquid Metal Reactor Nuclear Power Plant," was planned.

Comments from the PINS review of ANS-29.1-200x, "Operational Reactivity Management and Oversight at Light Water, Pressurized Water Power Reactors," were not felt substantive, and the project should be able to proceed soon.

## **7. NFSC Liaison Reports**

## A. ASME-NQA

The 2008 version of NQA-1, "Quality Assurance Requirements for Nuclear Facility Applications," was published in May 2008. The NQA-1 Working Group worked with the NRC. They initially had 65 issues. The remaining 10 issues were recently resolved. The NRC committed to an internal review of the standard. There was still talk about combining ANS-3.2 with NQA-1. Six months ago, they thought NQA-1 would be the lead standard, and NRC would not maintain endorsement of the ANS-3.2 standard. At that time, the ANS-3.2 Working Group Chair thought that ANSI/ANS-3.2-2006, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," should be withdrawn, but NRC expressed a concern in April 2008 about requirements in ANS-3.2 that were not in NQA-1. The NFSC was in agreement that ANSI/ANS-3.2-2006 should not be withdrawn.

## B. Nuclear Risk Management Coordinating Committee (NRMCC)

The first ANS/ASME joint standard was approved and would be published with both logos. A presentation at tomorrow's Standards Board meeting would discuss a joint ANS RISC/ASME CNRM consensus committee. ANS published individual risk-informed standards on external events and fire. A risk-informed standard on low power shutdown was in development. ASME had the responsibility for the combined Level 1 standard while ANS had the responsibility to lead the joint projects on Level 2 & Level 3.

## C. International Organization of Standardization (ISO) Technical Committee (TC) 85 / Subcommittee (SC) -6

Not much recent progress had been made in SC-6. The next TC-85 meeting was the following week, June 16 -19, 2008, in Orlando, Florida. Meeting materials had not been published at that time. At the meeting, ANS-53.1-200x, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants," would be presented for possible adoption as a joint ISO standard.

Liaison services between the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and the NFSC would also be provided. The committee meets in January and July each year not always at the same time as the IEEE national meetings. Their next meeting was July 14 – 16, 2008, in Toronto, Canada. Communication had been initiated.

## D. Canadian Standards Association (CSA)

There had been no recent activity with CSA, and therefore there was nothing to report.

## E. Nuclear Energy Institute (NEI)

It was reported that NEI was onboard to help support ANS standards. A volunteer needs spreadsheet was in development. Once completed, NEI would help fulfill volunteer support.

## F. NuStart

The Nustart liaison position was recently created. Initially mixed results were received when standards were circulated for review. This was directly attributed to NuStart members increased responsibilities preparing for licensing new nuclear power plants.

#### G. INPO

The INPO liaison was not able to attend and provide a report.

#### H. NRC

It was reported that the next NRC-sponsored SDO meeting was scheduled for July 9, 2008. The meeting would be held at NIST. A previous SDO meeting was held in November 2007. The agenda would include a discussion on how best to intergrate what SDOs were doing with new reactors and maintaining existing reactors. The NRC was working to keep plants operating provided they can show that the plant can operate safely. The NRC was planning to schedule at least two SDO meetings a year.

### **8. Other Business**

#### NFSC Glossary

All definitions had been incorporated into the glossary. A draft had been issued to NFSC for comment.

### **9. Review of New Action Items**

All action items assigned at the meeting were reviewed.

### **10. Adjournment**

The meeting adjourned at 6:33 pm.