

Members Present

N. Prasad Kadambi, *Standards Board Chair, U.S. NRC*
Donald J. Spellman, *Standards Board Vice Chair, ORNL*
John Abrefah, *ASTM Representative – Alternate, Pacific Northwest National Laboratory*
Allen L. Camp, *RISC Chair, Sandia National Laboratories*
Peter S. Hastings, *Member at Large, Duke Energy*
Carl A. Mazzola, *NFSC Chair, Shaw Environmental and Infrastructure, Inc.*
Charles H. (Chuck) Moseley, *Member at Large, Individual*
Jack W. Roe, *NEI Liaison*
R. Michael Ruby, *Member at Large, Constellation Energy-Ginna NPP*
Patricia A. Schroeder, *Standards Administrator, American Nuclear Society*
Stephen H. Shepherd, *Member at Large, Individual*
Steven L. Stamm, *Member at Large, Shaw Nuclear Services*
R. Michael Westfall, *Member at Large, ORNL*
Michael J. Wright, *Member at Large, Entergy*

Members Absent

Dimitrios M. Cokinos, *Member at Large, Brookhaven National Laboratory*
Calvin M. Hopper, *N16 Chair, ORNL*
Tawfik M. Raby, *N17 Chair, NIST*

Guests

Doug Bowen, *Los Alamos National Laboratory*
Nick Brown, *Nuclear Fuel Services*
Timothy Dennis, *Individual*
Tamara Escamilla, *General Electric*
Shana Helton, *YMG Chair, U.S. Nuclear Regulatory Commission*
Sheila Lott, *Los Alamos National Laboratory*
Thomas McLaughlin, *Individual*
William B. Reuland, *Individual*

1. Call to Order

Prasad Kadambi called the meeting to order and introductions were made.

2. Approve Agenda

The agenda was approved without change.

3. ANS Corporate Structure to Better Support Standards

Ad hoc committee report

Prasad Kadambi stated that Mary Beth Gardner confirmed with the ANS lawyer that Standards Committee members were reasonably covered regarding any liability issues. Furthermore that an internet search did not find any other standards developing organizations (SDOs) that created an LLC to secure additional funding for developing standards. Kadambi said that he would like to make more progress on concrete actions before addressing the ANS Board of Directors (BOD).

Follow-on Actions

Kadambi stated that he would continue to work with the ad hoc committee to look into ways to secure funding for standards.

4. Standards Board Chair's Report

Prasad Kadambi provided the Standards Board (SB) a copy of the report submitted to the BOD -- Attachment A. He noted that the report acknowledged the approval of the Combined Standard on April 9, 2008, and that the ANS individual standards would not be maintained once the Combined Standard fulfilled the needs of the user industry. Kadambi noted that the report acknowledged that balance of interest would be certified to meet with ANSI requirements. The report also acknowledged that the Standards Committee was attempting to broaden coordination with other SDOs; two examples being the recent addition of an ASTM liaison on the Standards Board and balloting on two INMM drafts.

Report on NRC sponsored SDO Meetings

Kadambi stated that the next NRC sponsored SDO meeting was set for July 9, 2008, at NIST. The NRC planned to make the SDO meetings a regular occurrence as they had been in the past. The resurgence of the SDO meetings was an initiative of Standards Executive Jennifer Uhle. The purpose of the meetings was to identify areas that SDOs could focus on new standards and avoid duplication.

Discussion on improving industry support on standards

Kadambi said that he was concerned the old way of doing things would not be good enough to find sufficient support for standards. Charles (Chuck) Moseley stated that the last two NQA meetings were better attended than meetings the last two years. Moseley mentioned that several of the NQA committee members stated that they were hiring significantly. Camp added that with the way the industry was going, we may need to approach the BOD about additional resources.

Action Item 06/08-01: Prasad Kadambi to write a letter to the ANS Executive Director about current challenges in standards in need of additional resources.

Donald Spellman stated that international standards were also seeing more activity and were in need of more support. It was noted that George Campbell had taken over for Harry Farrar as NTAG Chair. Spellman stated that the Swedes were interested in ANS-58.14, "Safety and Pressure Integrity Classification Criteria for Light Water Reactors." Kadambi noted that initially the NFSC had planned to update ANS-51.1, "Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants," and ANS-52.1, "Nuclear Safety Criteria for the Design of Stationary Boiling Water Reactor Plants," as risk informed, but it turned out to be a very complex undertaking. Because of a pressing need, a reinvigoration of the deterministic ANS-58.14 was put on the fast track. The NFSC would need to make a decision on whether ANS-50.1, "Nuclear Safety Criteria for the Design of Stationary Light Water Reactor Plants," would be resurrected to compliment ANS-58.14 or if work would restart on risk informed updates to ANS-51.1/52.1.

Mike Wright questioned how volunteer placement was being handled. Pat Schroeder stated that since the SB approved a motion to delegate this responsibility to lower committees, volunteer forms were being sent directly to the responsible chairs for consideration and placement. As part of the motion, the SB requested that the ANS IT Department develop an online Volunteer Database. While it had taken quite some time, Schroeder reported that much work had been completed on the database, and it should be ready soon.

Looking ahead on ANS-ASME-IEEE cooperation/collaboration

As previously noted, ANS was making strides to coordinate activities with other SDOs.

Harmonization with International Standards

This item was briefly discussed under Section 4 in “Improving industry support on standards.”

5. Nuclear Risk Management Coordinating Committee

Progress update

NRMCC Co-chair Chuck Moseley stated that ANS RISC Chair Allen Camp and ASME CNRM Chair Rick Grantom worked extremely well together. He reported that the ASME/ANS Level 1 Combined Standard was approved. Moseley explained that several members of both the ASME Committee on Nuclear Risk Management (CNRM) and RISC suggested that the two committees form one joint committee. To address this issue, Camp and Grantom met to discuss the steps that would be required to combine the two consensus committees.

Camp noted that the CNRM initiated the first PRA standard on internal events. ANS followed initiating development of a PRA standard on external events and a second PRA standard on low power and shutdown (LPSD). Shortly after, ANS initiated development of a third PRA standard on fire. Many of the same members had been involved in development of the PRA standards with both societies and were attending ANS meetings as well as ASME meetings. Because of this duplication of resources, members suggested to combine the two consensus committees. Working together, Camp and Grantom prepared a presentation with the basic concept for creating one joint consensus committee. The identical presentation would be provided to both societies requesting approval of the same motion. See Attachment B for the full presentation.

Camp informed the SB that the first revision of the Combined Standard was under way and responsibilities of dual membership were burdensome to many members. He felt that the members did not have loyalty to either society but were concerned with expediency of development and duplication of their time. Currently the Level 1 Standard was the responsibility of ASME while development of the Level 2 and Level 3 standards were the responsibility of ANS. The Level 1 Standard followed ASME accredited procedures. They were not obliged to accept all ANS comments but to give due consideration. ANS needed to complete the LPSD Standard as well as the Level 2 & Level 3 standards. A need for guidance documents had been identified, but it had not been determined if the guidance documents would be developed by ANS, ASME, NRC, or EPRI.

Camp explained that the joint committee would need its own charter and set of rules and procedures. The make up of the committee would include all current members and retain both the RISC Chair and the CNRM Chair as co-chairs. Camp assured the SB that balance of interest would be maintained with the merger as would final approval by each societies' standards board.

The SB discussed the possibility of merging the RISC and CNRM consensus committees. In general, SB members felt that it was important to use what resources we had efficiently to be responsive to the user community.

Camp requested approval from the SB to put an ad hoc committee together to develop recommendations to be discussed at the next SB meeting with the objective to be implemented the fall of 2009.

The following **MOTION** was made and seconded:

Endorse moving forward with the concept of realigning the ANS Risk Informed Standards Committee and ASME Committee on Nuclear Risk Management to better address the PRA standards needs of the global nuclear industry. An ANS/ASME core team will be formed to

- 1) Identify needs and issues to be addressed,
- 2) Identify options and alternatives,
- 3) Evaluate the options and alternatives
- 4) Make recommendation

The following vote was recorded on the above motion:

Approved (10):

Carl Mazzola
Prasad Kadambi
Mike Ruby
Chuck Moseley
Don Spellman
Peter Hastings
Mike Westfall
Allen Camp
Steve Stamm
Mike Wright

Disapproved (1):

Steve Shepherd

Due Process Document for Development of Joint Standards

It was noted that the Due Process Document was followed for approval of the initial release of the Level 1 Combined Standard. Camp stated that he was comfortable with the document and felt it was sufficient as is. Standards Board members were also content with the process. Although timing was not specifically address in the Due Process Document, Pat Schroeder stated that her only concern was the amount of time ASME provided for ANS to comment/approve the Combined Standard. She further stated that she understood there was an urgency with the initial release of the Combined Standard but hoped that additional releases would allow more time. As the members agreed, Camp took an action item to address this issue with ASME.

Action Item 06/08-02: Allen Camp to bring request to ASME to allow more time on ballot/approval issues.

Prasad Kadambi said that he felt Ken Balkey, the ASME Board of Nuclear Codes and Standards Chair, was instrumental in facilitating the joint project with ANS/ASME and should be recognized. Kadambi proposed a motion.

The following **MOTION** was made, seconded, and approved unanimously:

The ANS Standards Board congratulates Ken Balkey on the highly successful tenure in his leadership of ASME and his many accomplishments in that role. The Standards Board particularly thanks him for his role in the cooperative

manner in which ANS and ASME worked to gain approval of the Combined PRA Standard. The Standards Board wishes Ken all the best in his future endeavors.

Chuck Moseley suggested that the motion be formalized into a letter. Kadambi noted that there would also be letters of appreciation issued to the chairs involved in the Combined Standard as well as members.

6. ANS Standards, Strengths and Weaknesses

Mike Wright noted that the white paper on ANS Standards, Strengths and Weakness had been distributed several times for comment. A revision of the white paper was distributed in the meeting materials packet – Attachment C. Wright directed the members to comments Prasad Kadambi provided – Attachment D.

Kadambi's comments were discussed. Members agreed that the white paper could be enhanced to show the fundamental difference between consensus standards and guidance documents written by NEI or EPRI. Additionally Wright was asked to include the requirement for the use of consensus standards outlined in OMB Circular A-119. The SB recognized a missing link of ANS commenting on Regulatory Guides. Allen Camp suggested including a future agenda item to discuss writing standards for NRC endorsement.

Action Item 06/08-03: Mike Wright to revise white paper to reflect comments of the Standards Board.

Action Item 06/08-04: Pat Schroeder to work with consensus committee chairs to assure that a letter to the NRC Standards Executive is prepared to provide notification and to request NRC endorsement for every standard that is reaffirmed or newly issued.

Jack Roe stated his opinion that there was increasing instability in NRC and suggested that SDOs express this to the Commission. Kadambi recommended working through the NRC Standards Executive Jennifer Uhle. He added that we needed to work towards a more institutionalized framework.

Action Item 06/08-05: Don Spellman to bring sentiment of the Standards Board on working with NRC on writing standards to the SDO meeting.

Wright summarized that he needed to incorporate three new items in the white paper 1) NSAIC efforts as an initiative; 2) the NFSC pilot program for standards plan and 3) letter to NRC requesting endorsement.

Roe proposed a meeting with Uhle. He noted that the meeting should not express complaints. It was recommended that an agenda be developed and to pre-determine who would speak on each issue. Hastings suggested finding a time when many of the group would be in DC.

Action Item 6/08-06: Jack Roe to help facilitate meeting with NRC, not necessarily involving the Standards Board, to discuss concerns related to endorsement.

Action Item 6/08-07: Pat Schroeder to request SDO meeting information from Gene Carpenter for distribution to the Standards Board.

NSAIC identification of needed standards

It was noted that Jack Roe would work with the NSAIC to help find working group members for NFSC working groups. A list of working group needs was being developed and would be provided to Roe when complete.

7. Associate Membership Details

Prasad Kadambi introduced Shana Helton as the incoming chair of the Young Member Group (YMG). Helton stated that she felt there was a real need to involve young members in a shadow program they termed “associate members.” See Attachment E for more details. Kadambi noted that the key was to make sure we involved associate members. The SB felt that it would be beneficial to track young member participation in the Standards Committee. Kadambi suggested making it a part of the consensus committee reports. Helton wanted to make sure that the tracking mechanism did not hinder young member participation. Peter Hastings noted that the associate member program should not be seen as a burden because ANS and the Standards Committee needed the additional resources.

Mike Westfall summarized the findings of the Associate Membership Ad Hoc Committee provided in a letter to outgoing YMG Chair Kent Welter – Attachment F. The letter acknowledged SB acceptance of the associate member program within the Standards Committee. The ad hoc committee suggested that

- each Standards Committee have a maximum of two associate members;
- the term of associate membership be for 2 years;
- the associate member would be considered for full membership in the capacity they served; and
- the chair of any ANS standards activity could grant voting privileges to the Associate Member if appropriate.

As the SB discussed, Steve Shepherd expressed concern with how the term associate member would be accepted by their employers.

06/08-08: Associate Member Ad Hoc Committee (Steve Stamm, Calvin Hopper, Jack Roe) to look into how the Associate Member program affects the Standards Committee Rules and Procedures.

8. Proposal for New Balance of Interest Categories

After having had the time to review the proposal for new balance of interest categories (see Attachment G), Prasad Kadambi suggested using the new categories as a trial to see how they work. It was noted that the definitions of interest categories were part of our accredited rules and procedures and that any change needed to be resubmitted to ANSI for approval. Chuck Moseley stated that he went through a similar process with ASQ in which ANSI considered it a substantive issue.

The following **MOTION** was made and seconded:

to accept the proposed new balance of interest definitions with 9 categories as presented.

The motion was approved with one abstention by Chuck Moseley.

Action Item 06/08-09: Peter Hastings to send Pat Schroeder Duke's new mission statement/name for correction to Appendix C of the proposal.

9. Disparity of Definition of “Should”

Prasad Kadambi noted that there had been inconsistencies about the definition of “should” within Standards Committee documents and within different consensus committees. He stated that the role of the SB was to bring about consistency and recommended that they determine the appropriate definition of “should” for the Standards Committee. It was noted that the ANSI definition for “should” and “shall” from their 2003 Style Guide stated the following:

2. Correct use of "shall," "should," and "must," i.e., correct form of requirements and recommendations:

The correct verb form for indicating a requirement is "shall." The correct verb form for indicating a recommendation is "should." Universally accepted "standardese" does not recognize "must." Use "shall" for indicating a mandatory aspect or an aspect on which there is no option.

Jack Roe explained that he made an informal inquiry to the NRC and was told that “shall” was a requirement but that they had no formal definition of “should.” John Abrefah added that ASTM had found certain common words were starting to have varying definitions in different standards and a glossary was needed for guidance to writing groups.

The consensus of the SB was that the definition of “should” needed to be included in all standards and for the definition to be consistent within all consensus committees. The definition may include the thought that a user ought not to be permitted to ignore a recommendation with impunity. Chuck Moseley suggested a motion be formally adopted by all consensus committees.

The following **MOTION** was made and seconded:

The Standards Board directs each consensus committee to adopt and implement the ANSI accepted definition of “shall” and “should” for all new and revised standards and to include this definition in each standard.

Allen Camp questioned the implication of the proposed motion for the joint ANS/ASME standards. It was felt that as RISC standards required a peer review, ignoring recommendations would be reviewed.

The motion was approved unanimously.

10. Committee Reports (N16, N17, NFSC, RISC)

N16 Report (Attachment H)

Mike Westfall reported in N16 Chair Calvin Hopper’s absence. He noted that N16 had been working on developing committee rules and procedures and were close to completing. Westfall stated that N16 would meet during the November 2008 ANS meeting in Reno. He reminded the SB that Hopper entered a request for clarification as an individual. Westfall informed the SB that N16 had reviewed the inquiry, and it would be provided to the working group for consideration.

N17 Report (Attachment I)

N17 Chair Tawfik Raby was unable to attend but provided a written report.

NFSC Report (Attachment J)

NFSC Chair Carl Mazzola reported on the previous day's NFSC meeting. He noted that the start time was delayed to allow members to attend the plenary. While some questioned this decision, others found a tangible advantage that they could fly out in the morning. Kadambi stated that ANS as a society was trying to get more people to attend the plenary. Mazzola highlighted standards with significant development. He stated that ANS-2.27, "Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments," and ANS-2.29, "Probabilistic Seismic Hazard Analysis," were both nearing completion. These two standards were part of the four pack with ANSI/ANS-2.26-2004, "Categorization of Nuclear Facility Structures, Systems, and Components For Seismic Design," and ASCE/SEI 43-05, "Seismic Design Criteria for Structures, Systems and Components in Nuclear Facilities," published a few years ago. He also noted that ANS-53.1, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants," was issued for preliminary review by NFSC (risk-informed process standard).

Mazzola informed the SB that the NFSC had a discussion on creating a program to assist overworked subcommittee chairs to expedite industry-needed standards. A project would be identified to pilot. Mazzola added that the NFSC would be initiating monthly teleconferences beginning August.

RISC Report (Attachment K)

RISC Chair Allen Camp stated that ANSI/ANS-58.23-2007, "Fire PRA Methodology," was approved and published. He noted that the Level 1 Combined Standard developed jointly with ASME was approved by ANSI and was expected to be published October 2008. He anticipated that the LPSD standard would be out for rebalot very soon. Camp explained that the Level 2 and 3 projects were proceeding a little slowly partly due to the lack of grant money for meeting expenses. Camp added that there was more urgency for the Level 2 standard.

11. Discuss and Resolve Action Items (Kadambi)

See the list of action items at the end of these minutes. The following items were discussed at length:

In discussion of Action Item 11/07-01, it was noted that no other SDOs were found to have set up an LLC to solicit additional funding for standards development. ASTM Rep John Abrefah offered to check with ASTM.

Action Item 06/08-10: John Abrefah to see if ASTM had set up an LLC to secure funding and improve efficiency of standards development.
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Action Item 11/07-06 regarding Calvin Hopper's inquiry on ANS-8.1 was discussed. It was noted that Hopper recused himself from chair responsibilities requesting that Mike Westfall act on his behalf. Prasad Kadambi stated that he requested Westfall to run the inquiry past N16. Westfall explained that the Inquiry was found to be complex as it was both a request for clarification and generic interpretation. Kadambi explained that the role of SB was making sure the process on such matters worked properly and that inquiries were handled promptly. In this case, it was recognized that it had taken longer than it should have. Kadambi directed that the inquiry and findings of N16 be forwarded to the working group for consideration and determination on how to reply.

ANS-8 Subcommittee Chair McLaughlin expressed his concern that the policy was not followed. He noted that the inquiry was received October 2007 but not provided to him until May 2008. McLaughlin felt that the inquiry should have been provided to the subcommittee or working group, if it is active, before the consensus committee. He

added that the response should then be directed up through the Standards Committee. Kadambi accepted responsibility for taking extra time to review and requesting the inquiry to be handled on the consensus committee level. Westfall explained that he wanted to make sure there was concurrence with N16 on whether it was a clarification/interpretation. He added that N16 had drafted reasoning on why one was felt a clarification and the other an interpretation, but the response was the responsibility of the working group.

It was noted that Carl Mazzola completed Action Item 11/07-09 regarding a letter to NRC Standards Executive Jennifer Uhle regarding referencing ANS standards. SB members requested that a copy of the letter be distributed for their reference.

Action Item 06/08-11: Pat Schroeder to distribute Carl Mazzola's letter to Jennifer Uhle regarding referencing ANS standards to the Standards Board.
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Action Item 06/07-19 regarding copyright issue of releasing the tables in the next revision of ANS-6.4.3 as a CD in a readable format was discussed. Schroeder explained that the current working group chair approached her with this request as a revision was being initiated. She explained that she reviewed the old files on ANSI/ANS-6.4.3-1991 and found that the tables were already available in a readable CD format for \$10,000 through RSICC. Additionally, the final draft of the standard was issued as a Regulatory Guide. Even so, sales of the standard remained consistent although administratively withdrawn in 2001. In an earlier discussion with Mary Beth Gardner, no objection to providing a CD in readable format was found as long as RSICC signed a release. Schroeder noted that she'd work with the working group chair when necessary.

12. Certification of Balance of Interest

After a brief review, Chuck Moseley made a motion to approve all balance of interest reports as presented. The motion was seconded and approved unanimously. See reports – Attachment L.

13. Standards Service Award

2008 Recipient

Mike Wright explained that the Standards Service Award Ad Hoc Committee included Chuck Moseley, Steve Stamm, and himself as chair. He announced that the committee considered five strong candidates of which Donald Spellman was selected.

2009 Ad Hoc Committee Chair Appointment

Wright offered to lead the committee again in 2009. Moseley and Stamm offered to remain on the ad hoc committee as well.

Action Item 06/08-12: Mike Wright to lead 2009 Standard Service Award Ad Hoc Committee with Chuck Moseley and Steve Stamm.
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14. Secretary's Reports

Staff Report, Standards Reports, Sales Report

Pat Schroeder directed the members to the provided written report – Attachment M. She noted that the 2007 Standards Committee Report of Annual Activities was published and available online to the public. A hard copy of the report was offered to those in attendance. Schroeder informed the Standards Board that revenue from IHS subscriptions and individual sales of standards increased significantly in the first half of the year. It was noted that the increase in revenue was attributed to the publication of

eight new and revised standards. Schroeder reported that pricing of standards was increased slightly beginning June 2008. She added that work was continuing with the online volunteer database and hoped to be trained on it soon.

15. Liaison Reports

President's Meeting

Allen Camp reported that ANS President Donald Hintz and incoming ANS Vice President/President elect William Burchill discussed outreach to the industry. It was felt that utility involvement in standards was very important.

Operations & Power Division

Prasad Kadambi informed the SB that ANS was planning on eliminating the track system at meetings and go back to divisions. He noted that the SB had an action item from the strategic plan to get divisions more active in standards. Kadambi stated that Donald Hoffman was putting a metric on divisions to see what standards involvement they had.

Nuclear Energy Institute

Jack Roe informed the SB that he had taken over as working group chair of ANS-3.1. He stated that it was going to be a major change of direction in the apprenticeship program of the standard. Roe stated that NEI would be helping to support NFSC activities by finding volunteers for NFSC working group.

ISO

Don Spellman stated that there would be an ISO meeting the following week in Orlando, Florida. He stated that Subcommittee 6 of Technical Committee 85 was interested in more activity on light water reactors. Spellman suggested that ISO might be interested in ANS-53.1, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants." Pat Schroeder was requested to provide additional information on the ISO meeting to the SB. A brief written report was provided subsequent to the meeting – see Attachment N*.

Action Item 06/08-13: Pat Schroeder to find the ISO Online Program and distributed to the Standards Board.

IEEE/NPEC

Don Spellman informed the SB that he recently agreed to serve as liaison to IEEE/Nuclear Power Engineering Committee (NPEC). He noted that their next meeting was in July. Spellman stated he was still working out the process of exchanging information with IEEE. He added that IEEE was also looking at the need for new standards. A written report was provided subsequent to the meeting – see Attachment N* for more detail.

16. Other Business

No other business was identified.

17. Adjourn

The meeting was adjourned at 4:18 p.m.

*Attachment N includes the ISO Report as well as the IEEE/NPEC Report.

**American Nuclear Society
Standards Board Action Items from ANS June 2008 Meeting**

Action Item	Description	Responsibility	Status
06/08-01	Prasad Kadambi to write a letter to the ANS Executive Director about current challenges in standards in need of additional resources.	Prasad Kadambi	Open
06/08-02	Allen Camp to bring request to ASME to allow more time on ballot/approval issues.	Allen Camp	Open (done)
06/08-03	Mike Wright to revise white paper to reflect comments of the Standards Board.	Mike Wright	Open
06/08-04	Pat Schroeder to work with consensus committee chairs to assure that a letter to the NRC Standards Executive is prepared to provide notification and to request NRC endorsement for every standard that is reaffirmed or newly issued.	Pat Schroeder and Consensus Committee Chairs	Open
06/08-05	Don Spellman to bring sentiment of the Standards Board on working with NRC on writing standards to the SDO meeting.	Don Spellman	Open
06/08-06	Jack Roe to help facilitate meeting with NRC, not necessarily involving the Standards Board, to discuss concerns related to endorsement.	Jack Roe	Open
06/08-07	Pat Schroeder to request SDO meeting information from Gene Carpenter for distribution to the Standards Board.	Pat Schroeder	Open (done)
06/08-08	Associate Member Ad Hoc Committee (Steve Stamm, Calvin Hopper, Jack Roe) to look into how the Associate Member program affects the Standards Committee Rules and Procedures.	Calvin Hopper, Jack Roe, and Steve Stamm	Open
06/08-09	Peter Hastings to send Pat Schroeder Duke's new mission statement/name for correction to Appendix C of the proposal.	Peter Hastings	Open (done)
06/08-10	John Abrefah to see if ASTM had set up an LLC to secure funding and improve efficiency of standards development.	John Abrefah	Open
06/08-11	Pat Schroeder to distribute Carl Mazzola's letter to Jennifer Uhle regarding referencing ANS standards to the Standards Board.	Pat Schroeder	Open (done)
06/08-12	Mike Wright to lead 2009 Standard Service Award Ad Hoc Committee with Chuck Moseley and Steve Stamm.	Mike Wright, Chuck Moseley, and Steve Stamm	Open
06/08-13	Pat Schroeder to find the ISO Online Program and distributed to the Standards Board.	Pat Schroeder	Open (done)
11/07-01	Mary Beth Gardner to check if other SDOs have an LLC similar to ASME.	Mary Beth Gardner	Closed
11/07-02	Prasad Kadambi, Carl Mazzola, and Steve Shepherd to form an ad hoc committee to examine restructuring the standards effort through alternate ways and report back to the Standards Board at the June 2008 meeting.	Prasad Kadambi, Carl Mazzola, Steve Shepherd	Open
11/07-04	Calvin Hopper, Steve Stamm, and Jack Roe to develop details of the "Associate Member" category.	Calvin Hopper, Steve Stamm, and Jack Roe	Closed
11/07-05	Mary Beth Gardner to work with Kevin Ennis (ASME) to refine the Due Process Document.	Mary Beth Gardner	Closed
11/07-06	Prasad Kadambi to review the inquiry on ANS-8.1 submitted by Calvin Hopper and report back to the Standards Board.	Prasad Kadambi	Closed
11/07-07	Consensus committee chairs to work with Pat Schroeder within the ANS structure to identify disparity of definitions of "should."	CC Chairs and Pat Schroeder	Closed
11/07-10	Mike Wright to provide ANS Strengths & Weaknesses White Paper and Standards Board input to John McGaha.	Mike Wright	Closed
11/07-11	Prasad Kadambi to review proposal for new balance of interest categories before formal Standards Board vote.	Prasad Kadambi	Closed

06/07-19	Pat Schroeder to check with ANS lawyer on protection of copyrighted information provided to users on CD in a computer-readable format.	Pat Schroeder	Closed
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ANS Standards Board Report

- The Nuclear Risk Management Coordinating Committee, sponsored jointly by ANS and ASME, continues to be productive in the coordination of risk-informed initiatives.
- The ASME/ANS Combined PRA Standard* achieved consensus between both the ANS Risk-Informed Standards Committee and the ASME Committee on Nuclear Risk Management and will be published October 2008 with the designation of ASME/ANS-RA-S-2008.
- In keeping with the spirit on the Combined Standard, ANS will no longer maintain the individual PRA standards once the Combined Standard fulfills the needs of the user community.
- The Standards Board certifies that the balance of interest on our consensus committees meets ANSI and ANS standards rules.
- ANS maintains 71 current standards of which 18 are in the process of being revised. Additionally 28 new standards are in development.
- We are improving our coordination with other standards developing organizations (such as ASTM and INMM's N15) so as to identify needs for standards and avoid duplication or conflicts.
- We are improving communications with other stakeholders such as the Nuclear Energy Institute (NEI), Electric Power Research Institute (EPRI) and Institute for Nuclear Power Operations (INPO).

*The ASME/ANS Combined PRA Standard includes American National Standards "Probabilistic Risk Assessment for Nuclear Power Plant Applications," ASME RA-S-2002 including all addenda; "External-Events PRA Methodology," ANSI/ANS-58.21-2007; and ANSI/ANS-58.23-2007, "Fire PRA Methodology." "Low Power and Shutdown PRA Methodology," ANS-58.22, will be incorporated into the Combined Standard once approved as an American National Standard.

ANS / ASME Risk Standards Committees Organizational Initiative

**Allen Camp / Rick Grantom – Committee Chairs
Chuck Moseley / Wes Rowley – NRMCC Co-Chairs**

**ANS Standards Board
ASME Board on Nuclear Codes & Standards**

June 2008



1

Background

- Combined PRA Standard ASME/ANS RA-S-2008 completed via coordination of ASME CNRM and ANS RISC
- First addendum to the Combined PRA Standard is underway for technical improvements and compatibility between Parts and to resolve NRC exceptions in RG 1.200, Rev. 2
- CNRM Responsibility for Level 1 PRA, incorporating ANS standards for External Hazards, Fire, and Low Power/Shutdown
- ANS Responsibility for Level 2 and 3 PRA
- Key technical personnel will now have to support two sets of meetings and associated activities.
 - Two sets of governance and approval processes (ASME BNCS, CNRM, ANS Standards Board, and RISC),
 - Two sets of meetings, etc., results in extra burden on key technical personnel



2

Current ASME/ANS Agreement

- ASME CNRM has responsibility for Level 1 PRA
 - Final approval through BNCS
 - ANS RISC performs technical review
 - ANS Standards Board procedural check that ANS comments were appropriately considered



3

Current ASME/ANS Agreement

- ANS RISC has responsibility for Level 2 and Level 3 PRA
 - Final approval through ANS Standards Board
 - ASME CNRM performs technical review
 - ASME BNCS procedural check that ASME comments were appropriately considered



4

Needs For Today and Tomorrow

- Demands on ANS and ASME volunteers are increasing
 - Compliance with RG 1.200 and future revisions is an important industry focus for risk informed applications
 - Parts of the new Combined PRA Standard need revision and enhancements to support end user implementation
 - Need to complete and pilot Low Power/Shutdown, Level 2 and Level 3 PRA Standards
 - Need to develop standards supporting New Reactors
 - Need for other Guidance documents (e.g., Expert Panels)
 - Risk Management standards for other nuclear facility types
- Need for consensus and consistency in Risk Management objectives, goals, and approach
 - Clarity for the nuclear industry and the NRC
 - Improve effectiveness of volunteers



5

Benefits

- Better focus of limited resources and better opportunities for increased volunteer participation
- Better opportunity to develop needed standards actions in a more timely manner
- Better ability to work to common strategic plan
- Greater ability to address global stakeholder needs in a more timely manner
- Ability to develop a common approach to risk-informed standards of all types



6

Costs

- Will be dependent on the level to which the committees are proposed to be combined
- Each society must give up some control, although both Standards Boards will retain ultimate authority for their respective scopes



7

Proposed Process for Moving Forward

- June 2008 – ANS Standards Board and ASME Board on Nuclear Codes & Standards both endorse same motion to move forward with evaluating ANS / ASME risk standards reorganization
- July 2008-August 2008 – Core group representing ANS / ASME Boards and Risk Standards Committees develop details; identify and evaluate options for key decision areas (e.g., structure, interface); summarize benefits / costs; Coordinate with NRMCC
- Fall 2008 – Core team leaders summarize reorganization evaluation to ASME CNRM, ANS RISC, NRMCC, and ANS/ASME Boards; obtain volunteer feedback
- Early 2009 – ANS/ASME Boards review final recommendations on reorganization for approval; Develop implementation plans as appropriate
- Fall 2009 – Target for implementation



8

Proposed Motion for ANS Standards Board / ASME Board on Nuclear Codes and Standards

Endorse moving forward with the concept of realigning the ANS Risk Informed Standards Committee and ASME Committee on Nuclear Risk Management to better address the PRA standards needs of the global nuclear industry. An ANS/ASME core team will be formed to -

1. Identify needs and issues to be addressed
2. Identify options and alternatives
3. Evaluate the options and alternatives
4. Make recommendation



Questions and Discussion



Backup Slides



11

Key Issues to Address and Initial Thoughts

- Charter – Inclusive of RISC and CNRM Charters
- Rules - Committee should operate under one set of rules – TBD
- Chair - Consider co-chairs for initial joint committee
- Membership
 - Inclusive of both committees, may be constrained by numbers
 - Current scan of balance of interest indicates no problems
- Meetings – Goal to reduce total number, may be difficult
- Approvals – Both Boards still approve standards within the currently agreed scope
- Staff Support - TBD



12

ANS Standards Strengths, Weaknesses, and Initiatives by Michael Wright

This document lists the perceived Strengths and Weaknesses of ANS Standards and identifies several initiatives that will be used to enhance the viability of our program. These same strengths and weaknesses, in general, apply to all U.S. standards development organizations. They are not felt to be completely detrimental to the proper operation of a national consensus standards program but rather are just the process of doing this business. What is being proposed here is that these strengths and weaknesses be recognized by all the supporting organizations for the U.S. and international nuclear industry and a method be developed whereby they can be overcome by cooperation of the Standards Development Organizations (SDO) and other non-consensus document developers such that the industry can be served in both a timely and professional manner.

The ANS primary responsibility for standards for the nuclear industry lies in facility and systems design, operations, site evaluations, fuel cycle and waste management, and emergency planning.

Strengths:

- ANS Standards are developed through the consensus process and thus represent Industry accepted technical and administrative requirements. The consensus process ensures a wide representation of Industry interests in the development of the standards. A very careful sanctified process is used to ensure that all parties are represented and comments appropriately satisfied using a balance-of-interest consensus body.
- ANS Standards are appropriate for endorsement through the NRC Regulatory Guides and provide a means for the licensee to understand how to meet the criteria of those guides.
- ANS Standards are applicable to both reactor and non-reactor nuclear facilities including power reactors, research reactors, fuel fabrication and storage facilities, and defense related facilities.
- ANS Standards are endorsed by the American National Standards Institute (ANSI) and are recognized as providing an appropriate basis for safe design, construction, operation, and decommissioning of nuclear facilities.
- ANS Standards are recognized as presenting exceptional and well founded technical positions for a wide range of issues based on many years of experience of those volunteers who make up the working groups for development and maintenance of standards.

Weaknesses:

- ANS Standards generally take a long time to develop and reach consensus approval.
- Other Industry groups such as the Nuclear Energy Institute and the International Atomic Energy Agency are able to develop industry positions on key issues using a more timely, non-consensus based process.

- The benefits of the consensus process are not completely recognized to be more important than developing an Industry position on a fast track. At least in part, the long period required to develop a consensus standard is a result of the voluntary nature of the standards committee members.
- In the case of NEI, each effort to develop an industry position begins with the expectation that each utility will embrace the Industry position at the completion of the effort. Adoption of a particular revision of a standard is at the discretion of the user and is generally made on a cost/benefit basis in relation to the impact a new version of a standard will have on operations and safety of the facility.
- ANS Standards are usually written with the idea that they will be adopted through NRC Regulatory guides as an appropriate way of meeting a regulatory requirement. The participation of NRC committee members does not ensure the ultimate adoption of the standards. Other Industry groups take a more active role in engaging the NRC management in a dialogue that leads to the identification of acceptable approaches during development the Industry position. This approach is very effective when the Industry position involves non-technical issues.
- The clarification process for standards is lengthy and sometimes, when a clarification is requested many years after that standard was approved, the resolution ends in an inability to provide a position on the question due to the breakup of the members of the original working group.

Discussion: Future initiatives to improve the any standards process should include the following elements:

- Improve the interface with other Industry groups to reinforce recognition of the technical relevance of Standards. ANS and NEI should discuss areas where ANS should be responsible for development of specific standards within their areas of responsibility to ANSI. Other SDOs should also be included for their particular expertise.
- ANS should develop focus areas where standards could be developed in concert with the fast track approach of industry groups to support industry initiatives such as new generation plants, different reactor technologies, decommissioning, upcoming defense industry needs, etc. The sector that benefits from these standards development effort should be approached for project funding to reduce the personal impact on volunteers.
- Encourage standards committees to engage the technical and management personnel at NRC during the standards development phase to better guarantee adoption of the standard through the regulatory guide process.
- Establish performance expectations for answering all requests for clarification and interpretation within 3 months. If original committee members are not available to render a technical opinion, the management committee should identify other area resident experts from the society membership database who will be able to render an appropriate position for the society.

Comments from Prasad Kadambi on the ANS Standards Strengths, Weaknesses, and Initiatives White Paper for Consideration and Discussion

(1) It is not clear what the word "Initiatives" is alluding to after reading the document. Did you intend to address the strengths and weaknesses of recent initiatives? Or were you making the point that the initiatives mentioned at the end should be pursued by the ANS to correct weaknesses?

(2) I do not agree that the same strengths and weaknesses apply to all SDOs. Among the main SDOs we are talking about (ASME, IEEE, ASTM, etc.) the issues affecting ANS are quite unique. What must be recognized is one particular strength of all ANSI-certified consensus standards, that they have a special recognition given by national legislation and subject to certain consideration based on the directives of the Executive Branch of government through OMB.

(3) The document appropriately emphasizes cooperation among the SDOs. However, we must recognize that the cooperation is likely to take extra time and decrease the overall efficiency of the standards development process. That does not mean that we should not cooperate. It does mean that when we engage in such cooperation, there is value added to the strengths side of the equation. When, where and how the cooperation works in each case should be the sort of thing discussed by the Standards Board because it involves important judgement calls.

(4) One of the key objectives of the paper appears to be to make a persuasive case for consensus standards as contrasted with non-consensus documents that can be produced much more efficiently. In weighing the strengths and weaknesses, I did not conclude that the strengths are stronger than the weaknesses without considering the Public Law and the OMB Circular. I'd be interested to hear what others on the SB have to say on this.

(5) It should be recognized explicitly that NRC endorsement can occur through a variety of means, including rules, Reg Guides, SRP sections, and inspection procedures. Participation by NRC staff on standards efforts should not be seen as a matter of assuring endorsement. Neither NRC nor ANS should be looked at as being in an all or nothing situation. NRC can endorse a standard with some exceptions taken to one or more provisions. Participation by NRC staff should be seen as decreasing the likelihood of exceptions that the NRC needs to consider.

June 10, 2008

ASSOCIATE MEMBERSHIP PROGRAM

Who: Standards committees and young members
What: Enable and expand Young Member participation in standards development process
Where: Any ANS standard committee
Why: Develop expertise to replace departing experts (e.g., due to retirement); provide standards committees additional volunteers to support the growing need for revised or new standards (e.g., to support new reactor construction)
When: Now!

More Information:

The process to produce an American National Standard requires much time, patience, most of all dedication from several contributors. There are literally hundreds of ANS standards related to every aspect of nuclear power plant design and construction. Right now development of ANS standards face two unique challenges: loss of knowledge as experts retire and need for revised or new standards to support new reactor construction. Therefore, the ANS Young Members Group and the ANS Standards Committee created an associate membership for standards committees. The goal of the associate membership program is to enable and expand Young Member participation in the standards development process, with the following stipulations:

- The associate membership program would not impact the status of existing Young Members on standards committees
- Each standards committee may have two associate members
- The term of the associate membership will be for 2 years

The associate membership is geared towards Young Members who are interested in standards development, but who may not yet possess the knowledge, experience, and/or expertise that would naturally result in the Young Member participating in the standards committee as a regular committee member. For example, the associate membership would enable a Young Member to become involved with a standard that may not directly relate to their field of work. The associate membership would not be appropriate for a Young Member who already possesses the skills to be of value as a full member of the standards committee. The associate member would fully participate in all standards committee activities with the exception of voting. However, the standards committee chair may grant voting privileges to the associate member if the committee chair deems that the knowledge and/or contributions of the associate member are significant enough to warrant voting.

If you are interested or know someone who is interested in becoming an associate member on any standards committee, please contact Shana Helton at shana.helton@nrc.gov or Prasad Kadambi at prasad.kadambi@nrc.gov.



ANS Standards Board

10 June 2008

Dr. Kent B. Welter, Chair
ANS Young Members Group

SUBJECT: INVITATION FOR YOUNG MEMBERS GROUP
PARTICIPATION IN STANDARDS DEVELOPMENT

Dear Dr. Welter,

In response to your October 12, 2007 memorandum (Attachment A), the ANS Standards Board is pleased to invite members of the ANS Young Members Group (YMG) to participate in the development and processes of ANS standards development within the following guidelines for an ANS standards development "Associate Membership Program" whereby:

- The Associate Membership is geared towards new members who are interested in standards development, but who may not yet possess the knowledge, experience, and/or expertise that would naturally result from significant experience in a technical field.
- With the concurrence of the Chair of individual ANS standards activities (i.e., Working Groups, Subcommittees, Consensus Committees, and Standards Board) an Associate Member would be expected to fully participate in those standards activities with the exception of voting.
- Each standards committee may have a maximum of two Associate Members
- The term of the Associate Membership will be for 2 years.
- After 2 years, the Associate Member will be considered for full membership in the capacity that they had served.
- The Chair of any ANS standards activity may grant voting privileges to the Associate Member if that Chair deems that the knowledge and/or contributions of the associate member are significant enough to warrant voting.

We look forward to the YMG acceptance of this invitation.

Thank you and the YMG for stimulating this concept of Associate Members for the ANS standards development.

Best regards,

Dr. Prasad Kadambi, Chair
ANS Standards Board

ATTACHEMENT A

October 12, 2007

MEMORANDUM TO: Dr. Prasad Kadambi, Chair, ANS Standards Committee

FROM: Dr. Kent Welter, Chair, ANS Young Members Group

SUBJECT: PROPOSAL FOR INCREASED YOUNG MEMEBERS GROUP PARTICIPATION IN STANDARDS DEVELOPMENT

I am contacting you on behalf of the ANS Young Members Group (YMG) with regards to ANS standards development. As you well know, the process to produce an American National Standard requires much time, patience, but most of all dedication. Additionally, there are literally hundreds of ANS standards related to every aspect of nuclear power plant design and construction. Right now, development of ANS standards face two unique challenges: loss of knowledge as experts retire and need for revised or new standards to support new reactor construction.

The ANS young members feel that we can make an immediate, positive impact addressing these challenges by increasing our participation in standards development. We propose creating an Associate Membership Program, with the following guidelines:

- The Program would not impact the status of existing young members on standards committees
- Each standards committee may have a maximum of two Associate Members
- The term of the Associate Membership will be for 2 years

The Associate Membership is geared towards young members who are interested in standards development, but who may not yet possess the knowledge, experience, and/or expertise that would naturally result from decades of experience in a technical field. The Associate Membership would not be appropriate for a young member who already possesses the skills to be of value as a member of the standards committee. Full participation in all standards committee activities would be expected of each Associate Member, with the exception of voting. However, the standards committee Chair may grant voting privileges to the Associate Member if the committee Chair deems that the knowledge and/or contributions of the associate member are significant enough to warrant voting.

There is a real and critical need for increased participation in standards development. Through the Associate Membership Program, we feel that ANS young members can make an immediate and positive impact. We look forward discussing this topic further with you. Please contact either Shana Helton or myself at your convenience so that we can discuss this proposal.

Best regards,

Kent B. Welter, Chair, YMG

**REPORT ON
PROPOSED BALANCE OF INTEREST (BOI)
FOR AMERICAN NUCLEAR SOCIETY STANDARDS BOARD
CONSENSUS COMMITTEES**

13 November 2007

**Calvin M. Hopper
Tawfik Raby
Carl Mazzola
Allen Camp**

An action item was developed for an ad hoc committee to develop an alternative proposed “balance of interest” (BOI) definitions that could/should be used for Consensus Committees (CC) within the ANS while still satisfying the requirements of ANSI. Please see the ANS Standards Board (ASB) Draft Minutes action item below.

Action Item 11/05-06: Calvin Hopper, chair ad hoc committee, to develop alternative balance of interest definitions (acceptable to ANSI) with Bob Bari, Tawfik Raby, and Don Spellman. Due Date: January 20, 2006.

After substantial consideration by the ad hoc committee, we make the following recommendation to change the “POLICY ON THE CERTIFICATION OF CONSENSUS COMMITTEE MEMBERSHIP” (JFM edit, 2/25/05) shown in Appendix A from six to nine types of organizations for the determination of the balance of interest (BOI) for consensus committee membership.

The changes in the BOI from 2/25/05 BOI to this 11/13/07 recommendation is reflected in the table below.

Types of Balance of Interest (BOI) Organizations	
2/25/05 BOI	11/13/07 Recommended BOI
Owners	Owners
Vendors	Vendors
Architect-engineers and Consultants	Architect-engineers
	Consultants
Government agencies and National Laboratories	Government agencies
	National Laboratories
Universities and societies	Universities
	Societies
Individuals	Individuals

The revised policy change is necessary to acknowledge and to distinguish the differences in organizational interests and missions from their previous definitions in the 2/25/05 policy revision. It is judged by this ANS Standards Board (ASB) ad hoc committee that

this revised BOI by type of organization will more clearly reflect these differences. The recommended policy change is provided in Appendix B.

For clarity, examples of these organization differences by interests, objectives, or missions are provided in Appendix C.

This recommended policy change is consistent with the “ANSI Essential Requirements: Due process requirements for American National Standards,” Issue date: January 31, 2007, copyright by the American National Standards Institute (ANSI), 25 West 43rd Street, 4th Floor, New York, New York 10036, as provided at www.ansi.org. Section 2.3 from the ANSI Essential Requirements is provided in Appendix D for reference.

The submittal of this recommendation to the ASB completes the deliverable for Action Item 11/05-06 and the follow-up action item from the June 2007 ASB meeting.

Respectfully submitted,

Calvin M. Hopper, Chair N16

Date

Tawfik Raby, Chair N17

Date

Allen Camp, Chair RISC

Date

Carl Mazzola, Chair NFSC

Date

Appendix A

American Nuclear Society Standards Board

POLICY ON THE CERTIFICATION OF CONSENSUS COMMITTEE MEMBERSHIP (2/25/05)

POLICY ON THE CERTIFICATION OF CONSENSUS COMMITTEE MEMBERSHIP

1. BACKGROUND

The accredited rules and procedures for the Standards Committee require that no more than one-third of the membership of each consensus committee represent any one type of organization. In addition, the ANS Bylaws require that the Standards Board certify annually to the Board of Directors that this requirement is met. This policy provides direction to meet these requirements.

2. DEFINITIONS

2.1 *Owner/Operator*

Any organization (including utilities) that owns or operates a nuclear facility. Includes facility operators where the operator and owner are different organizations. Includes individuals who are assigned full time to the operation of a reactor, including the plant manager (or equivalent) or other position in an organization reporting directly to the plant manager. Also, national or international organizations established to represent or work on behalf of owners (e.g., INPO, EPRI, and WANO).

2.2 *Vendor*

Any organization that provides equipment (including fuel) to an owner, the government, or to another vendor. Includes organizations that also provide services to owners. (Typically includes suppliers and manufacturers.)

2.3 *Service Provider*

Any organization that provides services (but not equipment) to an owner, the government, or a vendor. Includes consulting organizations but not individuals. "Services" includes design work (including architectural services), planning, and construction management. Includes organizations that distribute equipment that constitutes a supplementary offering to support and fulfill its primary mission of providing services.

2.4 **Government**

Any federal or state agency (such as departments, administrations, commissions, and boards). Also, organizations whose primary function is to extend the capabilities of a specific government agency (e.g., NRC, DOE, DOD, DOC), including supplying materials, providing consulting services and conducting development work.

2.5 **University and Research Organizations**

Any recognized institute of higher learning. Organizations whose primary function is to conduct research, either commercially or for a government agency, except those organizations defined under government.

2.6 **Standards and Other Industry Organizations**

Representatives of other standards developing organizations if those individuals are officially representing a specific consensus committee that develops consensus standards in nuclear science and engineering of direct interest to the assigned consensus committee. Includes representation from trade organizations (such as NEI), insurance interests, and nuclear inspection organizations. Although each consensus chair must be an ANS member, for the purpose of determining balance of interests, ANS representation is not counted.

2.7 **Individual**

A person who is nationally recognized for expertise within the scope of the assigned consensus committee and whose services or travel are not paid for by any other organization defined herein (with the exception of grants administered by ANS or another organization).

3. **POLICY**

3.1 **Sponsoring Organization**

For the purpose of determining balance of interests the sponsoring organization is that organization that pays for the member's services, travel, or both, associated with the member's participation in the activities of the consensus committee. This criterion applies to full time employees of any organization defined herein regardless of financial support. However, another standards developing organization shall be considered the sponsoring organization for its individual representatives independent of financial support.

3.2 **Certification of Standards Committee Membership**

In February of each year, the Standards Administrator shall request a complete listing of members from each consensus committee chair. This listing should include the name, sponsoring organization, mailing address, telephone number and email address of each

member. Each consensus committee chair shall provide a complete membership listing to the Standards Administrator and the Standards Board Chair by May 15.

The Standards Administrator shall call each chairman who does not reply by April 1 to obtain the needed information.

The complete listing arranged by type of sponsoring organization shall be provided to the ANS Standards Board for certification at each annual meeting of ANS. The sponsoring organizations shall be those defined in 3.1 above and as set forth in the Definitions.

If a member of the Standards Board disagrees with the Chair's assignment of an individual member of a consensus committee to a specific sponsoring organization (that is, the application of the definitions), a vote may be requested. A majority of those present shall determine the appropriate assignment.

3.3 *Maintenance of Balance of Interest*

The Chairman of the Standards Committee shall review the membership of each consensus committee annually to ensure that no one type of organization holds more than one-third of the total membership. Types of organizations include: owners; vendors; service providers; government agencies; universities and research organizations; standards and other industry organizations; and individuals.

The Chair of the Standards Committee shall work with the corresponding consensus committee chair and the Standards Administrator to develop a plan of action to immediately correct any instance where the one-third rule is violated.

06/18/82

(JFM edit, 8/16/99, Revised, 1/20/04)

(JFM edit, 5/27/04; revised 6/29/04)

(JFM edit, 2/12/05, revised 2/25/05)

Appendix B

American Nuclear Society Standards Board

POLICY ON THE CERTIFICATION OF CONSENSUS COMMITTEE MEMBERSHIP (11/13/07 Recommendation)

1. BACKGROUND

The accredited rules and procedures for the Standards Committee require that no more than one-third of the membership of each consensus committee represent any one type of organization. In addition, the ANS Bylaws require that the SB certify annually to the Board of Directors that this requirement is met. This policy provides direction to meet these requirements.

2. DEFINITIONS

2.1 *Owner*

Any organization (including utilities) that owns a commercial nuclear power facility. Includes operators of such facilities where the operator and owner are different companies. Includes national or international organizations established to represent or work on behalf of owners (e.g., NEI, INPO, EPRI, and WANO).

2.2 *Vendor*

Any organization that provides equipment (including fuel) to an owner, the government, or to another vendor. Includes organizations that also provide services to owners. (Vendors are also called suppliers or manufacturers.)

2.3 *Architect-Engineer*

Any organization that provides services (but not equipment) to an owner, the government, or a vendor. Includes organizations that provide design work (including architectural services), planning, and construction management.

2.4 *Consultants*

Any organization whose mission is to provide professional services (but not equipment) for addressing technical, research, development, safety, and regulatory issues among Owners, Vendors, Government, Universities, and National Laboratories.

2.5 *Government Agency*

Any federal or state agency (such as departments, administrations, commissions, and boards) with missions to regulate use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to protect the

environment, and to advance the national, economic, and energy security of the United States.

2.6 ***National Laboratories***

Organizations managing and operating government owned facilities for the purpose of basic and applied research and development for industry or government.

2.7 ***University***

Any recognized institute of higher learning whose mission is to educate and to provide research through an environment of open and interactive collaboration with industry and government.

2.8 ***Societies***

Standards developing organizations, including insurance and nuclear inspection, whose mission is to develop standards, consensus or otherwise, that have potential relevance to ANS standards (ANS representation is not allowed).

2.9 ***Individual***

A person who is nationally recognized for expertise within the scope of the assigned consensus committee and whose services or travel are not paid for by any other organization defined herein (with the exception of grants administered by ANS or a similar organization).

2.10 ***Sponsoring Organization***

The organization that is represented or pays for a persons participation in the activities of the consensus committee. Applies to employees of any organization defined herein regardless of financial support.

3. **POLICY**

3.1 ***Certification of Standards Committee Membership***

The Standards Administrator shall request a complete listing of members from each consensus standards committee chairman. This listing should include the name, sponsoring organization, mailing address, telephone number and email address of each member. This request shall be made in February of each year and a complete compilation provided to the SB Chair by May 15.

The Standards Administrator shall call each chairman who does not reply by April 1 to obtain the needed information.

The complete listing arranged by type of sponsoring organization shall be provided to the ANS Standards Board for certification at each annual meeting of ANS. The sponsoring organizations shall be those set forth in the Definitions only.

3.2 ***Maintenance of Balance of Interest***

The Chairman of the Standards Committee shall review the membership of each consensus committee annually to ensure that no one type of organization holds more than one-third of the total membership. Types of organizations include: owners, vendors, architect-engineers, consultants, government agencies, national laboratories, universities, societies, and individuals.

The Chair of the Standards Committee shall work with the corresponding consensus committee chair and the Standards Administrator to develop a plan of action to immediately correct any instance where the one-third rule is violated.

(ASB revision ??/??/??)

Appendix C

Missions of Selected Recommended Types of Organizations

OWNERS

Duke Power's mission is to create superior value for its customers, employees, communities and Duke Energy investors through the generation, delivery, sale and service of electric power.

Nuclear Fuel Services, Inc.'s mission is to discover and implement cost-effective fuel manufacturing, fuel recycling, material treatment solutions, research and development, site remediation, decontamination and decommissioning, packaging and shipping innovations and safeguards and security insights.

The **Tennessee Valley Authority Nuclear** organization's mission is to ensure safe nuclear power plant operations and achieve its vision of being the best multi-site nuclear power operator in the world.

The **Nuclear Energy Institute's** mission is to promote the policies of the nuclear energy and technologies industry and to participate in both the national and global policy-making process to ensure the formation of policies that promote the beneficial uses of nuclear energy and technologies in the United States and around the world.

AREVA Framatome ANP's mission is to further improve plant performance, reduce operating costs and extend plant lifetime and thus to help our customers power the world with safe, clean and cost-effective nuclear energy.

VENDORS

Ludlum Measurements, Inc.'s mission is to provide a quality radiation detection instruments and associated hardware that meets the needs of the oil industry, new and recycled metals industry, university and medical research labs, and numerous local, state, and federal agencies at a competitive price.

Honeywell International, Inc.'s mission is to convert natural uranium ore to uranium hexafluoride that may be enriched before its use in manufacturing nuclear reactor fuel for military and industrial electric utilities.

Holtech International's mission is to develop technologies that protect public health and safety and provide utmost protection to the workers who our structures, systems, and components designed for spent fuel systems, nuclear components, consulting technology, and site services.

ARCHITECT-ENGINEERS

Lockwood Greene – CH2M Hill's architect and engineering provides global industrial engineering, design and construction services to manufacturing, process, power and institutional markets.

Flour Corporation's mission is to provide engineering, procurement, construction, and maintenance services worldwide to the energy and chemicals industries in government and commerce.

The **Shaw Group** (Stone & Webster)'s mission is to provide premier engineering, design, construction, and maintenance services to government and private-sector clients in a wide array of industries, including the energy, environmental, infrastructure, and emergency response markets.

CONSULTANTS

Nuclear Safety Associates' mission is to collaborate with the design engineering, process engineering, and operations departments, as well as the other safety disciplines, to assure personnel safety in a manner that is most economical and productive for the client

Science Applications International Corporation's mission is to provide research and engineering services.

EXCEL Services Corporation's mission is to provide the highest quality professional services to our clients and the nuclear industry for the resolution of technical, safety, and regulatory issues in support of their clients in achieving the highest level of safety and performance in nuclear facility operations relating to Regulatory and Licensing Services, Management and Consulting Services, Engineering and Technical Services, and Training and Operations Services.

Wyle Laboratories, Inc.'s mission is to provide a diverse range of services and systems to aerospace, military, commercial and government customers in the areas of high tech testing, life sciences, and technical support services including government facility operations, electronics, transportation, nuclear power, and product safety.

ABS Consulting's mission is to provide risk management services that combines industry experts, risk modeling, practical engineering and technology based solutions to assist its clients in managing their operational, security, and catastrophic risks to minimize business interruption of their operations.

GOVERNMENT AGENCIES

The **US Nuclear Regulatory Commission**'s mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment. That mission covers three main areas:

- Commercial reactors for generating electric power and research and test reactors used for research, testing, and training
- Uses of nuclear materials in medical, industrial, and academic settings and facilities that produce nuclear fuel
- Transportation, storage, and disposal of nuclear materials and waste , and decommissioning of nuclear facilities from service

An element in the regulatory process is research for the development and research in support of their regulatory responsibilities.

The **US Department of Energy**'s mission is to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex. The four strategic goals toward achieving the mission are:

- To protect our national security by applying advanced science and nuclear technology to the Nation's defense
- To protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy
- To protect our national and economic security by providing world-class scientific research capacity and advancing scientific knowledge
- To protect the environment by providing a responsible resolution to the environmental legacy of the Cold War and by providing for the permanent disposal of the Nation's high-level radioactive waste.

The **US Department of Transportation**'s mission is to serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.

NATIONAL LABORATORIES

Oak Ridge National Laboratory's mission is to conduct basic and applied research that provides innovative solutions to complex problems. This is accomplished with a staff of more than 4,000 and annually hosts approximately 3,000 guest researchers who spend two weeks or longer in Oak Ridge in six major mission roles with subcategories spanning a broad range of scientific studies relevant to nuclear energy applications including:

- neutron science
- energy
- high-performance computing systems
- biology

- materials science at the nanoscale
- national security

Support for the basic and applied research is typically provided by the research organizations of various US agencies. The products of the research is usually the revelation of knowledge, not policy, that is provided for use in industry by technology transfer, education, health, safety, security, energy, transportation, etc.

UNIVERSITIES

The **University of Tennessee**'s mission is to add value to Tennessee by educating its students, doing research and creative work that improves quality of life, and reaching out to share expertise with Tennesseans.

The **University of Chicago** Physical Sciences Division's mission is to provide research through an environment of open and highly interactive collaboration.

The **University of California**'s mission is to educate the leaders of tomorrow in our laboratories through innovative research to improve lives and to drive the economy by constantly searching for ways to expand and enhance educational opportunities for all Californians.

SOCIETIES

The **Health Physics Society**'s mission is to advance excellence in the science and practice of radiation safety through encouraging research in radiation science, developing standards, and disseminating radiation safety information for understanding, evaluating, and controlling the potential risks from radiation relative to its benefits.

The **Institute of Nuclear Materials Management**'s mission is to provide the forum for interacting with the leaders in nuclear materials management in industry, government, academia, and international organizations throughout the world for providing effective leadership and professional development in the field of nuclear materials management and for implementing the best approaches and procedures for all aspects of nuclear materials management.

INDIVIDUALS

These **individuals** are typically retired people with extensive experience who represent a valuable theoretical, technical, academic, administrative, government, etc. resource to the consensus committee. They may also represent the interests of interveners or advocates.

Appendix D
Section 2.3 Balance from
ANSI Essential Requirements:
Due process requirements for American National Standards,” Issue
date: January 31, 2007

2.3 Balance

Historically the criteria for balance are that a) no single interest category constitutes more than one-third of the membership of a consensus body dealing with safety-related standards or b) no single interest category constitutes a majority of the membership of a consensus body dealing with other than safety-related standards.

The interest categories appropriate to the development of consensus in any given standards activity are a function of the nature of the standards being developed. Interest categories shall be discretely defined, cover all materially affected parties and differentiate each category from the other categories. Such definitions shall be available upon request. In defining the interest categories appropriate to a standards activity, consideration shall be given to at least the following:

- a) producer;
- b) user;
- c) general interest.

Where appropriate, additional interest categories should be considered.¹

Appropriate, representative user views shall be actively sought and fully considered in standards activities. Whenever possible, user participants shall be those with the requisite technical knowledge, but other users may also participate. User participation should come from both individuals and representatives of organized groups. There are several user categories:

1. User-consumer: Where the standards activity in question deals with a consumer product, such as lawn mowers or aerosol sprays, an appropriate consumer participant’s view is considered to be synonymous with that of the individual user – a person using goods and services rather than producing or selling them.
2. User-industrial: Where the standards activity in question deals with an industrial product, such as steel or insulation used in transformers, an appropriate user participant is the industrial user of the product.
3. User-government: Where the standards activity in question is likely to result in a standard that may become the basis for government agency procurement, an appropriate user participant is the representative of that government agency.
4. User-labor: Where the standards activity in question deals with subjects of special interest to the American worker, such as products used in the workplace, an appropriate user participant is a representative of labor.

¹ Further interest categories that may be used to categorize directly and materially affected persons consist of, but are not limited to, the following: a) Consumer; b) Directly affected public; c) Distributor and retailer; d) Industrial/commercial; e) Insurance; f) Labor; g) Manufacturer; h) Professional society; I) Regulatory agency; j) Testing laboratory; k) Trade association.

N16 Progress Report

June 2008

PINS in Development

ANS-8.3, "Criticality Accident Alarm System," (revision of ANSI/ANS-8.3-1997; R2003)

ANS-8.20, "Nuclear Criticality Safety Training," (revision of ANSI/ANS-8.20-1991; R1999; R2005)

PINS in Approval Process/Resolving Comments

ANS-8.25, "Development of Nuclear Criticality Safety Related Postings," (new standard)

PINS Recently Approved

ANS-8.1, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors," (revision of ANSI/ANS-8.1-1998; R2007)

Standards in Development

ANS-8.1, "Nuclear Criticality Safety in Operations With Fissionable Materials Outside Reactors," (revision of ANSI/ANS-8.1-1998; R2007)

ANS-8.10, "Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement," (revision of ANSI/ANS-8.10-1983; R1988; R1999; R2005)

ANS-8.12, "Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors," (revision of ANSI/ANS-8.12-1987; R1993; R2002)

ANS-8.15, "Nuclear Criticality Control of Selected Actinide Nuclides," (revision of ANSI/ANS-8.15-1981; R1987; R1995; R2005)

ANS-8.19, "Administrative Practices for Nuclear Criticality Safety," (revision of ANSI/ANS-8.19-2005)

ANS-8.21, "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors," (revision of ANSI/ANS-8.21-1995; R2001)

At N16 Ballot/Vote (or resolving comments)

ANS-8.27, "Burnup Credit for LWR Fuel," (new standard)

Published Standards

One revised standard and two new standards were published in 2007.

Other Issues

- N16 Rules & Procedures
- ANS-8.1 Clarification/Interpretation

N17 Progress Report June 2008

Published

ANSI/ANS-15.4-2007, "Selection and Training of Personnel for Research Reactors," (revision of ANSI/ANS-15.4-1988; R1999)

In N17 Ballot/Vote (or resolving comments)

ANS-10.4, "Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry," (revision of ANSI/ANS-10.4-1987; R1998)

ANS-15.11, "Radiation Protection at Research Reactors," (revision of ANSI/ANS-15.11-1993; R2004)

ANS-15.16, "Emergency Planning for Research Reactors," (revision of ANSI/ANS-15.16-1982; R1988; R2000)

ANS-15.19, "Shipment and Receipt of Special Nuclear Material (SNM) by Research Reactors," (historical revision of ANSI/ANS-15.19-1991; W2001)

PINS Approved

ANS-5.1, "Decay Heat Power in Light Water Reactors," (revision of ANSI/ANS-5.1-2005)

ANS-19.11, "Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors," (revision of ANSI/ANS-19.11-1997; R2002)

PINS in Process

ANS-15.21, "Format and Content for Safety Analysis Reports for Research Reactors," (revision of ANSI/ANS-15.21-1996; R2006)

N17 Membership Changes

Michael Corradini, University of Wisconsin-Madison, was added to the committee to represent the National Council on Radiation Protection and Management. David Anderson, Electric Boat Corporation, resigned from the committee. Stanley Anderson, Westinghouse, was added to the committee.

Other Issues

ISO-TC85 "Nuclear Technology" meeting, Orlando, Florida June 15-20, 2008. Two of the three Work Groups of SC6 "Reactor Technology" are chaired by N17 members.

**NFSC Chairman's Report
ANS June 2008 Meeting
Anaheim, California**

I. Standards approved (1)

Standard	Status	SC
ANSI/ANS-58.3-1992; R1998; R2008 , Physical Protection for Nuclear Safety-Related Systems and Components (reaffirmation)	reaffirmed through 2015	ANS-22

II. Standards and draft standards at ballot or comment resolution (9)

Standard	Status	SC
ANS-2.27 , Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments (new standard)	approved but on hold until ANS-2.29 approved	ANS-25
ANS-2.29 , Probabilistic Seismic Hazard Analysis	resolving comments/revising draft	ANS-24
ANS-3.5 , Nuclear Power Plant Simulators for Use in Operator Training and Examination (revision of ANSI/ANS-3.5-1998)	resolving comments/revising draft	ANS-21
ANSI/ANS-16.1-2003 , Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure	at ballot for reaffirmation due 6/6/08	
ANS-41.5 , Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation (new standard)	at rebalot due 6/27/08	ANS-24
ANS-40.37 , Mobile Low-Level Radioactive Waste Processing Systems (reinvigoration of historic standard)	resolving comments	ANS-27
ANSI/ANS-51.10-2002 , Auxiliary Feedwater System for Pressurized Water Reactors (reaffirmation) **ANSI/ANS-51.1-2002 is actually re-approval of ANSI/ANS-51.10-1991 as 2002 reaffirmation attempt exceeded 10 year limit)	at ballot for reaffirmation due 6/10/08	ANS-22
ANS-53.1 , Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants (preliminary review of new standard)	resolving comment from preliminary review	ANS-28
ANSI/ANS-58.8-1994; R2001 , Time Response Design Criteria for Safety-Related Operator Actions (reaffirmation)	resolving comments	ANS-22

III. PINS forms in approval process (4)

Standard	Status	SC
ANS-2.6 , Guidelines for Estimating Present & Forecasting Future Population Distributions Surrounding Nuclear Facility Sites (new standard)	resolving comments	ANS-25
ANS-2.25 , Surveys of Terrestrial Ecology Needed to License Thermal Power Plants (reinvigoration of historic standard)	resolving comments	ANS-25
ANS-29.1 , Operational Reactivity Management and Oversight at Light Water, Pressurized Water Power Reactors (new standard)	resolving comments	ANS-29
ANS-40.21 , Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds (new standard)	resolving comments	ANS-25

**NFSC Chairman's Report
ANS June 2008 Meeting
Anaheim, California**

IV. PINS in preparation (4)

Standard	Status	SC
ANS-2.8 , Determining Design Basis Flooding at Power Reactor Sites (reinvigoration of historic standard)	to be drafted by WG	ANS-25
ANS-40.35 , Volume Reduction of Low-Level Radioactive Waste or Mixed Waste (reinvigoration of historic standard)	to be drafted by WG	ANS-27
ANS-56.8 , Containment System Leakage Testing Requirements	resolving subcommittee comments	ANS-21
ANS-58.2 , Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture (reinvigoration of historic standard)	to be drafted by WG	ANS-24

V. NFSC Membership Changes

Timothy Meneely of Westinghouse was added to the committee to represent new reactors. Don Spellman agreed to be the NFSC representative to IEEE. Stephen Shepherd retired from Southern California Edison but remains with the committee as an individual.

RISC Progress Report

June 2008

Published

ANSI/ANS-58.23-2007, "Fire PRA Methodology"

Action Completed

ANSI/ASME/ANS-RA-S-2008, "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications"

In RISC Ballot/Vote (or resolving comments)

ANS-58.22-200x, "Low Power Shutdown PRA Methodology"

Standards in Progress

ANS-58.24-200x, "Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications

- Writing group proceeding led by Mark Leonard
- PINS approved
- Ballot date being determined

ANS-58.25-200x Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications

- Writing group proceeding led by Keith Woodard
- PINS approved
- Ballot date being determined

Other Issues

- Status of NRC Grant
- Coordination with NRMCC and CNRM
- Combining ANS RISC with ASME CNRM
- Revision of ANSI/ASME/ANS-RA-S-2008

FOR APPROVAL AT JUNE 2008 SB MEETING

**American Nuclear Society
N16, NUCLEAR CRITICALITY SAFETY
BALANCE OF INTEREST BY CATEGORY
2008**

Individuals (1)

George H. Bidinger

Government (5)

Deborah Jackson, U.S. NRC

Calvin M. Hopper, Oak Ridge National Lab.

Burton Rothleder, U.S. DOE

R. Michael Westfall, Oak Ridge National Lab.

Robert E. Wilson, U.S. DOE

Service Provide (2)

Raymond L. Reed, Washington Safety Management Solutions

Richard G. Taylor, INM Nuclear Safety Services

SDOs/Industry Organizations (3)

Robert S. Eby, AIChE Representative (Employed by USEC, Inc.)

Ronald Knief, Institute of Nuclear Materials Management (Employed by XE Corp.)

Scott P. Murray, Health Physics Society (Employed by GE)

University and Research Organizations (2)

Robert D. Busch, University of New Mexico

Ronald E. Pevey, University of Tennessee

Vendors (3)

Calvin D. Manning, AREVA-NP

W. Randy Shackelford, Nuclear Fuel Services

Larry L. Wetzel, Babcock & Wilcox Nuclear Operations Group

Total = 16 votes

VoteSummary

Individuals	1
Government	5
Service Providers	2
SDO/Org	3
Univ. & Res.	2
Vendors	<u>3</u>
TOTAL	16

Revised 4-10-08

FOR APPROVAL AT JUNE 2008 SB MEETING
AMERICAN NUCLEAR SOCIETY
N17, RESEARCH REACTORS, REACTOR PHYSICS,
RADIATION SHIELDING & COMPUTATIONAL METHODS
BALANCE OF INTEREST BY CATEGORY
2008

Individuals (8)

Robert E. Carter
Brian K. Grimes
William Holt
William C. Hopkins
Laurence Kopp
Jack Olhoeft
Stephen Shepherd
Abraham Weitzberg

Government (6 votes – 8 members)

Dimitrios Cokinos, Brookhaven National Lab.
Matthew A Hutmaker, Jr., U.S. DOE
Patrick Madden, U.S. NRC
*Tawfik Raby, National Institute of Standards & Technology
 *Wade Richards, National Institute of Standards & Technology
 *Seymour Weiss
Theodore Schmidt, Sandia National Lab.
Andrew Smetana, Savannah River National Lab.

Owner/Operators (2)

Edward Ehrlich, General Electric
Ray Tsukimura, Aerotest Operations, Inc.

SDOs/Industry Organizations (4)

William H. Bell, AICE (South Carolina Electric & Gas Co.)
Michael L. Corradini, NCRP (University of Wisconsin-Madison)
Brian Dodd, HPS (BD Consulting)
James Miller, IEEE (GAMMA-METRICS) (James F. Miller Consulting Services)

Service Provider (1)

Charles Rombough, CTR Technical Services, Inc.

University and Research Organizations (4)

Nolan Hertel, Georgia Institute of Technology
Chris Heysel, McMaster University
Andrew Kadak, Massachusetts Institute of Technology
Ronald Pevey, University of Tennessee - Knoxville

Vendors (2)

Stanley Anderson, Westinghouse
Anthony Veca, GA Technologies, Inc.

Total = 27 votes (29 members) ***3 NIST members share 1 vote**

<u>Vote Summary:</u>	
Individuals	8
Government	6
Owner/Operator	2
SDOx	4
Service Provider	1
Univ. & Res	4
Vendors	2
TOTAL	27

FOR APPROVAL AT JUNE 2008 SB MEETING
American Nuclear Society
Nuclear Facilities Standards Committee - NFSC
Balance of Interest by Category
2008

Individual (6)

Timothy Dennis
Malcom LaBar
Tom Thomas
William Reuland
Stephen Shepherd
John Stevenson

Government (4)

Richard Englehart, U.S. Department of Energy/HS-31
N. Prasad Kadambi, U.S. Nuclear Regulatory Commission
Sheila Lott, Los Alamos National Laboratory
Donald Spellman, Oak Ridge National Laboratory (NFSC Liaison to IEEE NPEC)

Owner/operator (6)

William Bell, South Carolina Electric & Gas Company
Charles Brown, Southern Nuclear Operating Company
Richard Hall, Exelon Generation Company
Peter Hastings, Duke Energy Company (NuStart Liaison)
R. Michael Ruby, Constellation Energy
Michael Wright, Entergy Nuclear South

Service Provider (10 members w/7 votes)

James August, CORE, Inc.
*Jeffery Brault, Shaw AREVA MOX Services
 *Kevin Bryson, Shaw Environmental Inc.
 *Carl Mazzola, Shaw Environmental Inc.
 *Steven Stamm, Shaw Stone & Webster
Donald Eggett, AES Engineering, Inc.
Richard Hill, ERIN Engineering and Research, Inc.
Evan Lloyd, Exitech Corporation
Jesse Love, Bechtel Power Corporation
Andy Wehrenberg, Southern Nuclear Operating Company

SDOs/Industry Organizations (1)

Charles Moseley, ASME NQA Liaison

Vendors (5 members w/4 votes)

Eric Loewen, General Electric Company
Robert McFetridge, Westinghouse Electric Company
Timothy Meneely, Westinghouse Electric Company
*Dennis Newton, AREVA-NP
 *W. Norman Prillaman, AREVA-NP

Total = 31 members with 27 committee votes
(*shares one vote)

Vote Summary:

Individuals	6
Government	4
Owner/operator	6
Service Provider	7
SDOs/Ind. Org	1
Vendors	4
	<u>28</u>

FOR APPROVAL AT JUNE 2008 SB MEETING
AMERICAN NUCLEAR SOCIETY
RISK INFORMED STANDARDS CONSENSUS COMMITTEE (RISC)
BALANCE INTEREST BY CATEGORY
2008

Individual (1)

M.K. (Ravi) Ravindra, ABS Consulting, Inc. - retired

Government (7 members with 6 votes)

Robert Bari, Brookhaven National Laboratory

Richard Black, U. S. DOE, Office of Nuclear Safety Policy and Standards

Robert J. Budnitz, Lawrence Berkeley National Laboratory

Allen Camp, Sandia National Laboratories

*Mary Drouin, U.S. NRC, Office of Nuclear Regulatory Research

*Mark Rubin, U.S. NRC, Office of Nuclear Reactor Regulation

Jon Young, Pacific Northwest National Laboratory

Owner/operator (3)

John P. Gaertner, Electric Power Research Institute

Kenneth Kiper, FPL Energy Company

Daniel W. (Bill) Stillwell, South Texas Project Nuclear Operating Company

Service Provider (4)

Paul Amico, SAIC

Rick A. Hill, ERIN Engineering and Research, Inc

Gene Hughes, ETRANCO

Jean Savy, Risk Management Solutions

SDOs/Industry Organizations (1)

Biff Bradley, Nuclear Energy Institute

Vendor (4 members with 3 votes)

*Frederick Emerson, General Electric

*Dennis Henneke, General Electric

David Finnicum, Westinghouse (Combustion Engineering)

Stanley Levinson, AREVA-NP

Total = 20 members with 18 votes (*shares one vote: Drouin/Rubin for NRC, Emerson/Henneke for GE)

Vote Summary:

Individual	1
Government	6
Owner/Operator	3
Service Provider	4
SDOs	1
Vendor	3
Total	18

Revised 4-10-08

Staff Report June 2008

Standards Development (Since November 2007)

Standard Proposals: Project Initiation Notification System (PINS) forms were recently submitted to ANSI announcing initiation of nine standards projects that include six revisions to current standards and three proposed standards. Proposed standards include ANS-10.7, "Non-Real Time, High Integrity Software for the Nuclear Industry," ANS-19.12, "Nuclear Data for the Production of Radioisotope," and ANS-58.16, "Safety and Pressure Integrity Classification for Non-Reactor Nuclear Facilities."

Projects at Ballot: Eight ballots have been administered which include four revisions, two reaffirmations, and two new standards. An additional six ballots remain open while comments are being resolved.

ANSI Approvals: The American National Standards Institute granted final approval as an American National Standard to one reaffirmation and one new standard.

Joint ASME/ANS Standard Approved: The first joint ASME/ANS standard, ASME/ANS-RA-S-2008, "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications," was approved by ANSI on April 9, 2008. This joint standard combines ASME RA-S-2002, "Probabilistic Risk Assessment for Nuclear Power Plant Applications (PRA)," ANSI/ANS-58.21-2007, "External-Events in PRA Methodology," and "ANSI/ANS-58.23-2007, "Fire PRA Methodology." ASME/ANS-RA-S-2008 should be available for purchased in October 2008.

Preliminary Review of Draft Standard: The ANS-53.1 Working Group completed a draft entitled, "Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants," which was released for a preliminary review by the Nuclear Facilities Standards Committee. Comments are being considered and a revised draft should be ready for formal ballot within the new few months.

The following two standards have recently been published:

- ANSI/ANS-15.4-2007, "Selection and Training of Personnel for Research Reactors" (revision of ANSI/ANS-15.4-1988; R1999)
- ANSI/ANS-58.23-2007, "Fire PRA Methodology" (new standard)

Standards Sales

Revenue for IHS subscriptions for the first quarter of 2008 saw an increase of \$10,000 representing nearly 25%. The Sales Report from the time period of October 16, 2007, to May 15, 2008, also shows an increase in sales of \$10,000 from the previous high. Increase of individual standards sales can be directly attributed to the publication of eight new and revised standards and the sale of draft and historic standards. The pricing of standards will see a slight increase June 2008.

Committee News

Both the Nuclear Facilities Standards Committee and the Risk Informed Standards Committee are scheduled to meet at the upcoming ANS Meeting in Anaheim, California, along with the

Standards Board and several working groups. As part of a yearly requirement, the Standards Board will be reviewing consensus committee membership for balance of interest to ensure compliance with requirements.

The ANS-58.14 Working Group met at ANS Headquarters on April 21, and April 22, 2008. The group completed a first draft of "Safety and Pressure Integrity Classification Criteria for Light Water Reactors." Generally several drafts are developed before the working group is sufficiently satisfied to release the draft for preliminary review by their subcommittee.

Standards Department Staff Changes

The vacant position of part-time Standards Assistant was filled in March 2008 by Jeanne Valente. Jeanne will assist in the maintenance of the standards files and administering standards ballots to committee members.

Clarification

The ANS Standards Committee received an inquiry determined to be a request for clarification on ANSI/ANS-6.1.1-1991 (W2002), "Neutron and Gamma-Ray Fluence-To-Dose Factors." The clarification was issued and published in the May 2008 issue of *Nuclear News*.

Annual Activity Report

The 2007 Standards Committee Report of Activities has been completed and posted to the ANS Web site under Standards Resources. Reports were received from 28 working group chairs. Response was significant low except for ANS-8.

New On-Line Volunteer Database

The new on-line volunteer database is nearing the final stages of development. Much work has been completed by the IT Department. Once up and running, individuals interested in participation within the Standards Committee will be able to submit their information through a web-based form and upload their resume which will be electronically transmitted to the appropriate chair for review and consideration. Furthermore, the information will be maintained in a password-protected database with searchable capabilities for Standards Committee chairs when forming standards groups.

**STANDARDS SALES REPORT
10/16/07 to 5/15/08**

Designation & Title of Standard	# Of Paper/Electronic Copies Sold	Total Price
ANS-1-2000;R2007 , Conduct of Critical Experiments	14	381.00
ANS-2.2-2002 , Earthquake Instrumentation Criteria for Nuclear Power Plants (RV of 2.2-1988)	3/1	163.80
ANS-2.3-1983;W1993 , Standard for Estimating for Extreme Wind Characteristics at Nuclear Power Plants	2	120.00
ANS-2.7-1982;W1993 , Criteria and Guidelines for Accessing Capability for Surface Faulting at Power Reactor Sites	1	42.00
ANS-2.8-1992;W2002 , Determining Design Basis Flooding at Power Reactor Sites	3	456.00
ANS-2.10-2003 , Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation	8/2	349.20
ANS-2.11-1978;R1989;W2000 , Guidelines for Evaluating Related Geotechnical Parameters at Nuclear Power Sites	1	100.00
ANS-2.23-2002 , Nuclear Plant Response to an Earthquake	7/2	843.90
ANS-2.26-2004 , Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design	6/2	720.00
ANS-3.1-1993;R1999 , Selection, Qualification Training of Personnel for Nuclear Power Plants	13	818.40
ANS-3.2-1994;R1999 , Administrative Controls & Quality Assurance for the Operational Phase of Nuclear Power Plants	2	208.80
ANS-3.2-2006 , Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants	4/8	904.70
ANS-3.3-1988;W1992 , Security for Nuclear Power Plants	1	54.00
ANS-3.4-1983;W1996 , Medical Certification and Monitoring of Personnel Requiring Operator LTC	2	51.00
ANS-3.4-1996;R2002 , Medical Certification and Monitoring of Personnel Requiring Operator LTC	2	57.00
ANS-3.5-1998 , Nuclear Power Plant Simulators for Use in Operator Training and Examination	2	159.60
ANS-3.5-200x Draft , Nuclear Power Plant Simulators for Use in Operator Training and Examination	0/38	1125.00
ANS-3.11-2005 , Determining Meteorological Information at Nuclear Facilities	4/2	571.20
ANS-4.5-1980;R1986;W2001 , Criteria for Accident Monitoring Functions in Light-Water-Cooled Reactors	1	48.60
ANS-5.1-1994;W2004 , Decay Heat Power in Light Water Reactors	1	114.00
ANS-5.1-2005 , Decay Heat Power in Light Water Reactors	4/1	547.20
ANS-5.4-1982;W1993 , Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel	5	162.00
ANS-5.10-1998;R2006 , Airborne Release Fractions at Non-Reactor Nuclear Facilities	2	200.00
ANS-6.1.1-1991;W2001 , Neutron and Gamma-Ray Fluence-To-Dose Factors	10	748.80
ANS-6.1.2-1999 , Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	3	81.00
ANS-6.3.1-1987;R1998 , Program for Testing Radiation Shields in LWRs	13/1	762.00
ANS-6.4-1997;R2004;W2006 , Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants (RV of 6.4-1985)	4	532.80
ANS-6.4-2006 , Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	3/1	222.00
ANS-6.4.2-2006 , Specification for Radiation Shielding Materials	9/2	1606.50
ANS-6.4.3-1991;W2001 , Gamma-Ray Attenuation Coefficients and Buildup Factors for Engineering Materials	4	655.20
ANS-6.6.1-1987;R1998;R2007 , Calculation & Measurement Direct & Scattered Gamma Radiation from LWR Nuclear Power Plants	1/1	214.00
ANS/HpSSC-6.8.1-1981; W1992 , Location and Design Criteria for Area Radiation Monitoring Systems for Light Water Nuclear Reactors	3	156.60
ANS-8.1-1983;R1988;W1998 , Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	1	66.00
ANS-8.1-1998;R2007 , Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors (RV of ANS-8.1-1983;R1988)	10/2	835.20
ANS-8.3-1997;R2003 , Criticality Accident Alarm Systems (RF of ANS-8.3-1997)	4/2	444.60

**STANDARDS SALES REPORT
10/16/07 to 5/15/08**

ANS-8.5-1996;R2002 , Use of Borosilicate-Glass Raschig Rings as a Neutron Absorber in Solutions of Fissile Material	2	96.00
ANS-8.6-1983;R1988;R1995;R2001 , Safety in Conducting Subcritical Neutron-Multiplication	2	45.60
ANS-8.7-1998;R2007 , Guide for Nuclear Criticality Safety in the Storage of Fissile Materials	20	1221.00
ANS-8.9-1987;R1995;W2000 , Nuclear Criticality Safety Guide for Pipe Intersections Containing Aqueous Solutions of Enriched Uranyl Nitrate	3	117.60
ANS-8.10-1983;R1988;R1999;R2005 , Criteria for Nuclear Criticality Safety Controls	1/1	68.40
ANS-8.12-1987;R1993;R2002 , Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors	2	136.80
ANS-8.14-2004 , Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors	2/1	108.00
ANS-8.15-1981;R1987;R1995;R2005 , Nuclear Criticality Control of Special Actinide Elements	4	244.20
ANS-8.17-1984;R1989;R1997;W2004 , Criticality Safety Criteria for the Handling, Storage and Transportation of LWR Fuel Outside Reactors	1	27.00
ANS-8.17-2004 , Criticality Safety Criteria for the Handling, Storage and Transportation of LWR Fuel Outside Reactors	5/1	198.00
ANS-8.19-1996;W2005 , Administrative Practices for Nuclear Criticality Safety	1	21.60
ANS-8.19-2005 , Administrative Practices for Nuclear Criticality Safety	5/1	208.80
ANS-8.20-1991;R1999;R2005 , Nuclear Criticality Training	3	87.00
ANS-8.21-1995;R2001 , Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	2/1	104.40
ANS-8.22-1997 , Nuclear Criticality Safety Based on Limiting & Controlling Moderators	5	201.60
ANS-8.23-1997 , Nuclear Criticality Accident Emergency Planning and Response	1	32.40
ANS-8.23-2007 , Nuclear Criticality Accident Emergency Planning and Response	26/2	2368.20
ANS-8.24-2007 , Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations	15/2	1344.00
ANS-8.26-2007 , Criticality Safety Engineer Training and Qualification Program	31/3	937.50
ANS-10.4-1987;R1998 , Guidelines for the Verification and Validation of Scientific and Engineering Computer Programs in the Nuclear Industry	5/1	613.60
ANS-10.5-2006 , Accommodating User Needs in Scientific and Engineering Computer Software Development	4	159.60
ANS-14.1-2004 , Operation of Fast Pulse Reactors (RV of 14.1-1975;R1982;R1989;R2000)	1	36.00
ANS-15.1-2007 , The Development of Technical Specifications for Research Reactors	24	1612.80
ANS-15.2-1999 , Quality Control for Plate-Type Uranium-Aluminum Fuel Elements	2	91.20
ANS-15.4-1988;R1999;W2007 , Selection and Training of Personnel for Research Reactors	4	182.40
ANS-15.4-2007 , Selection and Training of Personnel for Research Reactors	28	1383.00
ANS-15.8-1995;R2005 , Quality Assurance Program Requirements for Research Reactors	1	48.00
ANS-18.6-1976;R1986;W1995 , Quality Assurance Program Requirements for Research Reactors	4	108.00
ANS-15.11-1993;R2004 , Radiation Protection at Research Reactor Facilities	1	92.00
ANS-15.16-1982;R1988;R2000 , Emergency Planning for Reactors	2	84.00
ANS-15.17-1981;R1987;R2000 , Fire Protection Program Criteria for Research Reactors	1	36.00
ANS-15.21-1996;R2006 , Format and Content for Safety Analysis Reports for Research Reactors	1	107.00
ANS-16.1-2003 , Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure	2/2	444.60
ANS-6.1.2-1999 , Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	1	27.00
ANS-18.1-1984, W1994 , Radioactive Source Term for Normal Operation of Light Water Reactors	1	59.40
ANS-18.1-1999 , Radioactive Source Term for Normal Operation of LWRs	5	331.20

STANDARDS SALES REPORT
10/16/07 to 5/15/08

ANS-19.6.1-2005 , Reload Startup Physics Tests for Pressurized Water Reactors	1	90.00
ANS-40.35-1991;W2001 , Volume Reduction of Low-Level Radioactive Waste or Mixed Waste	1	84.00
ANS-40.37-1993;W2003 , Mobile Radioactive Waste Processing Systems	1	93.60
ANS-51.1-1983;R1988;W2000 , Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants	7	992.00
ANS-55.1-1992;R2000 , Solid Radioactive Waste Processing System for Light-Water-Cooled Reactor Plants (RV of 55.1-1979)	2	224.00
ANS-55.4-1993;R1999;R2007 , Gaseous Radioactive Waste Processing Systems for Light Water Reactor Plants	1	97.00
ANS-55.6-1993;R1999;R2007 , Liquid Radioactive Waste Processing System for Light Water Reactor Plants	8	740.00
ANS-56.2-1984;R1989;W1999 , Containment Isolation Provisions for Fluid Systems After a LOCA	6	744.80
ANS-56.3-1977;R1987;W1997 , Overpressure Protection of Low Pressure Systems Connected to the Reactor Coolant Pressure Boundary	1	42.00
ANS-56.5-1979;R1987;W2000 (Errata Issued), PWR and BWR Containment Spray System Design Criteria	3	271.60
ANS-56.6-1986;W1996 , Pressurized Water Reactor Containment Ventilation Systems	1	78.00
ANS-56.8-1994;W2002 , Containment System Leakage Testing Requirements	3	275.40
ANS-56.8-2002 , Containment System Leakage Testing Requirements	4/2	581.80
ANS-56.10-1982;R1987;W1997 , Subcompartment Pressure & Temperature Transient Analysis in Light Water Reactors	1	97.00
ANS-56.11-1988;W2000 , Design Criteria for Protection Against the Effects of Compartment Flooding in LWR Plants	5	248.40
ANS-57.1-1992;R1998;R2005 , Design Requirements for Light Water Reactor Fuel (RV of 57.1-1980)	8	394.20
ANS-57.2-1983; W1993 , Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants	7	608.00
ANS-57.3-1983;W1993 , Design Requirements for New Fuel Storage Facilities at LWR Plants	7	312.00
ANS-57.7-1988;R1997;W2007 , Design Criteria for an Independent Fuel Storage Installation (Water Pool Type)	5	548.80
ANS-57.9-1992;R2000 , Design Criteria for an Independent Spent Fuel Storage Installation (Dry Storage Type)	3	364.00
ANS-57.10-1996; R2006 , Design Criteria for Consolidation of LWR Spent Fuel	2	193.80
ANS-58.2-1988;W1998 , Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	7	923.00
ANS-58.6-1996;R2001 , Criteria for Remote Shutdown for Light Water Reactors	5	189.00
ANS-58.8-1984; W1994 , Time Response Design Criteria for Nuclear Safety Related Operator Actions	1	48.60
ANS-58.8-1994;R2001 , Time Response Design Criteria for Safety-Related Operator Actions	6	318.60
ANS-58.9-1981;R1987;R2002 , Single Failure Criteria for Water Reactor Safety-Related Fluid Systems	2	72.00
ANS-58.14-1993;W2003 , Safety and Pressure Integrity Classification Criteria for LWR	2	257.40
ANS-58.21-2003;W2007 , External-Events PRA Methodology	20/4	3927.00
ANS-58.23-2007 , Fire PRA Methodology	28/11	6388.20
ANS-59.1-1986;W1996 , Nuclear Safety Related Cooling Water Systems for Light Water Reactors	1	54.00
ANS-59.2-1985;W1995 , Safety Criteria for HVAC Systems Located Outside Primary Containment	1	92.00
ANS-59.51-1997;R2007 , Fuel Oil Systems for Safety-Related Emergency Diesel Generators	3	174.00
ANS-59.52-1998;R2007 , Lubricating Oil Systems for Safety-Related Emergency Diesel Generators	3	162.00
Standards Misc. Drafts/old Historical Standards	37	2550.30
GRAND TOTAL		49742.50

Project Activity Report

5/28/2008

NFSC

ANS- 2 . 3	Determining Tornado and Other Extreme Wind Characteristics at Nuclear Facility Sites	ANS-25	John D. Stevenson	WG Writing Draft
ANS- 2 . 6	Guidelines for Estimating Present & Forecasting Future Population Distributions Surrounding Nuclear Facility Sites	ANS-25	Barbara Mohrman	CC PINS Comment w/WG
ANS- 2 . 8	Determining Design Basis Flooding at Power Reactor Sites	ANS-25	Rick Hill	PINS Development
ANS- 2 . 9	Evaluation of Ground Water Supply for Nuclear Facilities	ANS-25	James S. Bollinger	WG Writing Draft
ANS- 2 . 13	Evaluation of Surface-Water Supplies for Nuclear Power Sites	ANS-25	Lance Vail	PINS Development
ANS- 2 . 15	Criteria for Modeling and Calculating Atmospheric Transport of Routine Releases from Nuclear Facilities	ANS-24	Doyle Pittman & Cliff Glantz	WG Writing Draft
ANS- 2 . 16	Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities	ANS-24	Doyle Pittman / Cliff Glantz	WG Writing Draft
ANS- 2 . 17	Evaluation of Radionuclide Transport in Ground Water for Nuclear Facilities	ANS-25	James Bollinger	WG Writing Draft
ANS- 2 . 18	Standards for Evaluating Radionuclide Transport in Surface Water for Nuclear Power Sites	ANS-25	Angelos Findikakis	PINS Development
ANS- 2 . 21	Criteria for Assessing Atmospheric Effects on the Ultimate Heat Sink	ANS-25	Doyle Pittman & Cliff Glantz	WG Writing Draft
ANS- 2 . 22	Environmental Radiological Monitoring at Nuclear Facilities	ANS-25	Peter Fledderman	WG Writing Draft
ANS- 2 . 25	Surveys of Terrestrial Ecology Needed to License Thermal Power Plants	ANS-25	Chris Guggino	CC PINS Comment w/WG
ANS- 2 . 27	Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	ANS-25	Kathryn L. Hanson	CC Ballot Comment w/ W (
ANS- 2 . 29	Probabilistic Seismic Hazard Analysis	ANS-24	Jean Savy	CC Ballot Comment w/ W (
ANS- 2 . 30	Assessing Capability for Surface Faulting at Nuclear Facilities	ANS-25	Joe Litehiser	WG Writing Draft
ANS- 3 . 1	Selection, Qualification, and Training of Personnel for Nuclear Power Plants	ANS-21	Jack Roe	PINS Development
ANS- 3 . 5	Nuclear Power Plant Simulators for Use in Operator Training and Examination	ANS-21	Timothy Dennis	CC Ballot Comment w/ W (
ANS- 3 . 7 . 1	Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies	ANS-21	OPEN	PINS Development
ANS- 3 . 8 . 1	Criteria for Radiological Emergency Response Functions and Organizations	ANS-25	OPEN	PINS Development
ANS- 3 . 8 . 2	Criteria for the Functional and Physical Characteristics of Radiological Emergency Response Facilities	ANS-21	OPEN	PINS Development
ANS- 3 . 8 . 3	Criteria for Radiological Emergency Response Plans and Implementing Procedures	ANS-25	OPEN	PINS Development
ANS- 3 . 8 . 4	Criteria for Maintaining Radiological Emergency Response Capability	ANS-21	OPEN	PINS Development
ANS- 3 . 8 . 5	Criteria for Emergency Radiological Field Monitoring, Sampling and Analysis	ANS-24	OPEN	PINS Development

ANS- 3 . 8 . 6	Criteria for the Conduct of Offsite Radiological Assessment for Emergency Response for Nuclear Power Plants	ANS-25	OPEN	PINS Development
ANS- 3 . 8 . 10	Criteria for Modeling Real-time Accidental Release Consequences at Nuclear Facilities	ANS-24	Doyle Pittman & Cliff Glantz	WG Writing Draft
ANS- 3 . 12. 3	Decommissioning of Nuclear Production and Utilization Facilities: Operator Training	ANS-21	Don Eggett	WG Writing Draft
ANS- 5 . 4	Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel	ANS-24	Carl E. Beyer	WG Writing Draft
ANS- 16. 1	Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure	ANS-24	Roger D. Spence	Ballot @ CC
ANS- 18. 1	Radioactive Source Term for Normal Operation of Light Water Reactors	ANS-24	Jim Sejvar	WG Writing Draft
ANS- 29. 1	Operational Reactivity Management and Oversight at Light Water, Pressurized Water Power Reactors	ANS-29	Steve Shepherd	CC PINS Comment w/WG
ANS- 40. 21	Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds	ANS-25	Daniel Hang	CC PINS Comment w/WG
ANS- 40. 35	Volume Reduction of Low-Level Radioactive Waste or Mixed Waste	ANS-27	Dennis Ferrigno	PINS Development
ANS- 40. 37	Mobile Low-Level Radioactive Waste Processing Systems	ANS-27	Clint Miller	CC Ballot Comment w/ W ^
ANS- 41. 5	Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation	ANS-24	Saleem Salaymeh	Ballot @ CC
ANS- 51. 10	Auxiliary Feedwater System for Pressurized Water Reactors	ANS-22	David Murphy	Ballot @ CC
ANS- 53. 1	Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants	ANS-28	Jim August	CC Ballot Comment w/ W ^
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	Jim Glover	PINS Development
ANS- 57. 2	Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants	ANS-27	Rob Tucker (?)	CC Ballot Comment w/ W ^
ANS- 57. 3	Design Requirements for New Fuel Storage Facilities at LWR Plants	ANS-27	Rob Tucker (?)	CC Ballot Comment w/ W ^
ANS- 58. 2	Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	ANS-24	Jim Gilmer	PINS Development
ANS- 58. 8	Time Response Design Criteria for Safety-Related Operator Actions	ANS-22	Rick Hill	CC Ballot Comment w/ W ^
ANS- 58. 14	Safety and Pressure Integrity Classification Criteria for Light Water Reactors	ANS-22	Mark Linn	WG Writing Draft
ANS- 58. 16	Safety and Pressure Integrity Classification for Non-Reactor Nuclear Facilities	ANS-22	John D. Stevenson	WG Writing Draft

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ANS- 8 . 1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	ANS-8	Nick Brown & Doug Bowen	WG Writing Draft
ANS- 8 . 3	Criticality Accident Alarm System	ANS-8	Shean Monahan	PINS Development
ANS- 8 . 10	Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement	ANS-8	Linda M. Farrell	WG Writing Draft
ANS- 8 . 12	Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors	ANS-8	Debdas Biswas	WG Writing Draft
ANS- 8 . 15	Nuclear Criticality Control of Selected Actinide Nuclides	ANS-8	Norm L. Pruvost	WG Writing Draft
ANS- 8 . 19	Administrative Practices for Nuclear Criticality Safety	ANS-8	R.W. (Bill) Carson	WG Writing Draft

ANS- 8 . 20	Nuclear Criticality Safety Training	ANS-8	Ron Knief	PINS Development
ANS- 8 . 21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	Hans Toffer	WG Writing Draft
ANS- 8 . 25	Development of Nuclear Criticality Safety Related Postings	ANS-8	Gerard F. Couture	SB PINS Comments w/ WG
ANS- 8 . 27	Burnup Credit for LWR Fuel	ANS-8	Dale Lancaster	CC Ballot Comment w/ WG
<u>N17</u>				
ANS- 1	Conduct of Critical Experiments	ANS-1	Ted Schmidt	PINS Development
ANS- 5 . 1	Decay Heat Power in Light Water Reactors	ANS-19	Ian Gauld	WG Writing Draft
ANS- 6 . 1 . 1	Neutron and Gamma-Ray Fluence-To-Dose Factors	ANS-6	Nolan Hertel	PINS Development
ANS- 6 . 1 . 2	Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	ANS-6	F. Arzu Alpan	WG Writing Draft
ANS- 6 . 3 . 1	Program for Testing Radiation Shields in Light Water Reactors (LWR)	ANS-6	Jennifer Tanner	PINS Development
ANS- 6 . 4 . 3	Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering Materials	ANS-6	Jeffrey C. Ryman Jeffrey C. Ryman (Ph.D.)	PINS Development
ANS- 6 . 6 . 1	Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants	ANS-6	OPEN	PINS Development
ANS- 10. 3	Documentation of Computer Software	ANS-10	Ted Quinn	PINS Development
ANS- 10. 4	Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry	ANS-10	Andy Smetana	CC Ballot Comment w/ WG
ANS- 10. 7	Non-Real Time, High Integrity Software for the Nuclear Industry	ANS-10	Charles Martin	WG Writing Draft
ANS- 15. 2	Quality Control for Plate-Type Uranium-Aluminum Fuel Elements	ANS-15	John Sease/Clinton Dana Cooper	WG Writing Draft
ANS- 15. 8	Quality Assurance Program Requirements for Research Reactors	ANS-15	Sean O'Kelly	WG Writing Draft
ANS- 15. 10	Decommissioning of Research Reactors	ANS-15	Sean O'Kelly	WG Writing Draft
ANS- 15. 11	Radiation Protection at Research Reactors	ANS-15	Steve Miller	CC Ballot Comment w/ WG
ANS- 15. 16	Emergency Planning for Research Reactors	ANS-15	Max Gildner	CC Ballot Comment w/ WG
ANS- 15. 17	Fire Protection Program Criteria for Research Reactors	ANS-15	Leo Bobek	WG Writing Draft
ANS- 15. 19	Shipment and Receipt of Special Nuclear Material (SNM) by Research Reactor	ANS-15	Charles McKibben	CC Ballot Comment w/ WG
ANS- 15. 20	Criteria for the Reactor Control and Safety Systems of Research Reactors	ANS-15	Thomas Myers	PINS Development
ANS- 15. 21	Format and Content for Safety Analysis Reports for Research Reactors	ANS-15	Alexander Adams	SB PINS Comments w/ WG
ANS- 19. 1	Nuclear Data Sets for Reactor Design Calculations	ANS-19	Bob Little	WG Writing Draft
ANS- 19. 3	Determination of Steady-State Neutron Reaction-Rate Distributions and Reactivity of Nuclear Power Reactors -- Slight change 2005 Added "Power"	ANS-19	Ben Rouben	PINS Development
ANS- 19. 4	A Guide for Acquisition and Documentation of Reference Power Reactor Physics Measurements for Nuclear Analysis Verification	ANS-19	Dimitrios Cokinos	PINS Development

ANS- 19. 6 . 1	Reload Startup Physics Tests for Pressurized Water Reactors	ANS-19	C.T. Rombough	WG Writing Draft
ANS- 19. 9	Delayed Neutron Parameters for Light Water Reactors	ANS-19	Mikey Brady Raap	WG Writing Draft
ANS- 19. 10	Methods for Determining Neutron Fluence in BWR and PWR Pressure Vessel and Reactor Internals	ANS-19	Lambros Lois	WG Writing Draft
ANS- 19. 11	Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors (for RV of 1997 issue)	ANS-19	Russ Mosteller	WG Writing Draft
ANS- 19. 12	Nuclear Data for the Production of Radioisotope	ANS-19	Marc Garland / Robert Schenter	WG Writing Draft

RISC

ANS- 58. 22	Low Power and Shutdown PRA Methodology	RISC	Don Wakefield	CC Ballot Comment w/ W C
ANS- 58. 24	Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications	RISC	Mark Leonard	WG Writing Draft
ANS- 58. 25	Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications	RISC	Keith Woodard	WG Writing Draft

Delinquent Standards

5/28/2008

NFSC

Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity	History
ANS- 2 . 2	Earthquake Instrumentation Criteria for Nuclear Power Plants	ANS-25	10/21/2002	12/31/2010	12/31/2010	NONE	Approved as N18.5-1974; revised 1978; revised 5/3/88. Referenced in RG 1.12. Extended to 12/31/95. Second (maximum) extension to 12/31/98. Nuppsco ballot on revision closed 9/30/97. Public review closes 11/28/97. Consensus not resolved. ANSI admin withdrew the 1988 version of this std on 5/19/2000. 11/21/2002- ANSI approved revision. Per Mazzola 6/04 NFSC Report -- reaffirmation should be address in 2006. 11/22/05: Per Dennis Ostrom, this standard could be written for all nuclear facilities -- C. Mazzola suggested preparing a PINS in 2006 to revise for this direction. Looking for new chair. Extension granted until 12/31/2010. Oct 2007: Under consideration for reaffirmation.
ANS- 2 . 10	Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation	ANS-21	4/14/2003		4/14/2008	NONE	Approved in 1979. Under revision and ballot. Extended to 7/31/86; maximum extension to 12/31/89. ANSI withdrawn on 4/90. Re-ballot on 6/19/91. Substantive changes to draft. Ballot new draft. Re-ballot due 3/19/98. 2.01-this std has been transferred from ANS-25 subcommittee to ANS-21. 09/30/02- sent to third ballot to NFSC. ANSI Approved - April 14, 2003; Publication Delivered: June 1, 2004.
ANS- 2 . 23	Nuclear Plant Response to an Earthquake	ANS-21	5/6/2002	12/31/2010	12/31/2010	NONE	Nuppsco ballot closed 9/30/97. Public review closed 11/28/97. ANSI approved standard on 5/6/2002. Extension granted until 12/31/2010. 8/13/07: Per WGC Bob Kassawara, he expects the standard to be used in the immediate future at the Kashiwazaki plant and will be able to assess whether a revision/reaffirmation is appropriate at that time.

ANS- 3 . 1	Selection, Qualification, and Training of Personnel for Nuclear Power Plants	ANS-21	2/4/1999	2/4/2009	2/4/2009	PINS Development	Approved as N18.1 1971; revised in 1978; second revision in 1981; third revision approved 5/19/87. Errata issued (pages 5 and 6) 5/88. Revision approved 4/23/93. Reaffirmed - ANSI approved 2/4/99. ANS-3.1-1981 and the 1988 version were referenced in Reg Guide 1.8. Requested extension from ANSI to 12/31/2004. (8/20/03) - ANSI granted extension until 12/31/2004. Requested 2nd extension from ANSI until 12/31/2007. Action Item 11/05-07 for Tim Dennis to find new WGC. Final extension granted by ANSI until 2/24/2009. Three volunteers (Shingler, Axinn, Stiles) provided for consideration as WGC/WGM. Shingler asked to chair -but turned down. Jack Roe accepted chair position 1/2008 to lead revision; WG is forming.
ANS- 3 . 4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	ANS-21	7/23/2002	12/31/2010	12/31/2010	NONE	Approved as N546 1976; revised 1983; reaffirmed 4/18/88; revised 2/7/96. Extension until 12/31/02. Reaffirmed-ANSI approved 7/23/02 (this RF also includes the new statement to the Fwd.). Per Mike Ruby at June 04 NFSC meeting, just lost WG Chair. Action Item 11/05-07 for Tim Dennis to find new chair. Extension granted until 12/31/2010. 12/10/07: T. Dennis sent offer to L. Kubec-Krause with offer to chair RV but no response. A few other names for potential WGMs provided to T. Dennis.
ANS- 18 . 1	Radioactive Source Term for Normal Operation of Light Water Reactors	ANS-24	9/21/1999	12/31/2007	12/31/2007	WG Writing Draft	Approved as N237-1976. (Under ANS-5 management). Referenced in RG 1.112. Revised 12/31/84. Second extension to 12/31/93. Third extension to 12/31/94. (maximum extension). ANSI Withdrawn 2/13/95. Revised 9/21/99. (7/21/03) - Requested extension from ANSI until 12/31/07. (8/20/03) - ANSI granted extension until 12/31/2007. Per 11/11/04 e-mail from Andy Wehrenberg, Jim Seljvar has agreed to chair next revision. Inquiry received June 2004 determined to be a clarification. Clarification issued 12/2004 resulting in need for errata. Errata issued 12/2005. PINS sent to ANSI 3/24/06. WG has been inactive over the last year plus due to lack of information on source term data. 10/2007: WGC provided needed contacts to get data so that revision can be completed. WG Meeting being held during ANS Annual meeting June 2008.
ANS- 51 . 10	Auxiliary Feedwater System for Pressurized Water Reactors	ANS-22	7/25/2002		7/25/2007	Ballot @ CC	Approved 1979. MC-1 suggests revision at 4/87 meeting; will be extensive working group meeting 11/17/87-NYPA. Extended to 12/31/89. 1979 standard withdrawn by ANSI 4/90. Revision approved 5/10/91. Extended to 12/31/98. ANSI admin withdrew on 5/7/2001, while standard was up for RF. ANSI approved RF on 07/25/2002. RF ballot sent to NFSC 4/11/08 - due date of 6/10/08.

ANS- 55. 1	Solid Radioactive Waste Processing System for Light-Water-Cooled Reactor Plants	ANS-22	6/7/2000	12/31/2008	12/31/2008	NONE	Approved 1979. Referenced in RG 1.143. 5 year maintenance under way; 2nd extension to 12/31/89. 1979 version withdrawn by ANSI in 4/90. ANSI/ANS-55.1 approved 7/28/92. Reaffirmation sent to ANSI w/ 2 negatives on 4/18/00. Reaffirmed by ANSI on 6/7/00. (7/21/03) - Requested extension from ANSI until 12/31/05. (8/20/03) - ANSI granted extension until 12/31/2005. Second extension until 12/31/08. WGC Don Gardner currently not active. ANS-22 SCC Dennis Newton agreed to initiate a RV of this standard in order to resolve comment on RF ballot of ANS-55.6. RV to be initiated. New WGC needed.
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	11/27/2002	12/31/2010	12/31/2010	PINS Development	Approved 1981. Revised 1987. Was originally N45.4-1972 (ANS-7.60). Revised 1/20/87. Extended to 12/31/94. Revised 8/4/94. 11/27/2002- ANSI approved revision. Suggested at June 04 NFSC meeting to make next revision performed based. J. Glover requested PINS form for revision via phone call 3-21-05. Per e-mail from J. Glover 3-21-05, this standard was made performed based in the 2002 revision. Per 11/10/06 email: WG discussing proper direction for revision - PINS will be submitted before work on draft begins. Extension granted until 12/31/2010. WGC provided PINS to SCC T. Dennis. PINS sent to ANS-21 for approval December 2007. As of 5/08: no word from SCC regarding subcommittee approval.
ANS- 57. 9	Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)	ANS-27	6/7/2000	12/31/2008	12/31/2008	NONE	Approved 12/31/84. NUPPSO ballot on revision close 10/19/88; awaiting resolution of negatives; extended to 12/31/90. Second extension to 12/31/91. Revised 05/14/92. Reaffirmed 6/7/2000. (7/21/03) - Requested extension from ANSI until 12/31/05. (8/20/03) - ANSI granted extension until 12/31/2005. Second extension until 12/31/08. Action Item 11/07-13: Jeff Brault to facilitate a review of ANSI/ANS-57.9-1992; R2000 prior to next meeting (6/08) to determine if revision or reaffirmation applicable. Names to help w/review provided to J. Brault by Wright, Roe, & Hill.
ANS- 58. 6	Criteria for Remote Shutdown for Light Water Reactors	ANS-21	8/31/2001	12/31/2009	12/31/2009	NONE	Approved 1983. Reaffirmed 03/17/1989. Combination of ANS-51.9 and 52.5. Under MC-1 management. Extended to 12/31/96. Revised 02/07/96. Mike Wright requested ballot for reaffirmation. Reaffirmed 8/31/01. ANSI granted extension until 12/31/09. Action Item 11/05-07 for Tim Dennis to find new WGC.

ANS- 58. 8	Time Response Design Criteria for Safety-Related Operator Actions	ANS-22	7/23/2001	12/31/2009	12/31/2009	CC Ballot Comment w/ W	Approved 9/14/84. Combination of ANS-51.4 and 52.3. Under MC-1 Management; MC-1 met 9/28/88 to discuss future action. Extended to 12/31/93. Second extension to 12/31/94 (maximum extension). Revised 8/23/94. First extension to 12/31/02. Reaffirmed 7/23/01. Discussion at NFSC June 2004 meeting felt no new data available to warrant revision. ANSI granted extension until 12/31/09. RF Ballot closed 10/30/07. 5/20/08: WGC is currently resolving NFSC RF ballot comments.
ANS- 58. 9	Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems	ANS-22	8/14/2002	12/31/2010	8/14/2007	NONE	Approved 1981. Reaffirmed 09/11/1987. Combination of ANS-51.7 and 52.4. Under MC-1 Management. Extended to 12/31/94. 10/94 draft to working group for approval. 2nd extension to 12/31/97. Reaffirmed 08/14/02. New statement to foreword was added. There are 2 drafts on file: March, 1994 (Action: Revision) Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems; and January, 1995 (Action: Revision) Application of the Single Failure Criterion for Light Water Reactor Safety-Related Fluid Systems. ANSI/ANS-58.9-1981;R1987 was withdrawn but reapproved as new standard -- technically is ANSI/ANS-58.9-2002. Transferred from ANS-21 to ANS-22 in 2007 NFSC restructuring. Extension granted by ANSI until 12/31/10.
ANS- 58. 11	Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	ANS-22	7/23/2002	12/31/2010	12/31/2010	NONE	Approved 5/10/83. Reaffirmed 02/02/1989. Under MC-1 Management. Extended to 12/31/96. SSC approves PC November 1992. Revised 7/10/95. First extension to 12/31/03. Reaffirmed 7/23/02 with new statement to the foreword. Transferred from ANS-21 to ANS-22 in 2007 NFSC restructuring. Extension granted until 12/31/2010.
ANS- 59. 3	Nuclear Safety Criteria for Control Air Systems	ANS-22	8/30/2002	12/31/2010	12/31/2010	NONE	Approved 1977. Revised 09/14/84. Extended to 12/31/92. Revised 7/28/92. Draft on file dated 9/1/83. Second extension to 7/28/02. At ballot RF ballot 2/23/02. ANSI withdrew on 7/26/2002. Reaffirmed 8/30/2002. Extension granted until 12/31/2010. WGC currently working on comments from 58.8 RF ballot. Will send reminder to WGC re: RF on 59.3 when RF on 58.8 completed.

N16

Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity	History
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ANS- 8 . 6	Safety in Conducting Subcritical Neutron-Multiplication Measurements in Situ	ANS-8	7/23/2001	12/31/2009	12/31/2009	NONE	Approved at N16.3-1969. Revised 1975. Revised 5/16/83. Reaffirmed 11/30/88. Extended to 12/31/95. Reaffirmed 9/12/95. Looking to revise. First extension to 12/31/03. Reaffirmed 7/23/01. Per WGC (Valentine) e-mail of 5/12/05, he does not feel that a revision is needed. Per 11/05 minutes: no activity in WG but recommends keeping the standard alive as long as there was someone interested. ANSI granted extension until 12/31/09. Tim Valentine retired as 8.6 WGC via email 5-7-07. Bill Meyers appointed new chair as of Sept 2007.
ANS- 8 . 12	Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors	ANS-8	3/20/2002	12/31/2010	12/31/2010	WG Writing Draft	Published in 1978 (Ref. in RG 3.47). Being revised as ANS-8.12.1 with title change; see below. First extension to 12/31/01. (Rev. of ANS-8.12-1978). Revised 9/11/87. First extension to 12/31/94. Reaffirmed 2/17/93. 4/6/93: Project charter created for "its eventual revision." (Published version calls it "ANSI/ANS-8.12-1987. Reaffirmed 3/20/2002. 8/20/03-ANSI granted extension until 12/31/2007. New chair 6/1/06: Debdas Bixwas replaced Song Huang. Extension granted until 12/31/2010. PINS for revision submitted to ANSI 9/24/07.
ANS- 8 . 21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	7/23/2001	12/31/2009	12/31/2009	WG Writing Draft	Approved 6/12/95. First extension to 12/31/03. Reaffirmed 7/23/01. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted extension until 12/31/2005. As 5th anny is not until 7/23/06, extension should not have been file. WG meeting at 11/04 ANS meeting. Per N16 SB report 11/2004 -- revising. Schlessner e-mail WGC 5/10/05 to recommend maintenance as 5th anny is approaching. ANSI granted extension until 12/31/09. May 2007. PINS for a revision of ANS-8.21 to incorporate a revision of ANS-8.5 approved w/o comment by SB -- submitted to ANSI 2/12/08.

N17

Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity	History
ANS- 6 . 1 . 2	Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	ANS-6	2/11/1999	2/10/2009	2/10/2009	WG Writing Draft	Approved 8/19/83. Revised 12/12/89. Extended to 12/31/96. Second extension to 12/31/99. Revision approved 2/11/99. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI approved extension until 12/31/2005. 2/1/05-New WG Chair: Arzu Alpan (per Bill Hopkins). ANSI granted last extension to 2/10/09. PINS for revisions submitted. SB PINS comment resolutions due 5/27/06. PINS submitted to ANSI 5/25/06. 5/19/08: with < 9 months before standard w/b reaffirming. ANS-6 Chair agreed and reaffirmation w/b initiated once ANS-6 approves. PINS form will then be re-submitted to ANSI for revision.

ANS- 10. 2	Portability of Scientific and Engineering Software	ANS-10	12/20/2000	12/31/2008	12/31/2008	NONE	Approved originally as ANS-STD. 3-1971. Revised 1982. Revised 4/18/88. First extension to 12/31/95. Second extension to 12/31/98. Revised 12/20/00. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted extension until 12/31/2005. Second extension granted until 12/31/08. Portions of this standard will be incorporated into ANS-10.4, WGC/SCC deciding if this standard should be reaffirmed or allowed to be withdrawn per 11/02/05 email for AAR.
ANS- 10. 4	Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry	ANS-10	8/12/1998	8/11/2008	8/11/2008	CC Ballot Comment w/ W C	Approved 5/13/87. First extension to 12/31/94. Second extension to 12/31/97. ANS-8 may take over as new project ANS-8.24. Reaffirmed 8/12/98. 7/19/02-PINS received to revise std. 02/07/03-PINS Notification in ANSI's publication on this date. (7/21/03) - Requested an extension from ANSI until 12/31/2004. (8/20/03) - ANSI granted extension until 12/31/2004. Per 2/2/06 email from C. Martin: Draft nearly done but WG questioning scope change and may submit new PINS -- may also consider reaffirmation. Last extension until 8/11/08. RV PINS submitted for scope change. Title changed with 2007 revised PINS - "Non-safety related" added to title. PINS to be submitted to ANSI. A. Smetana took over as WGC end 2007. Ballot closed 4/28/08 - committee comments & 1 public comment being resolved with due date for CRs of 7/29/08.
ANS- 15. 2	Quality Control for Plate-Type Uranium-Aluminum Fuel Elements	ANS-15	3/11/1999	12/31/2007	12/31/2007	WG Writing Draft	Ref. in RG 2.3. Approved as N398-1974. Reaffirmed 1982. First extension to 12/31/89. Revised 3/30/90. First extension 12/31/98. Revised 3/11/99. Per Wade Richard's 1/9/03 letter: I asked John Sease to work on revising ANS 15.2. John will have a first revision of the standard to the chair by 8/1/03. The chair will send the draft to the committee for their review by 8/4/03. (7/21/03) - Requested extension from ANSI until 12/31/07. (8/20/03) - ANSI granted extension until 12/31/2007. PINS for rev of 1999 standard sent to ANSI 1/11/07. Ballot with revised standard distributed to N17 on 5/1/07 was withdrawn 6/4/07 due to comments received on draft that it was not ready. 9/2007: WGC (Cooper) agreed and suggested that revision be put on hold due to expected progress on the new high power LEU conversion fuel. Revision to be re-initiated when the new LEU fuel development is completed.

ANS- 15. 16	Emergency Planning for Research Reactors	ANS-15	5/3/2000	12/31/2008	12/31/2008	CC Ballot Comment w/ WG	Approved 1978. Revised 1982. Reaffirmed 4/18/88. Ref. in RG 2.6. First extension to 12/31/95. Second extension to 12/31/98. Reaffirmed 5/3/00. Per Wade Richard's 1/9/03 letter: Max Gildner will incorporate the committees comments and send to the chair by 1/31/03. The chair will send the standard to the ANS 15 committee for balloting by 3/4/03.(7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted extension until 12/31/2005. 2nd extension until 12/31/08. Per ANS-15 4/04 meeting minutes, draft in at ballot in SC. PINS for RV submitted to ANSI 1/11/07. N17 ballot of draft closed 3/25/08 with due date for CRs of 6/23/08.
ANS- 15. 17	Fire Protection Program Criteria for Research Reactors	ANS-15	5/3/2000	12/31/2008	12/31/2008	WG Writing Draft	Approved 1981. Reaffirmed 4/3/87. First extension to 12/31/94. Second extension to 12/31/97. Reaffirmed 5/3/00. Per Wade Richard's 1/9/03 letter: Leo will send a draft to the chair by 1/31/03. the chair will send the standard to ANS 15 for balloting by 5/5/03. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted extension until 12/31/2005. Second extension granted until 12/31/08. PINS sent to ANSI 10/1/04.
ANS- 19. 1	Nuclear Data Sets for Reactor Design Calculations	ANS-19	7/23/2002		7/23/2007	WG Writing Draft	Approved as N411-1975. Revised 7/2/83. Reaffirmed 3/3/89. First extension to 12/31/96. Second extension to 12/31/99. Revision balloted 2/18/00; comments being resolved. ANSI withdrawn 5/19/00. ANSI approved revision - July 23, 2002. Publication Delivered: June 1, 2004. Per 6/2005 ANS-19 minutes, existing standard was reviewed and determined to need revision. PINS approved by N17 & SB sent to ANSI 9/5/06.
ANS- 19. 3 . 4	The Determination of Thermal Energy Deposition Rates in Nuclear Reactors	ANS-19	3/20/2002	12/31/2010	12/31/2010	NONE	Approved as N676-1976. Reaffirmed 1983. Reaffirmed 3/3/89. First extension to 12/31/96. Second extension to 12/31/99. ANSI withdrawn 8/19/2000. ANSI approved request for first extension to 12/31/03. Revision approve by ANSI 3/20/2002. Per 6/04 meeting minutes, Perry retired as WGC, Cokinos looking for new chair. Extension granted until 12/31/2010. Per 11/07 ANS-19 Minutes: D. Cokinos will act as temporary chair to initiate a reaffirmation.
ANS- 19. 4	A Guide for Acquisition and Documentation of Reference Power Reactor Physics Measurements for Nuclear Analysis Verification	ANS-19	5/3/2000	12/31/2008	12/31/2008	PINS Development	Approved as N652-1976. Reaffirmed 1983. Reaffirmed 3/3/89. First extension to 12/31/96. Second extension to 12/31/99. Reaffirmed 5/3/00. (7/21/03) - Requested extension from ANSI until 12/31/05. (8/20/03) - ANSI approved extension until 12/31/2005. Second extension granted until 12/31/08. Per ANS-19 minutes 6/04 -- Cokinos looking for new chair. Per 6/2005 minutes, still looking for chair and planning to combine with ANS-19.5. Per ANS-19 11/07 minutes: D. Cokinois agreed to chair revision. WG to be formed -- WG will consider combining with historical RV of ANS-19.5.

ANS- 19. 11 Calculation and Measurement of the ANS-19 12/17/2002 12/31/2010 12/31/2010 WG Writing Draft
Moderator Temperature Coefficient of
Reactivity for Pressurized Water Reactors
(for RV of 1997 issue)

Approved 9/25/97. Publication in process and completed. ANSI granted extension until 12/31/2005. Reaffirmed 12/17/2002. (7/21/03) - Requested extension from ANSI until 12/31/2007. (8/20/03) - ANSI granted extension until 12/31/2007. Maintenance will be discussed at ANS-19 meeting -- 11/15/04. Per 6/2005 minutes, Mosteller will review and decide if reaffirmation or revision is appropriate. Per 6/2007ANS-19 minutes, Mosteller reported that there will be a revision but nothing major. Extension granted until 12/31/2010. PINS approved by N17 with title change. "Water Moderated Power Reactors" changed to "Pressurized Water Reactors." Approved PINS sent to ANSI 1/23/08.

Status of Standards

5/28/2008

NFSC

Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 2 . 1	Guidelines for Determining the Vibratory Ground Motion for the Design of Earthquake for Nuclear Facilities	ANS-25	Inactive Project				NONE
ANS- 2 . 2	Earthquake Instrumentation Criteria for Nuclear Power Plants	ANS-25	Current ANSI/ANS	10/21/2002	12/31/2010	12/31/2010	NONE
ANS- 2 . 3	Determining Tornado and Other Extreme Wind Characteristics at Nuclear Facility Sites	ANS-25	Active Project				WG Writing Draft
ANS- 2 . 4	Guidelines for Determining Tsunami Criteria for Power Reactor Sites	ANS-25	Inactive Project				NONE
ANS- 2 . 5	Standard for Determining Meteorological Information at Nuclear Power Sites	ANS-25	Historical				NONE
ANS- 2 . 6	Guidelines for Estimating Present & Forecasting Future Population Distributions Surrounding Nuclear Facility Sites	ANS-25	Active Project				CC PINS Comment w/WG
ANS- 2 . 7	Guidelines for Assessing Capability for Surface Faulting at Power Reactor Sites	ANS-25	Historical				NONE
ANS- 2 . 8	Determining Design Basis Flooding at Power Reactor Sites	ANS-25	Active Project				PINS Development
ANS- 2 . 9	Evaluation of Ground Water Supply for Nuclear Facilities	ANS-25	Active Project				WG Writing Draft
ANS- 2 . 10	Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation	ANS-21	Current ANSI/ANS	4/14/2003		4/14/2008	NONE
ANS- 2 . 11	Guidelines for Evaluating Site-Related Geotechnical Parameters at Nuclear Power Sites	ANS-25	Historical				NONE
ANS- 2 . 12	Guidelines for Combining Natural and External Man-Made Hazards at Power Reactor Sites	ANS-21	Historical				NONE
ANS- 2 . 13	Evaluation of Surface-Water Supplies for Nuclear Power Sites	ANS-25	Active Project				PINS Development
ANS- 2 . 14	Determination of the Shape of Response Spectra for Use in Nuclear Facilities Design	ANS-25	Inactive Project				NONE
ANS- 2 . 15	Criteria for Modeling and Calculating Atmospheric Transport of Routine Releases from Nuclear Facilities	ANS-24	Active Project				WG Writing Draft
ANS- 2 . 16	Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities	ANS-24	Active Project				WG Writing Draft
ANS- 2 . 17	Evaluation of Radionuclide Transport in Ground Water for Nuclear Facilities	ANS-25	Active Project				WG Writing Draft
ANS- 2 . 18	Standards for Evaluating Radionuclide Transport in Surface Water for Nuclear Power Sites	ANS-25	Active Project				PINS Development

ANS- 2 . 19	Guidelines for Establishing Site-Related Parameters for Site Selection and Design of an Independent Spent Fuel Storage Installation (Water Pool Type)	ANS-27	Historical					NONE
ANS- 2 . 20	Geology, Seismology, and Seismic Criteria (Tentative title)	ANS-25	Inactive Project					NONE
ANS- 2 . 21	Criteria for Assessing Atmospheric Effects on the Ultimate Heat Sink	ANS-25	Active Project					WG Writing Draft
ANS- 2 . 22	Environmental Radiological Monitoring at Nuclear Facilities	ANS-25	Active Project					WG Writing Draft
ANS- 2 . 23	Nuclear Plant Response to an Earthquake	ANS-21	Current ANSI/ANS	5/6/2002	12/31/2010	12/31/2010		NONE
ANS- 2 . 24	Establishing Geotechnical Parameters for Evaluating Geologic Repositories for High-Level Nuclear Waste	ANS-27	Inactive Project					NONE
ANS- 2 . 25	Surveys of Terrestrial Ecology Needed to License Thermal Power Plants	ANS-25	Active Project					CC PINS Comment w/WG
ANS- 2 . 26	Categorization of Nuclear Facility Structures, Systems, and Components For Seismic Design	ANS-22	Current ANSI/ANS	12/02/2004				NONE
ANS- 2 . 27	Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	ANS-25	Active Project					CC Ballot Comment w/WG
ANS- 2 . 28	Nuclear Material Facility Design Against Natural Phenomena	ANS-25	Inactive Project					NONE
ANS- 2 . 29	Probabilistic Seismic Hazard Analysis	ANS-24	Active Project					CC Ballot Comment w/WG
ANS- 2 . 30	Assessing Capability for Surface Faulting at Nuclear Facilities	ANS-25	Active Project					WG Writing Draft
ANS- 3 . 1	Selection, Qualification, and Training of Personnel for Nuclear Power Plants	ANS-21	Current ANSI/ANS	2/4/1999	2/4/2009	2/4/2009		PINS Development
ANS- 3 . 2	Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants	ANS-21	Current ANSI/ANS	7/31/2006		7/31/2011		NONE
ANS- 3 . 3	Security for Nuclear Power Plants	ANS-26	Historical					NONE
ANS- 3 . 4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	ANS-21	Current ANSI/ANS	7/23/2002	12/31/2010	12/31/2010		NONE
ANS- 3 . 5	Nuclear Power Plant Simulators for Use in Operator Training and Examination	ANS-21	Active Project					CC Ballot Comment w/WG
ANS- 3 . 6	Requirements for Preoperational and Startup Testing		Inactive Project					NONE
ANS- 3 . 7	Guide to Standard Format and Content of Emergency Plans for Nuclear Power Generating Facilities		Inactive Project					NONE
ANS- 3 . 7 . 1	Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies	ANS-21	Active Project					PINS Development
ANS- 3 . 7 . 2	Emergency Control Centers for Nuclear Power Plants	ANS-26	Historical					NONE
ANS- 3 . 7 . 3	Radiological Emergency Preparedness Exercises for Nuclear Power Plants	ANS-26	Historical					NONE
ANS- 3 . 8	Criteria for Establishing Emergency Response Facilities	ANS-26	Inactive Project					NONE
ANS- 3 . 8 . 1	Criteria for Radiological Emergency Response Functions and Organizations	ANS-25	Active Project					PINS Development
ANS- 3 . 8 . 2	Criteria for the Functional and Physical Characteristics of Radiological Emergency Response Facilities	ANS-21	Active Project					PINS Development

ANS- 3 . 8 . 3	Criteria for Radiological Emergency Response Plans and Implementing Procedures	ANS-25	Active Project				PINS Development
ANS- 3 . 8 . 4	Criteria for Maintaining Radiological Emergency Response Capability	ANS-21	Active Project				PINS Development
ANS- 3 . 8 . 5	Criteria for Emergency Radiological Field Monitoring, Sampling and Analysis	ANS-24	Active Project				PINS Development
ANS- 3 . 8 . 6	Criteria for the Conduct of Offsite Radiological Assessment for Emergency Response for Nuclear Power Plants	ANS-25	Active Project				PINS Development
ANS- 3 . 8 . 7	Criteria for Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness	ANS-25	Historical	1/30/1998	1/29/2008		PINS Development
ANS- 3 . 8 . 8	Criteria for Onsite Protective Actions During a Radiological Emergency	ANS-26	Inactive Project				NONE
ANS- 3 . 8 . 9	Criteria for Radiological Emergency Response Plans and Implementing Procedures for Permanently Defueled Commercial Nuclear Power Plants	ANS-23	Inactive Project				NONE
ANS- 3 . 8 . 10	Criteria for Modeling Real-time Accidental Release Consequences at Nuclear Facilities	ANS-24	Active Project				WG Writing Draft
ANS- 3 . 9	Criteria for Radiological Emergency Response Plans and Implementing Procedures for Permanently Defueled Commercial Nuclear Power Plants Management of Light Water Reactor Maintenance Programs		Inactive Project				NONE
ANS- 3 . 10	Human Factors Design in Nuclear Power Plants		Inactive Project				NONE
ANS- 3 . 11	Determining Meteorological Information at Nuclear Facilities	ANS-21	Current ANSI/ANS	12/22/2005		12/22/2010	NONE
ANS- 3 . 12 . 1	Decommissioning of Nuclear Production and Utilization Facilities: - Defueled Security Plan	ANS-23	Inactive Project				NONE
ANS- 3 . 12 . 2	Decommissioning of Nuclear Production and Utilization Facilities: - Defueled Safety Analysis Report and Emergency Plan	ANS-23	Inactive Project				NONE
ANS- 3 . 12 . 3	Decommissioning of Nuclear Production and Utilization Facilities: Operator Training	ANS-21	Active Project				WG Writing Draft
ANS- 4	Criteria, Control and Dynamics		Inactive Project				NONE
ANS- 4 . 1	Design Basis Criteria for Safety Systems in Nuclear Power Generating Stations		Historical				NONE
ANS- 4 . 2	(No Assignment)		Inactive Project				NONE
ANS- 4 . 3	Functional Classification and Standards for Application Functions in Nuclear Power Generating Stations		Inactive Project				NONE
ANS- 4 . 3 . 1	Functional Classification for Digital Computers in Nuclear Power Generating Stations		Inactive Project				NONE
ANS- 4 . 3 . 3	Criteria for Beta Class Digital Computers Used in Critical Control and Monitoring Applications in Nuclear Power Plants		Inactive Project				NONE
ANS- 4 . 3 . 4	Criteria for the Application of Digital Computers in Non-Safety Related Functions for Nuclear Power Generating Stations		Inactive Project				NONE
ANS- 4 . 4	Functional Design of PWR Reactivity Control Systems		Inactive Project				NONE
ANS- 4 . 5	Criteria for Accident Monitoring Functions in Light-Water-Cooled Reactors	ANS-21	Historical				NONE

ANS- 4 . 6	Functional Criteria for Data Acquisition and Recording for Transient Reconstruction in Nuclear Power Plants		Inactive Project					NONE
ANS- 5 . 2	Standard Fission-Product Yields for 235U, 238U and 239PU		Inactive Project					NONE
ANS- 5 . 4	Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel	ANS-24	Active Project					WG Writing Draft
ANS- 5 . 6 . 2	Post Accident Access Control and HP Facilities	ANS-21	Inactive Project					NONE
ANS- 5 . 7 . 2	Post Accident Monitoring	ANS-21	Inactive Project					NONE
ANS- 5 . 9	Design Criteria for Nuclear Power Plant Radiation Monitoring Systems	ANS-22	Inactive Project					NONE
ANS- 5 . 10	Airborne Release Fractions at Non-Reactor Nuclear Facilities	ANS-24	Current ANSI/ANS	11/6/2006		11/6/2011		NONE
ANS- 7 . 60	Leakage-Rate Testing of Containment Structures for Nuclear Reactors		Inactive Project					NONE
ANS- 16. 1	Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure	ANS-24	Current ANSI/ANS	7/7/2003		7/7/2008		Ballot @ CC
ANS- 18. 1	Radioactive Source Term for Normal Operation of Light Water Reactors	ANS-24	Current ANSI/ANS	9/21/1999	12/31/2007	12/31/2007		WG Writing Draft
ANS- 18. 1 . 2	Radioactive Materials in Effluents from Light-Water-Cooled Nuclear Power Plants	ANS-24	Inactive Project					NONE
ANS- 18. 1 . 3	Monitoring of Radioactive Materials in Effluents from Light-Water-Cooled Nuclear Power Plants	ANS-24	Inactive Project					NONE
ANS- 18. 5	Surveys of Terrestrial Ecology Needed to License Thermal Power Plants	ANS-25	Historical					NONE
ANS- 29. 1	Operational Reactivity Management and Oversight at Light Water, Pressurized Water Power Reactors	ANS-29	Active Project					CC PINS Comment w/WG
ANS- 40. 4	Storage of Bottled Gases		Inactive Project					NONE
ANS- 40. 11	Radioactive Waste Categories		Inactive Project					NONE
ANS- 40. 12	Radioactive Waste Categories		Inactive Project					NONE
ANS- 40. 21	Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds	ANS-25	Active Project					CC PINS Comment w/WG
ANS- 40. 22	Siting and Operating High-Level Waste Storage Areas		Inactive Project					NONE
ANS- 40. 23	Criteria for Acceptance of Radioactive Wastes at Federal Repositories		Inactive Project					NONE
ANS- 40. 35	Volume Reduction of Low-Level Radioactive Waste or Mixed Waste	ANS-27	Active Project					PINS Development
ANS- 40. 36	Measurement of Radionuclides in Low Level Solid Wastes	ANS-26	Inactive Project					NONE
ANS- 40. 37	Mobile Low-Level Radioactive Waste Processing Systems	ANS-27	Active Project					CC Ballot Comment w/ W
ANS- 41	Environmental Remediation of Radioactivity Contaminated Sites		Inactive Project					NONE
ANS- 41. 2	Criteria for Remote Sensing Techniques for Site Characterization in Environmental Remediation	ANS-23	Inactive Project					NONE
ANS- 41. 3	Determination of Soil Source Terms for Use in Risk Assessment	ANS-23	Inactive Project					NONE

ANS- 41. 4	Analytical Methods for In-Situ Y-Ray Emitters in Soil	ANS-23	Inactive Project				NONE
ANS- 41. 5	Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation	ANS-24	Active Project				Ballot @ CC
ANS- 41. 6	Performance Tests to Evaluate Solid Waste Forms for LL Radioactive Waste and MW	ANS-23	Inactive Project				NONE
ANS- 41. 7	Performance Tests to Evaluate Waste Forms and Emissions for the Thermal Treatment of LL Radioactive and MW	ANS-23	Inactive Project				NONE
ANS- 41. 8	Performance Tests to Evaluate Criteria and Specifications for a Polymer or Cement Waste Form	ANS-23	Inactive Project				NONE
ANS- 41. 9	Performance Tests to Evaluate Criteria and Specifications for Treatment of Waste by Incineration	ANS-23	Inactive Project				NONE
ANS- 50. 1	Nuclear Safety Criteria for the Design of Stationary Light Water Reactor Plants	ANS-22	Inactive Project				NONE
ANS- 50. 2	HTGR Plant Solid Radwaste System (N204)		Inactive Project				NONE
ANS- 50. 3	LMFBR Gas Radwaste (N205)		Inactive Project				NONE
ANS- 50. 4	LMFBR Liquid Radwaste (N206)		Inactive Project				NONE
ANS- 50. 5	LMFBR Solid Radwaste (N207)		Inactive Project				NONE
ANS- 51	Pressurized Water Reactor Management Committee		Inactive Project				NONE
ANS- 51. 1	Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants	ANS-22	Historical				NONE
ANS- 51. 2	Safety Inspection System (N183)		Inactive Project				NONE
ANS- 51. 3	Residual Heat Removal System Design PWR (N185)		Inactive Project				NONE
ANS- 51. 4	Criteria for Safety Related Operator Actions (N660)		Inactive Project				NONE
ANS- 51. 5	Evaluation of Anticipated Transients Without Trip on Pressurized Water Reactor Plants (N661)		Inactive Project				NONE
ANS- 51. 6	Improved Reactor Shutdown Systems on Future PWR Plants (N662)		Inactive Project				NONE
ANS- 51. 7	Single Failure Criteria for PWR Fluid Systems	ANS-22	Historical				NONE
ANS- 51. 8	Revision and Addendum to Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants ANSI N18.2-1973		Historical				NONE
ANS- 51. 9	Criteria for Remote Shutdown of PWR Plants (N659)		Inactive Project				NONE
ANS- 51. 10	Auxiliary Feedwater System for Pressurized Water Reactors	ANS-22	Current ANSI/ANS	7/25/2002		7/25/2007	Ballot @ CC
ANS- 52	BWR Management Committee		Inactive Project				NONE
ANS- 52. 1	Nuclear Safety Criteria for the Design of Stationary Boiling Water Reactor Plants	ANS-22	Historical				NONE
ANS- 52. 2	Boiling Water Reactor Standby Core and Containment Heat Removal System		Inactive Project				NONE

ANS- 52. 3	Criteria for Safety-Related BWR Operator Actions		Inactive Project	NONE
ANS- 52. 5	Criteria for Remote Shutdown for Boiling Water Reactors		Inactive Project	NONE
ANS- 53	High Temperature Gas-Cooled Reactor Management Committee	ANS-28	Inactive Project	NONE
ANS- 53. 1	Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants	ANS-28	Active Project	CC Ballot Comment w/ W C
ANS- 53. 2	Radioactive Gas Waste System for the Stationary Gas-Cooled Reactor Plant	ANS-28	Inactive Project	NONE
ANS- 53. 3	Gas Cooled Reactor Plant Reactor Core Assembly System	ANS-28	Inactive Project	NONE
ANS- 53. 4	Gas-Cooled Reactor Plant Containment System	ANS-28	Inactive Project	NONE
ANS- 53. 5	Gas-Cooled Reactor Plant Containment System	ANS-28	Inactive Project	NONE
ANS- 53. 6	Gas-Cooled Reactor Plant Reactivity Control System	ANS-28	Inactive Project	NONE
ANS- 53. 8	High Temperature Gas-Cooled Reactor Fuel Handling System Design	ANS-28	Inactive Project	NONE
ANS- 53. 9	Gas-Cooled Reactor Plant Containment Atmospheric Clean-Up System	ANS-28	Inactive Project	NONE
ANS- 53. 10	Gas-Cooled Reactor Plant Electric Power Systems	ANS-28	Inactive Project	NONE
ANS- 53. 11	Gas-Cooled Reactor Plant Protection System	ANS-28	Inactive Project	NONE
ANS- 53. 12	Gas-Cooled Reactor Plant Core Auxiliary Cooling System	ANS-28	Inactive Project	NONE
ANS- 53. 13	Stationary Gas-Cooled Reactor Plant Helium Purification System	ANS-28	Inactive Project	NONE
ANS- 53. 14	Gas-Cooled Reactor Plant Helium Storage System	ANS-28	Inactive Project	NONE
ANS- 53. 15	Design Criteria for the Reactor Cooling Water System of Gas-Cooled Reactor Plants	ANS-28	Inactive Project	NONE
ANS- 53. 16	Design Criteria for the Service Water System of Gas-Cooled Reactor Plants	ANS-28	Inactive Project	NONE
ANS- 53. 17	Gas-Cooled Reactor Plant New Fuel Storage System	ANS-28	Inactive Project	NONE
ANS- 53. 18	Gas-Cooled Reactor Plant Liquid Nitrogen System	ANS-28	Inactive Project	NONE
ANS- 53. 19	Gas-Cooled Reactor Plant Chilled Water System	ANS-28	Inactive Project	NONE
ANS- 53. 20	Gas-Cooled Reactor Plant Secondary Coolant Systems	ANS-28	Inactive Project	NONE
ANS- 53. 21	Gas-Cooled Reactor Plant Other Structures	ANS-28	Inactive Project	NONE
ANS- 53. 22	Gas-Cooled Reactor Plant Control Room	ANS-28	Inactive Project	NONE
ANS- 53. 23	Gas-Cooled Reactor Plant Multi-Unit Stations	ANS-28	Inactive Project	NONE
ANS- 53. 24	Gas-Cooled Reactor Plant Radioactive Liquid Waste Systems	ANS-28	Inactive Project	NONE
ANS- 54	Liquid Metal Fast Breeder Reactor (LMFBR)	ANS-22	Inactive Project	NONE

ANS- 54. 1	General Safety Design Criteria for a Liquid Metal Reactor Nuclear Power Plant	ANS-21	Historical					NONE
ANS- 54. 2	Design Bases for Facilities for LMFBR Spent Fuel Storage in Liquid Metal Outside the Primary Coolant Boundary	ANS-22	Historical					NONE
ANS- 54. 3	Principal Design Criteria for LMFBR Containments	ANS-22	Inactive Project					NONE
ANS- 54. 4	Requirements for Sustaining Safe Shutdown in Liquid Metal Cooled Fast Reactors	ANS-22	Inactive Project					NONE
ANS- 54. 6	LMFBR Safety Classification and Related Requirements	ANS-22	Inactive Project					NONE
ANS- 54. 7	Source Terms to be Used in Evaluation of Radiological Site Suitability for LMFBR Power Plants	ANS-22	Inactive Project					NONE
ANS- 54. 8	Liquid Metal Fire Protection in LMR Plants	ANS-22	Historical					NONE
ANS- 54. 9	Environmental Qualification of Safety Related Equipment in LMFBRs	ANS-22	Inactive Project					NONE
ANS- 54. 10	Risk Limit Criteria for LMFBR Design	ANS-22	Inactive Project					NONE
ANS- 54. 11	Application of Risk Limit Criteria for LMFBR Design	ANS-22	Inactive Project					NONE
ANS- 54. 12	Event Categorization Guidelines for LMFBR Design	ANS-22	Inactive Project					NONE
ANS- 54. 13	Requirements for Evaluating the Potential Radiological Consequences of LMFBR Radioactive Gas Process and Storage System Failures	ANS-22	Inactive Project					NONE
ANS- 55	Fuel and Radwaste		Inactive Project					NONE
ANS- 55. 1	Solid Radioactive Waste Processing System for Light-Water-Cooled Reactor Plants	ANS-22	Current ANSI/ANS	6/7/2000	12/31/2008	12/31/2008		NONE
ANS- 55. 2	Liquid Radioactive Waste Processing System for Pressurized Water Reactor Plants		Historical					NONE
ANS- 55. 3	Boiling Water Reactor Liquid Radioactive Waste Processing Systems		Historical					NONE
ANS- 55. 4	Gaseous Radioactive Waste Processing Systems for Light Water Reactor Plants	ANS-22	Current ANSI/ANS	5/14/2007		5/14/2012		NONE
ANS- 55. 5	no title		Inactive Project					NONE
ANS- 55. 6	Liquid Radioactive Waste Processing System for Light Water Reactor Plants	ANS-22	Current ANSI/ANS	5/14/2007		5/14/2012		NONE
ANS- 56	Containment		Inactive Project					NONE
ANS- 56. 1	Containment Hydrogen Control	ANS-24	Inactive Project					NONE
ANS- 56. 2	Containment Isolation Provisions for Fluid Systems After a LOCA	ANS-22	Historical					NONE
ANS- 56. 3	Overpressure Protection of Low Pressure Systems Connected to the Reactor Coolant Pressure Boundary	ANS-22	Historical					NONE
ANS- 56. 4	Pressure and Temperature Transient Analysis for Light Water Reactor Containments	ANS-22	Historical					NONE
ANS- 56. 5	PWR and BWR Containment Spray System Design Criteria	ANS-22	Historical					NONE

ANS- 56. 6	Pressurized Water Reactor Containment Ventilation Systems	ANS-22	Historical					NONE
ANS- 56. 7	Boiling Water Reactor Containment Ventilation Systems	ANS-22	Historical					NONE
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	Current ANSI/ANS	11/27/2002	12/31/2010	12/31/2010		PINS Development
ANS- 56. 9	Environmental Envelopes for Light Water Reactor Nuclear Power Plants	ANS-21	Inactive Project					NONE
ANS- 56. 10	Subcompartment Pressure and Temperature Transient Analysis in LWRs	ANS-24	Historical					NONE
ANS- 56. 11	Design Criteria for Protection Against the Effects of Compartment Flooding in LWR Plants	ANS-24	Historical					NONE
ANS- 56. 12	Environmental Qualifications of Mechanical Equipment for Nuclear Power Plants		Inactive Project					NONE
ANS- 57	Fuel Management Committee		Inactive Project					NONE
ANS- 57. 1	Design Requirements for Light Water Reactor Fuel Handling Systems	ANS-27	Current ANSI/ANS	7/20/2005		7/20/2010		NONE
ANS- 57. 2	Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants	ANS-27	Active Project					CC Ballot Comment w/ W ⤴
ANS- 57. 3	Design Requirements for New Fuel Storage Facilities at LWR Plants	ANS-27	Active Project					CC Ballot Comment w/ W ⤴
ANS- 57. 4	Failed Fuel Detection Systems	ANS-27	Inactive Project					NONE
ANS- 57. 5	Light Water Reactors Fuel Assembly Mechanical Design and Evaluation	ANS-27	Current ANSI/ANS	2/28/2006		2/28/2011		NONE
ANS- 57. 6	Quality Assurance Program Requirements for Design and Manufacture of Fuel for Nuclear Power Plants	ANS-27	Inactive Project					NONE
ANS- 57. 7	Design Criteria for an Independent Spent Fuel Storage Installation (Water Pool Type)	ANS-27	Withdrawn	5/28/1997	5/27/2007			NONE
ANS- 57. 8	Fuel Assembly Identification	ANS-27	Current ANSI/ANS	1/12/2005		1/12/2010		NONE
ANS- 57. 9	Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)	ANS-27	Current ANSI/ANS	6/7/2000	12/31/2008	12/31/2008		NONE
ANS- 57. 10	Design Criteria for Consolidation of LWR Spent Fuel	ANS-27	Current ANSI/ANS	7/6/2006		7/6/2011		NONE
ANS- 58. 1	Plant Design Against Missiles	ANS-21	Inactive Project					NONE
ANS- 58. 2	Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	ANS-24	Active Project					PINS Development
ANS- 58. 3	Physical Protection for Nuclear Safety-Related Systems and Components	ANS-22	Current ANSI/ANS	3/18/08		3/18/2013		NONE
ANS- 58. 4	Criteria for Technical Specifications for Nuclear Power Stations	ANS-21	Historical					NONE
ANS- 58. 5	Probabilistic Risk Assessment	ANS-24	Inactive Project					NONE
ANS- 58. 6	Criteria for Remote Shutdown for Light Water Reactors	ANS-21	Current ANSI/ANS	8/31/2001	12/31/2009	12/31/2009		NONE
ANS- 58. 8	Time Response Design Criteria for Safety-Related Operator Actions	ANS-22	Current ANSI/ANS	7/23/2001	12/31/2009	12/31/2009		CC Ballot Comment w/ W ⤴
ANS- 58. 9	Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems	ANS-22	Current ANSI/ANS	8/14/2002	12/31/2010	8/14/2007		NONE

ANS- 58. 10	Realistic Methods for LWR Event Analysis	ANS-24	Inactive Project				NONE
ANS- 58. 11	Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	ANS-22	Current ANSI/ANS	7/23/2002	12/31/2010	12/31/2010	NONE
ANS- 58. 12	Criteria for Availability of AC Power at Light Water Reactor Power Plants	ANS-21	Inactive Project				NONE
ANS- 58. 14	Safety and Pressure Integrity Classification Criteria for Light Water Reactors	ANS-22	Active Project				WG Writing Draft
ANS- 58. 15	Criteria for Severe Accident Evaluation	ANS-24	Inactive Project				NONE
ANS- 58. 16	Safety and Pressure Integrity Classification for Non-Reactor Nuclear Facilities	ANS-22	Active Project				WG Writing Draft
ANS- 58. 20	Program for Collection of Reliability Data on Nuclear Power Plant Protection and Engineered Safety Systems and Components		Historical				NONE
ANS- 59			Inactive Project				NONE
ANS- 59. 1	Nuclear Safety Related Cooling Water Systems for Light Water Reactors	ANS-22	Historical				NONE
ANS- 59. 2	Safety Criteria for HVAC Systems Located Outside Primary Containment	ANS-22	Historical				NONE
ANS- 59. 3	Nuclear Safety Criteria for Control Air Systems	ANS-22	Current ANSI/ANS	8/30/2002	12/31/2010	12/31/2010	NONE
ANS- 59. 4	Generic Requirements for Light Water Nuclear Power Plant Fire Protection		Historical				NONE
ANS- 59. 6	Requirements for Fire Hazard Analysis at Light Water Nuclear Power Plants		Inactive Project				NONE
ANS- 59. 7	Control Room HVAC		Inactive Project				NONE
ANS- 59. 51	Fuel Oil Systems for Safety-Related Emergency Diesel Generators	ANS-22	Current ANSI/ANS	10/4/2007		10/4/2012	NONE
ANS- 59. 52	Lubricating Oil Systems for Safety-Related Emergency Diesel Generators	ANS-22	Current ANSI/ANS	10/4/2007		10/4/2012	NONE
ANS- 59. 53	Starting Air Systems for Standby Diesel Generators	ANS-22	Inactive Project				NONE
ANS- 59. 54	Combustion Air Systems for Standby Diesel Generators	ANS-22	Inactive Project				NONE
ANS- 59. 55	Coolant System for Standby Diesel Generators	ANS-22	Inactive Project				NONE

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Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 8	Fissionable Materials Outside Reactors		Inactive Project				NONE
ANS- 8 . 1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	ANS-8	Current ANSI/ANS	5/16/2007		5/16/2012	WG Writing Draft
ANS- 8 . 2	Proposed Standard on Computer Codes -- never named	ANS-8	Inactive Project				NONE
ANS- 8 . 3	Criticality Accident Alarm System	ANS-8	Current ANSI/ANS	6/12/2003		6/12/2008	PINS Development

ANS- 8 . 4	Proposed Standard on Shipping Containers -- not named	ANS-8	Inactive Project				NONE
ANS- 8 . 5	Use of Borosilicate-Glass Raschig Rings as a Neutron Absorber in Solutions of Fissile Material	ANS-8	Current ANSI/ANS	5/14/2007		5/14/2012	NONE
ANS- 8 . 6	Safety in Conducting Subcritical Neutron-Multiplication Measurements in Situ	ANS-8	Current ANSI/ANS	7/23/2001	12/31/2009	12/31/2009	NONE
ANS- 8 . 7	Nuclear Criticality Safety in the Storage of Fissile Materials	ANS-8	Current ANSI/ANS	9/12/2007		9/12/2012	NONE
ANS- 8 . 7 . 1	Storage of Fissile Material	ANS-8	Inactive Project				NONE
ANS- 8 . 8	Criticality Safety Limits for Special Applications	ANS-8	Inactive Project				NONE
ANS- 8 . 9	Nuclear Criticality Safety Guide for Pipe Intersections Containing Aqueous Solutions of Enriched Uranyl Nitrate	ANS-8	Historical				NONE
ANS- 8 . 9 . 1	Nuclear Criticality Safety Criteria for Steel-Pipe Intersections Containing Aqueous Solutions of Fissile Materials	ANS-8	Historical				NONE
ANS- 8 . 10	Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement	ANS-8	Current ANSI/ANS	4/1/2005		4/1/2010	WG Writing Draft
ANS- 8 . 11	Validation of Calculational Methods for Nuclear Criticality Safety	ANS-8	Historical				NONE
ANS- 8 . 12	Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors	ANS-8	Current ANSI/ANS	3/20/2002	12/31/2010	12/31/2010	WG Writing Draft
ANS- 8 . 13. 1	Criteria for Establishing and Applying a Solid Angle Method for Nuclear Criticality Safety		Inactive Project				NONE
ANS- 8 . 13. 2	Guide for Evaluating Interaction Between Units of Low Enriched Uranium Using the Surface Density Method		Inactive Project				NONE
ANS- 8 . 14	Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	Current ANSI/ANS	5/25/2004		5/25/2009	NONE
ANS- 8 . 15	Nuclear Criticality Control of Selected Actinide Nuclides	ANS-8	Current ANSI/ANS	7/15/2005		7/15/2010	WG Writing Draft
ANS- 8 . 16	Maximum Subcritical Limits for Slightly Enriched Uranium Compounds Processed in LWR Fuel Cycle	ANS-8	Inactive Project				NONE
ANS- 8 . 17	Criticality Safety Criteria for the Handling, Storage and Transportation of LWR Fuel Outside Reactors	ANS-8	Current ANSI/ANS	11/03/2004		11/3/2009	NONE
ANS- 8 . 18	Use of Chlorinated Polyvinyl Chloride (CPVC) as a Neutron Absorber	ANS-8	Inactive Project				NONE
ANS- 8 . 19	Administrative Practices for Nuclear Criticality Safety	ANS-8	Current ANSI/ANS	5/16/2005		5/16/2010	WG Writing Draft
ANS- 8 . 20	Nuclear Criticality Safety Training	ANS-8	Current ANSI/ANS	9/16/2005		9/16/2010	PINS Development
ANS- 8 . 21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	Current ANSI/ANS	7/23/2001	12/31/2009	12/31/2009	WG Writing Draft
ANS- 8 . 22	Nuclear Criticality Safety Based on Limiting and Controlling Moderators	ANS-8	Current ANSI/ANS	12/8/2006		12/8/2011	NONE
ANS- 8 . 23	Nuclear Criticality Accident Emergency Planning and Response	ANS-8	Current ANSI/ANS	3/23/2007		3/23/2012	NONE
ANS- 8 . 24	Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations	ANS-8	Current ANSI/ANS	3/16/2007		3/16/2012	NONE
ANS- 8 . 25	Development of Nuclear Criticality Safety Related Postings	ANS-8	Active Project				SB PINS Comments w/ WG

ANS- 8 . 26	Criticality Safety Engineer Training and Qualification Program	ANS-8	Current ANSI/ANS	6/20/2007	6/20/2012	NONE
ANS- 8 . 27	Burnup Credit for LWR Fuel	ANS-8	Active Project			CC Ballot Comment w/ W C

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Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 1	Conduct of Critical Experiments	ANS-1	Current ANSI/ANS	10/11/2007		10/11/2012	PINS Development
ANS- 5	Energy and Fission Product Release, a management committee of NUPPSO		Inactive Project				NONE
ANS- 5 . 1	Decay Heat Power in Light Water Reactors	ANS-19	Current ANSI/ANS	4/1/2005		4/1/2010	WG Writing Draft
ANS- 5 . 3	Fission Product Release to the Coolant of Light Water Reactors from Failed or Defective Fuel		Inactive Project				NONE
ANS- 5 . 6	Radiation Protection Design Criteria		Inactive Project				NONE
ANS- 5 . 6 . 1	Criteria for Accident Shielding		Inactive Project				NONE
ANS- 5 . 7 . 1	Post Accident Sampling		Inactive Project				NONE
ANS- 5 . 8	Delayed Neutron Data		Inactive Project				NONE
ANS- 6	Radiation Protection and Shielding	ANS-6	Inactive Project				NONE
ANS- 6 . 1 . 1	Neutron and Gamma-Ray Fluence-To-Dose Factors	ANS-6	Active Project				PINS Development
ANS- 6 . 1 . 2	Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	ANS-6	Current ANSI/ANS	2/11/1999	2/10/2009	2/10/2009	WG Writing Draft
ANS- 6 . 2 . 1	Shielding Benchmark Problems	ANS-6	Inactive Project				NONE
ANS- 6 . 2 . 2	Benchmark Problems for Radiation Energy Spectra Unfolding		Inactive Project				NONE
ANS- 6 . 3 . 1	Program for Testing Radiation Shields in Light Water Reactors (LWR)	ANS-6	Current ANSI/ANS	4/20/2007		4/20/2012	PINS Development
ANS- 6 . 4	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	ANS-6	Current ANSI/ANS	9/29/2006		9/29/2011	NONE
ANS- 6 . 4 . 2	Specification for Radiation Shielding Materials	ANS-6	Current ANSI/ANS	9/28/2006		9/28/2011	NONE
ANS- 6 . 4 . 3	Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering Materials	ANS-6	Active Project				PINS Development
ANS- 6 . 5	Glossary of Terms in Shielding and Dosimetry		Inactive Project				NONE
ANS- 6 . 6 . 1	Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants	ANS-6	Current ANSI/ANS	3/5/2007		3/5/2012	PINS Development
ANS- 6 . 6 . 2	Standard on Neutron Air Scattering		Inactive Project				NONE
ANS- 6 . 7 . 1	Radiation Zoning for Design of Nuclear Power Plants		Inactive Project				NONE

ANS- 6 . 7 . 2	Radiation Zoning of LWR Plants for Accident Conditions		Inactive Project					NONE
ANS- 6 . 8 . 1	Location and Design Criteria for Area Radiation Monitoring Systems for Light Water Nuclear Reactors (under ANS-5)	ANS-5	Historical					NONE
ANS- 6 . 8 . 2	Selection of and Design Criteria for Continuous Process and Effluent Radiation Monitors for Light Water Reactors (under ANS-5)	ANS-5	Inactive Project					NONE
ANS- 6 . 9	Criteria for Post Accident Radiological Control	ANS-6	Inactive Project					NONE
ANS- 6 . 9	Designing for Post-Accident Radiological Conditions		Inactive Project					NONE
ANS- 7 . 4 . 3	Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations		Historical					NONE
ANS- 10	Mathematics and Computation		Inactive Project					NONE
ANS- 10. 2	Portability of Scientific and Engineering Software	ANS-10	Current ANSI/ANS	12/20/2000	12/31/2008	12/31/2008		NONE
ANS- 10. 3	Documentation of Computer Software	ANS-10	Active Project					PINS Development
ANS- 10. 4	Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry	ANS-10	Current ANSI/ANS	8/12/1998	8/11/2008	8/11/2008		CC Ballot Comment w/ W C
ANS- 10. 5	Accommodating User Needs in Scientific and Engineering Computer Software Development	ANS-10	Current ANSI/ANS	4/17/2006		4/17/2011		NONE
ANS- 10. 6	Guidelines for Tailoring Computer Standards to the Creation and Control of Nuclear Industry Software		Inactive Project					NONE
ANS- 10. 7	Non-Real Time, High Integrity Software for the Nuclear Industry	ANS-10	Active Project					WG Writing Draft
ANS- 14	Fast Pulse Reactors	ANS-14	Inactive Project					NONE
ANS- 14. 1	Operation of Fast Pulse Reactors	ANS-14	Current ANSI/ANS	4/23/2004		4/23/2009		NONE
ANS- 15	Operations of Research Reactors	ANS-15	Inactive Project					NONE
ANS- 15. 1	The Development of Technical Specifications for Research Reactors	ANS-15	Current ANSI/ANS	4/20/2007		4/20/2012		NONE
ANS- 15. 2	Quality Control for Plate-Type Uranium-Aluminum Fuel Elements	ANS-15	Current ANSI/ANS	3/11/1999	12/31/2007	12/31/2007		WG Writing Draft
ANS- 15. 3	Records and Reports for Research Reactors	ANS-15	Inactive Project					NONE
ANS- 15. 4	Selection and Training of Personnel for Research Reactors	ANS-15	Current ANSI/ANS	8/17/2007		8/17/2012		NONE
ANS- 15. 5	Never Titled		Inactive Project					NONE
ANS- 15. 6	Review of Experiments for Research Reactors		Inactive Project					NONE
ANS- 15. 7	Research Reactor Site Evaluation	ANS-15	Historical					NONE
ANS- 15. 8	Quality Assurance Program Requirements for Research Reactors	ANS-15	Current ANSI/ANS	9/14/2005		9/14/2010		WG Writing Draft
ANS- 15. 9	Never Titled	ANS-15	Inactive Project					NONE
ANS- 15. 10	Decommissioning of Research Reactors	ANS-15	Active Project					WG Writing Draft

ANS- 15. 11	Radiation Protection at Research Reactors	ANS-15	Current ANSI/ANS	5/27/2004		5/27/2009	CC Ballot Comment w/ W ⌈
ANS- 15. 12	Design Objectives for and Monitoring of Systems Controlling Research Reactor Effluents	ANS-15	Historical				NONE
ANS- 15. 14	Design Objectives for and Monitoring of Systems Controlling Research Reactor Effluents	ANS-15	Inactive Project				NONE
ANS- 15. 15	Criteria for the Reactor Safety Systems of Research Reactors	ANS-15	Historical				NONE
ANS- 15. 16	Emergency Planning for Research Reactors	ANS-15	Current ANSI/ANS	5/3/2000	12/31/2008	12/31/2008	CC Ballot Comment w/ W ⌈
ANS- 15. 17	Fire Protection Program Criteria for Research Reactors	ANS-15	Current ANSI/ANS	5/3/2000	12/31/2008	12/31/2008	WG Writing Draft
ANS- 15. 18	Administrative Controls for Research Reactors	ANS-15	Historical				NONE
ANS- 15. 19	Shipment and Receipt of Special Nuclear Material (SNM) by Research Reactor	ANS-15	Active Project				CC Ballot Comment w/ W ⌈
ANS- 15. 20	Criteria for the Reactor Control and Safety Systems of Research Reactors	ANS-15	Active Project				PINS Development
ANS- 15. 21	Format and Content for Safety Analysis Reports for Research Reactors	ANS-15	Current ANSI/ANS	9/29/2006		9/29/2011	SB PINS Comments w/ WG
ANS- 19	Physics of Reactor Design	ANS-19	Inactive Project				NONE
ANS- 19. 1	Nuclear Data Sets for Reactor Design Calculations	ANS-19	Current ANSI/ANS	7/23/2002		7/23/2007	WG Writing Draft
ANS- 19. 2	Definitions of Reactor Physics Terms and Parameters	ANS-19	Inactive Project				NONE
ANS- 19. 2 . 1	Terms and Definitions for Breeder Reactor Systems	ANS-19	Inactive Project				NONE
ANS- 19. 3	Determination of Steady-State Neutron Reaction-Rate Distributions and Reactivity of Nuclear Power Reactors -- Slight change 2005 Added "Power"	ANS-19	Current ANSI/ANS	9/16/2005		9/16/2010	PINS Development
ANS- 19. 3 . 4	The Determination of Thermal Energy Deposition Rates in Nuclear Reactors	ANS-19	Current ANSI/ANS	3/20/2002	12/31/2010	12/31/2010	NONE
ANS- 19. 4	A Guide for Acquisition and Documentation of Reference Power Reactor Physics Measurements for Nuclear Analysis Verification	ANS-19	Current ANSI/ANS	5/3/2000	12/31/2008	12/31/2008	PINS Development
ANS- 19. 5	Requirements for Reference Reactor Physics Measurements	ANS-19	Historical				NONE
ANS- 19. 6 . 1	Reload Startup Physics Tests for Pressurized Water Reactors	ANS-19	Current ANSI/ANS	11/29/2005		11/29/2010	WG Writing Draft
ANS- 19. 7	Calculation of Doppler Reactivity for Use in Thermal Light Water Reactor Safety Analysis (New)	ANS-19	Inactive Project				NONE
ANS- 19. 8	Fission Product Yields for 235U, 238U, and 239P	ANS-19	Active Project				NONE
ANS- 19. 9	Delayed Neutron Parameters for Light Water Reactors	ANS-19	Active Project				WG Writing Draft
ANS- 19. 10	Methods for Determining Neutron Fluence in BWR and PWR Pressure Vessel and Reactor Internals	ANS-19	Active Project				WG Writing Draft
ANS- 19. 11	Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors (for RV of 1997 issue)	ANS-19	Current ANSI/ANS	12/17/2002	12/31/2010	12/31/2010	WG Writing Draft
ANS- 19. 12	Nuclear Data for the Production of Radioisotope	ANS-19	Active Project				WG Writing Draft
ANS- 54. 4	Nonmetallic Thermal Insulation for Austenitic Stainless Steel in LMFBRs		Inactive Project				NONE

ANS- 58. 13	Design for Post-Accident Access External to LWR Primary Reactor Containments	ANS-5	Inactive Project	NONE
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RISC

Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 58. 21	External-Events PRA Methodology	RISC	Current ANSI/ANS	3/1/2007		3/1/2012	NONE
ANS- 58. 22	Low Power and Shutdown PRA Methodology	RISC	Active Project				CC Ballot Comment w/ W
ANS- 58. 23	Fire PRA Methodology	RISC	Active Project	11/20/2007			NONE
ANS- 58. 24	Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications	RISC	Active Project				WG Writing Draft
ANS- 58. 25	Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications	RISC	Active Project				WG Writing Draft

None

Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS-			Inactive Project				NONE
ANS-							NONE
ANS- 7 . 20	Proposed Guide for the Design of a Nuclear Pool Facility -- draft	ANS-7	Inactive Project				NONE
ANS- 9	Glossary of Terms in Nuclear Science and Technology		Historical				NONE
ANS- 9 . 1	Health Physics		Inactive Project				NONE
ANS- 9 . 2	Shielding		Inactive Project				NONE
ANS- 9 . 3	Regulatory Guide		Inactive Project				NONE
ANS- 9 . 4	Utility		Inactive Project				NONE
ANS- 9 . 5	Safeguards		Inactive Project				NONE
ANS- 9 . 6	Glossary Liaison		Inactive Project				NONE
ANS- 9 . 7	Special Activities		Inactive Project				NONE
ANS- 9 . 8	Fusion Term		Inactive Project				NONE
ANS- 10. 1	Nuclear Reactor Classification System		Historical				NONE

ANS- 11	Design Guides for Radioactive Materials Handling Facility and Specialized Equipment	Inactive Project	NONE
ANS- 11. 1	General Criteria for Design, Construction, Operation, Maintenance, and Decommissioning for Radioactive Materials Handling Facilities	Inactive Project	NONE
ANS- 11. 2		Inactive Project	NONE
ANS- 11. 3	Shielding Wall Service Penetrations	Inactive Project	NONE
ANS- 11. 4	Direct View Windows	Inactive Project	NONE
ANS- 11. 6	Direct Viewing/TV-Audio	Inactive Project	NONE
ANS- 11. 7	Access Doors and Transfer Devices for Personnel and Equipment	Inactive Project	NONE
ANS- 11. 8	Illumination	Inactive Project	NONE
ANS- 11. 9	Manipulators, Auxilliary Tools and Remote Handling Devices	Inactive Project	NONE
ANS- 11. 11		Inactive Project	NONE
ANS- 11. 12	Hot Cell Atmosphere Control Systems	Inactive Project	NONE
ANS- 11. 13	Concrete Radiation Shields	Historical	NONE
ANS- 11. 13	In-Cell Utility Requirements	Historical	NONE
ANS- 11. 14	Design Guide for Fire Prevention, Detection and Control for Radioactive Materials Handling Facilities	Inactive Project	NONE
ANS- 11. 15	Wall Finishes and Protective Coatings	Inactive Project	NONE
ANS- 11. 16	Gloveboxes	Inactive Project	NONE
ANS- 11. 17	Operations and Maintenance of Radioactive Materials Handling Facilities	Inactive Project	NONE
ANS- 11. 18	Decontamination and Decommissioning	Inactive Project	NONE
ANS- 13		Inactive Project	NONE
ANS- 16	Isotopes and Radiation	Inactive Project	NONE
ANS- 18	Environmental Impact Evaluation	Inactive Project	NONE
ANS- 18. 2	Environmental Monitoring and Data Evaluation	Inactive Project	NONE
ANS- 18. 2 . 1	Methods for Inferring Environmental Doses	Inactive Project	NONE
ANS- 18. 2 . 2	Specific Environmental Monitoring Program to Assess Operational Dose from LWR Power Reactors	Inactive Project	NONE
ANS- 18. 3 . 1	Entrainment: Guide to Steam Electric Power Plant Cooling System Siting, Design and Operation for Controlling Damage to Aquatic Organisms	Inactive Project	NONE
ANS- 18. 3 . 2	Cold Shock: Guide to Steam Electric Power Plant Cooling System Siting, Design and Operation for Controlling Damage to Aquatic Organisms	Inactive Project	NONE

ANS- 18. 3 . 3	Entrapment/Impingement: Guide to Steam Electric Power Plant Cooling System Siting, Design and Operation for Controlling Damage to Aquatic Organisms at Water Intake Structures	Inactive Project	NONE
ANS- 18. 4	Aquatic Ecological Surveys Required for Siting, Design, and Operation of Thermal Power Plants	Inactive Project	NONE
ANS- 18. 6	Discharge of Thermal Effluents into Surface Waters	Inactive Project	NONE
ANS- 18. 7	Control and Monitoring of the Discharge of Chemicals	Inactive Project	NONE
ANS- 18. 8	Guidelines for Environmental and Economic Analysis of the Regional Effects of Power Facilities	Inactive Project	NONE
ANS- 40. 6	Design Guide for a Radioisotope Laboratory (Type B)	Inactive Project	NONE
ANS- 40. 31	Collection and Storage of Waste for Disposal at Disposal Sites	Inactive Project	NONE
ANS- 40. 32	Compaction of Wastes for Disposal at Disposal Sites	Inactive Project	NONE
ANS- 60	Power Plant Productivity Definitions	Inactive Project	NONE

June 9, 2008

From: Don Spellman, Liaison to IEEE/NPEC and ISO TC-85

IEEE NPEC Liaison Report

The IEEE Nuclear Power Engineering Committee (NPEC) Chair is Scott Malcolm from Westinghouse and has 33 members. The committee meets in January and July each year not always at the same time as the IEEE national meetings. Their next meeting is July 14 – 16, 2008 in Toronto, Canada.

Some minor points from their last meeting minutes of January 2008 are:

- They have recently published a joint logo standard with IEC that is the previous IEEE 1082. Another joint standard on condition monitoring is in the works.
- NPEC schedules and funds their own meetings from a fund that they use
- NPEC is reviewing the GEH design documents for the ESBWR to determine which IEEE standards may be needed to support this reactor
- Each subcommittee chair is required to preview a standard or report the details of a Work-in-Progress standard at each committee meeting
- The NPEC NEI representative is Wes Bowers, now retired from Entergy
- IEEE has just published a new Style Manual

ISO TC-85 Liaison Report

The next TC-85 meeting is next week, June 16 -19, 2008 in Orlando, Florida. Meeting materials have not been published at this time. At the meeting, the draft ANS 53.1 will be presented for possible adoption as a joint ISO/ANS standard. A synopsis of this meeting will be provided as part of this liaison report to be included as an appendix to the NFSC June meeting minutes.