American Nuclear Society (ANS)
Standards Board (SB) Minutes
Washington, DC
November 17, 2009

Members Present
N. Prasad Kadambi, *Standards Board Chair, Individual*
Donald J. Spellman, *Standards Board Vice-Chair, ORNL*
Allen L. Camp, *RISC Chair*, *Sandia National Laboratories*
Walter Justice, *Tennessee Valley Authority*
Herbert Massie, *Defense Nuclear Facilities Safety Board*
Carl A. Mazzola, *NFSC Chair, Shaw Environmental and Infrastructure, Inc.*
Charles H. (Chuck) Moseley, *Member at Large, Individual*
Calvin M. Hopper, *N16 Chair, Individual*
Mathew Panicker, *U.S. Nuclear Regulatory Commission*
Tawfik M. Raby, *N17 Chair, NIST*
Patricia A. Schroeder, *Standards Administrator, American Nuclear Society*
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*
Steven L. Stamm, *Member at Large, Shaw Nuclear Services*
R. Michael Ruby, *Member at Large, Constellation Energy-Ginna NPP*

Guests
James August, *CORE, Inc.*
Richard Black, *U.S. Department of Energy*
Robert J. Budnitz, *Lawrence Berkeley National Laboratory*
C. Rick Grantom, *STNOP*
Thomas McLaughlin, *Individual*
Craig Piercy, *ANS*
William Reuland, *Individual*

1. Welcome and Introductions
Introductions were made, and Standards Board Chair Prasad Kadambi welcomed the new members.

2. Approve Agenda
The agenda was approved as presented.

3. Standards Board Chair's Report

Board of Directors (BOD) Report
Prasad Kadambi explained that his BOD presentation (see Attachment A) was a request for more support for standards. He stated that he doesn't believe that the primary users of standards were providing sufficient support to the program. Kadambi saw a separation of the standards community and the technical side of American Nuclear Society (ANS) activities. Calvin Hopper clarified that the standards members under the N16 Committee were extremely involved in the technical and administrative sides of ANS. Tawfik Raby expressed his sentiment that the disconnect was more of an issue with the Nuclear

Facilities Standards Committee (NFSC). Carl Mazzola agreed that many of the NFSC members had no interest in activities outside standards meetings, which is why he presented the concept of Division liaisons at the Professional Divisions Committee (PDC) meeting during the 2009 Annual Meeting. Hopper felt that standards meetings held during sessions were counter-productive. Mazzola thought that the NFSC had isolated itself. Allen Camp stated that he felt activities under the Risk Informed Standards Committee (RISC) were well-supported by the Nuclear Installations Safety Division (NISD) and the industry. He cited that past NISD chairs had served as RISC Chairs. However, Camp noted that the RISC struggled with resources for meetings (i.e., teleconferences, audio/visual equipment). Kadambi sees this issue as a problem and would like the ANS family to correct it. He proposed that the ANS Membership Committee needed to find ways to attract more standards members to attend meetings. Robert Budnitz suggested that specific ideas for support be provided to BOD members. Jim August felt that these concerns were not unique to ANS but that industry needed to see value. Don Spellman mentioned letters he had sent to NFSC members' management enlisting support that were beneficial. Members were in agreement that the Standards Committee could benefit from additional staff support and information technology resources.

Realignment of the Standards Board and Its Activities

Kadambi explained that each year a new ANS President-elect reviewed Standards Board membership. Recently the incoming President questioned why there were so many members that were on the Standards Board for more than two terms as stipulated by the ANS Bylaws. Kadambi explained that the chair served at the pleasure of the ANS President, and that the chair needs help in soliciting new members. At the same time, the chair needs to be involved in selecting new members who would be most effective in directing the efforts of the Standards Committee. Kadambi noted that he would be meeting with the incoming President and discussing potential new members. As this was his fourth year, he was not sure how much longer he would remain chair. Kadambi stated that, as chair, he would like to see the Standards Board add value to the work of the Standards Committee and would like to see the Standards Board set more policy and provide more direction. Kadambi said that he planned to speak with Standards Board members individually regarding continued membership.

Resources for Standards Development

In addition to what was previous discussed, Kadambi stated that we needed to more actively find sources for support, perhaps by going back to where we have previously received support. The U. S. Nuclear Regulatory Commission (NRC) had been a solid supporter of the RISC standards. Kadambi informed members that he spoke with the NRC Standards Executive, Michael Case, and provided a summary of the meeting. He explained that, while one purpose of the meeting was to get the Standards Executive's attention that the ANS-58.14 Working Group did not have NRC participation, additional topics were discussed.

A topic of interest is that regulatory documents cite standards that do not meet ANSI's "Essential Requirements." Kadambi also explained that standards that were not maintained in compliance with ANSI's "Essential Requirements" could not be considered current American National Standards. He stated that it was a fact that most documents referenced by NRC were not current American National Standards. Kadambi noted that he confirmed with the American National Standards Institute (ANSI) that it was the intent of National Technology Transfer and Advancement Act of 1995 for Federal organizations to use American National Standards, and we should be working toward this goal.

Kadambi also spoke to Case about NRC's long-term commitment to supporting the Nuclear Energy Standards Coordination Collaborative (NESCC). Kadambi provided the

background of a situation with General Electric (GE) citing withdrawn standard ANSI/ANS-58.14-1993 (W2003), "Safety and Pressure Integrity Classification Criteria for Light Water Reactors." Because the standard had been withdrawn, the NRC requested that GE submit the standard to NRC for review. Rather than face the expense of having the NRC review an ANS standard, GE decided to remove the reference to ANSI/ANS-58.14-1993 to solve the problem. However, it appears that, ANSI/ANS-58.14-1993 continues to be the functional basis for the classification of systems in documents submitted to NRC. Kadambi stated his position that using the standard without properly citing it was unfair to the volunteers who worked hard to generate the standard. Also, such actions would appear to be contrary to the Government's position that development and use of standards is to be encouraged.

Lastly, Kadambi reported that he discussed support for the formation of cooperative efforts domestically and internationally with Case.

Status of Standards Committee Rules & Procedures Revision

Standards Board members were informed that the revised ANS Standards Committee Rules and Procedures had been approved by ANSI as of November 4, 2009. With ANSI approval, the new balance of interest (BOI) categories would be in effect. Pat Schroeder stated that she would work with each consensus committee chair to update their BOI.

4. Nuclear Energy Standards Coordination Collaborative (NESCC)

Webinar on Conformity Assessment

Prasad Kadambi explained that the most recent activity of the NESCC was a webinar on conformity assessment. In addition to Kadambi, Calvin Hopper, Allen Camp, Herbert Massie participated. Kadambi felt that the webinar technology was well received. Kadambi felt that there could be a need for conformity assessment with the RISC probabilistic risk assessment (PRA) standards. Camp stated that the RISC would discuss training needs at their meeting the following day but that the RISC had decided not to write training standards. Rick Grantom explained that the American Society of Mechanical Engineers (ASME) had taken on some training issues for ASME PRA standards. Conformity was not just the users' job, but also the regulator's responsibility.

Kadambi stated that he submitted a proposal to the NESCC for a task group to establish a conformity assessment program for ANS-ASME PRA standards on behalf of the ANS. Kadambi felt that the NESCC was the forum to do things better in this round of new nuclear power plants given that some people felt that some of the problems encountered in the building of the currently operating plants could be labeled as conformity assessment issues.

Kadambi introduced Richard Black as a manager at the U.S. Department of Energy (DOE) and explained that he was working closely with the NESCC. Black stated that the NESCC had a goal of acquiring and maintaining a complete list of standards that included regulatory endorsement and references. He felt that this baseline was significant in determining future needs and planning. Additionally Black stated that the NESCC could help in resolving conflicts between standards developing organizations (SDOs). He requested that ANS representatives provide suggestions. Black confirmed that the DOE would be providing support to ANSI and the National Institute of Standards and Technology (NIST) to fund standards development.

5. Nuclear Risk Management Coordinating Committee (NRMCC)

Progress Update

Chuck Moseley provided an update on NRMCC activities. He stated that there had not been much new since his report at the last Standards Board meeting other than the March 2009 Regulatory Guide endorsement of the joint standard. Moseley stated that there was some merit in merging the ASME Committee on Nuclear Risk Management (CNRM) and the RISC committees together. He complimented Camp and Grantom in their efforts to work together. Robert Budnitz noted that a representative from the Institute of Electrical and Electronics Engineers (IEEE) was in attendance at the last NRMCC meeting. Grantom acknowledged risk methodologies being included in standards in development that do not have the appropriate risk expertise. He sees the membership of NRMCC growing. Budnitz noted that the NRMCC has seen significant participation by the Nuclear Energy Institute, NRC, DOE.

Proposal on Joint RISC/CNRM Committee

Camp explained that he was struggling with the process of forming a joint committee with the RISC and CNRM. Don Spellman expressed concern with the formation of a joint consensus committee that isolated IEEE and other SDOs. Camp provided a handout with a proposal to merge the two committees (See Attachment B). He explained that the standards developed by RISC and CNRM essentially go together and writing groups have worked closely together. Input from members on both sides recommended that the two committees should be merged. The current proposal for the merger used an ASME and the American Petroleum Institute (API) joint committee as an example. Camp recognized Spellman's concerns about excluding other SDOs and stated that he would address at the NRMCC meeting scheduled for November 18, 2009.

Camp explained the proposed organizational structure for the joint committee, tentatively named as the Joint Committee on Nuclear Risk Management (JCNRM). He stated that all standards would go to both boards for approval. Current members of RISC and CNRM would be invited to the join the JCNRM. Protecting the interest of each society would be handled by its officers. The goal of this initiative would be to get the right people on the committee while maintaining an appropriate balance of interest. Robert Budnitz clarified that membership on the joint committee with the exception of the chairs would not recognize membership of either society as a factor. Both RISC and CNRM would cease to exist and a number of new subcommittees of the JCNRM would be created. A standards planning subcommittee would help identify the need for new standards and would determine which society was best suited to take the lead. Balloting would be done by the JCNRM but follow the accredited procedures of the society in charge. Kadambi stated that he would want the Standards Board to approve assignments of new standards projects. He also stated his view that the responsibility of any such joint committee should include the entire life cycle of the standards produced and not merely the production of the standards document.

Tawfik Raby also expressed his concern about excluding other SDOs and had reservations about ANS losing technical control of standards developed by the JCNRM. In general, Standards Board members agreed with concerns about forming an exclusive joint consensus committee but felt that the exploratory steps being taken are worthwhile. Camp stated that he would review the proposal with the RISC and the NMRCC at their upcoming meetings later that week.

While not all members were in agreement, the direction to continue preparing the proposal to merge the RISC and CNRM committees was allowed to proceed.

The following motion was made:

MOTION: To accept Allen Camp's proposal on the formation on a joint consensus committee with ASME as presented.

The motion was approved with one opposed vote. Tawfik Raby complimented Camp's and Grantom's efforts but asked that the record show his underlying concern with society technical control.

6. Clarification and Generic Interpretation Policy Update

As a result of recent and past activities, Calvin Hopper felt the policy on handling requests for clarifications and interpretations should be changed. Hopper provided background information about the current policy and a proposed revised policy (See Attachment C). Prasad Kadambi reminded members that a clarification provided additional information on a requirement without resulting in a change to the requirement while a generic interpretation affected compliance with a requirement. Hopper explained that he had concerns with the determination on whether the inquiry was deemed a request for clarification or an interpretation. The policy currently held the Standards Board Chair responsible for this action. Kadambi felt that this practice helped expedite the process. Furthermore, if others did not agree with the determination, he expected that he would be questioned. Tawfik Raby stated that he wanted to keep the direction of the response the same in that it would be initiated by the working group, reviewed by the subcommittee, and then the consensus committee.

The following motion was made:

MOTION: To approve Calvin Hopper's proposed changes to the policy on clarifications and interpretations.

As members felt they needed additional time to review the Hopper's proposal, the motion was not seconded.

The following new motion was made:

MOTION: To table the motion for consideration at a later time.

The motion was approved with one member opposed.

Kadambi asked for Standards Board members to review the proposed changes to the policy on clarifications and interpretations and provide their comments and approval by the end of the year. A new action item was not assigned as there was a current open action item for members to comment on the proposed changes.

7. Regulatory Products Influence of Working Groups

Calvin Hopper explained that it was his position that developing a standard for regulatory purposes was inappropriate. Kadambi added that working groups should not be unnecessarily influenced by regulatory practice. While regulatory practices must be appropriately considered, standards do not have to follow a Regulatory Guide (RG).. Chuck Moseley added that when RGs were written in the 1970s, much was written in a short amount of time. In some cases, there were standards prior to RGs.

8. Consensus Committee Reports (N16, N17, NFSC, RISC)

As the discussions in the morning took much time, consideration was given to skipping consensus committee reports. A motion to skip consensus committee reports and an amended motion to skip consensus committee reports allowing one minute for a brief RISC update were never seconded and the following brief reports were provided.

N17 Committee
A written report was provided (See Attachment D). Tawfik Raby reported that revised standard ANSI/ANS-15.11-2009, "Radiation Protection at Research Reactors," was recently approved. He noted that N17 was developing very few new projects as most were recycled standards projects.

Risk Informed Standards Committee
Allen Camp informed members that a revised draft of ANS-58.22, "Low Power and Shutdown PRA Methodology," had been completed and would be re-issued for a third ballot shortly. Additionally, the ANS-58.25 Working Group completed a rough draft of the Level 3 PRA standard that was sent to RISC for a preliminary review. Camp anticipated that a draft of the Level 2 PRA standard would follow shortly. A written report was provided (See Attachment E).

N16 Committee
Calvin Hopper stated that a member scrubbed all N16 standards and found inconsistencies in definitions that would be subsequently addressed. He recommended that notices of clarifications should be added to each standard. While it was noted that clarifications were published in Nuclear News and Nuclear Standards News and available on the ANS Web site, members agreed that some type of notice about clarifications should be added to all standards. Walter Justice recommended that a statement be prepared for inclusion in the foreword of all standards; while published standards would need the statement stamped into the foreword.

Action Item 11/09-01: Prasad Kadambi and Pat Schroeder to draft a statement on clarifications and interpretations for inclusion in the foreword of all standards and consider need for practice to be included in a policy.

Lastly, Calvin Hopper reported that N16 Policies and Procedures were finalized and approved. A written report was also provided (See Attachment F).

NFSC
Carl Mazzola highlighted key points of the NFSC written report (See Attachment G). A significant achievement was the approval of ANSI/ANS-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination." Several standards had been reaffirmed over the year and several were resolving ballot comments. Mazzola reported that NFSC subcommittee chairs were tasked with reviewing the titles of their standards to make sure that titles were clear and consistent. Kadambi mentioned that NFSC member Gene Carpenter requested a list of standards that could potentially be issued for public review over the next year be provided to the NRC. Kadambi asked for each consensus committee chair to review their standards and prepare a list of those that could be ready for public review in the near future. Members felt that the lists should also be provided to the DOE and Mathew Forsbacka of the Defense Nuclear Facilities Safety Board (DNFSB) .

Action Item 11/09-02: Consensus committee chairs to provide a list of draft standards that could be issued for public review within the next year for the NRC, DOE, and DNFSB.

9. International Activities Including the International Organization for Standardization (ISO)

Prasad Kadambi asked Calvin Hopper to provide an update on ISO activities. Hopper reported that ISO Technical Committee 85/ Subcommittee (SC) 5 had limited U. S. representation except for Working Group 8 on nuclear criticality safety. Kadambi explained that there was a lot of interest in expanding ANS participation in international activities and asked members to provide suggestions to increase ANS international participation.

Action Item 11/09-03: Standards Board members provide ANS Standards Board Chair Prasad Kadambi with suggestions to increase ANS international participation.

Tawfik Raby noted that SC6 was the only group held by the U. S. and that they were not getting support. Kadambi asked what message he could take to the ANS President. Don Spellman suggested looking to the U. S. Nuclear Technical Advisory Group (NTAG) for guidance. It was noted that NIST and the American Society for Testing and Materials (ASTM) were the administrative components of NTAG and that they had decided NTAG didn't need a budget. Michael Westfall stated that to move forward funding was needed. Raby informed members that Wade Richard would be replaced as international SC6 Chair due to family health issues. Westfall confirmed that he served as NTAG Vice-Chair and that George Campbell held the position of NTAG Chair. Raby suggested reaching out to very high-level people in different countries to support SC6 activities. Spellman added that to actively participate on SC6, individuals would need funding to travel internationally. Kadambi asked for a member to provide materials for him to take to the NESCC to request funding for international activities. No offers were made.

Kadambi informed members that he had been recently spending some time in India relative to providing information that could help to support their standards needs. He found that they preferred to use ISO or International Atomic Energy Agency (IAEA) "standards" as opposed to American National Standards.

10. Discuss and Resolve Action Items

Open action items were discussed and closed if completed. A list of action items and their status can be found at the end of these minutes. A few additional action items were assigned during the discussion.

Action Item 11/09-04: Consensus committee chairs to include status of delinquent standards in their committee reports.

Action Item 11/09-05: Pat Schroeder to send Allen Camp a copy of the N16 training standard, ANSI/ANS-8.26-2007.

An action item had previously been assigned for a few members to review the 2010 Standards Service Award nominations. It was recognized that Steve Stamm's increase in travel abroad could make it difficult from him to participate on the ad hoc committee. Calvin Hopper agreed to step in, if necessary.

11. Secretary's Reports

Staff Report, Standards Reports, Sales Report

With several new members, Pat Schroeder reviewed and explained the provided reports (See Attachments H, I, and J). The Staff Report was a summary of key activities of the ANS Standards Department. Three standards reports were provided directly from the database that included an Activity Report, Delinquent Report, and Status Report. The Activity Report included current standards and new standards that were in development. The Delinquent Report was a list of current standards that were out of compliance with ANSI requirements to revise or reaffirm within five years of approval (or reapproval/reaffirmation) but were within 10 years of approval. Standards on this list either had submitted a Project Initiation Notification Systems (PINS) form or an approved extension to perform maintenance. The Sales Report provided sales information on individual standards in print and electronic format.

New PINS Forms/Letter Ballots

No PINS Forms were currently open, but Pat Schroeder provided members a letter ballot to certify the ballot process on ANS-40.37-200x, "Mobile Low-Level Radioactive Waste Processing Systems." Schroeder explained that the draft standard required four ballots due to substantive changes. In the end, consensus was achieved with no objections and a response of 96% of the NFSC. After a brief review of the letter ballot, the following motion was made:

> **MOTION:** To certify Letter Ballot #315 for the approval of ANS-40.37-200x, "Mobile Low-Level Radioactive Waste Processing Systems."

The motion was approved unanimously.

12. Liaison Reports

President's Meeting

Kadambi reported that the ANS President's Meeting's main focus was to encourage international activities by ANS committees and members. Standards Board members questioned whether consensus committee membership restricted international participation. Pat Schroeder confirmed that the Standards Committee Rules and Procedures did not exclude international participation and noted that the N17 Committee currently included one international member from Canada. Additionally, Kadambi stated that ANS President Thomas Sanders requested the Standards Committee to focus on small plants, new plants, and material aging of plants.

The Washington Report (Piercy)

Craig Piercy introduced himself as the ANS Washington Representative and provided a brief summary of his role. He explained that his services were to maintain relations with the Congress and provide technical input into the political process. Currently a key issue was to provide funding for university nuclear engineering programs.

Prasad Kadambi expressed members' concern that the lack of resources prevented several activities, particularly those in the international arena. Piercy recognized that nuclear was emerging as a political issue related to global climate change. He suggested presenting a case to the International Trade Administration to provide support for harmonization of international standards. Kadambi felt that there was an opportunity for the U. S. to provide leadership in international standardization. Piercy felt that in order for him to help seek additional resources for standards activities opportunities would need to be identified and qualified. He explained that ANS Executive Director

John Tuohy would need to be in agreement before he initiated a specific project. Jim August offered to attempt drafting a statement for Kadambi's review. Chuck Moseley offered to provide input to August.

Action Item 11/09-06: Chuck Moseley to provide support to Jim August in preparing a standards position statement for Craig Piercy's reference in soliciting funding for standards development.

Moseley questioned Piercy if he was aware of ANS taking a stand on the Yucca Mountain project. Piercy responded that he expected a policy statement to address Yucca Mountain would be approved before the end of this meeting in Washington DC.

Operations & Power Division
Kadambi informed members that he offered to present at a technical session on experience to date on application of the Code of Federal Regulations Part 52 at the June 2010 ANS meeting.

Nuclear Energy Institute (NEI)
No report was provided.

Institute of Electrical and Electronics Engineers (IEEE) / Nuclear Power Engineering Committee (NPEC)
No report was provided.

13. Other Business

Jim August asked Standards Board members to provide guidance on the recognition of working group members in standards. He explained that one of his working group members felt it was unfair to acknowledge everyone the same way when contribution levels differed. Members felt that decisions on listing working group members in the foreword of a standard was up to the working group chair but suggested to err on the generous side.

Pat Schroeder asked members for their thoughts on an NFSC policy. She explained that the NFSC Policy and Procedures Manual included a statement that restricted the use of both "should and "may" in an appendix. Members immediately expressed surprise as they felt an appendix was an appropriate place for "should" and "may." Schroeder stated that a review of ANS standards and other SDO's standards found the use of "should" and "may" in an appendix customary. Additionally she stated that the author of the procedures, previous Standards Board Chairman, Jim Mallay, was contacted to find a basis for the procedures. Schroeder stated that Mallay felt the policy was in error. The Standards Board was in agreement that the NFSC Policy and Procedures Manual should be corrected immediately. Chuck Moseley agreed to draft a corrected statement for approval of the NFSC.

Action Item 11/09-07: Chuck Moseley to draft a statement to correct NFSC Policy and Procedures Section 7.3 statement on the use of "should" and "may" in an appendix.

14. Adjourn

The meeting was adjourned at 4:58 p.m.

American Nuclear Society
Standards Board Action Items from ANS November 2009 Meeting

Action Item	Description	Responsibility	Status
11/09-01	Prasad Kadambi and Pat Schroeder to draft a statement on clarifications and interpretations for inclusion in the foreword of all standards and consider need for practice to be included in a policy.	Prasad Kadambi, Pat Schroeder	Open
11/09-02	Consensus committee chairs to provide a list of draft standards that could be issued for public review within the next year for the NRC, DOE, and DNFSB.	Consensus Committee Chairs	Open
11/09-03	Standards Board members provide ANS Standards Board Chair Prasad Kadambi with suggestions to increase ANS international participation.	Standards Board Members	Open
11/09-04	Consensus committee chairs to include status of delinquent standards in their committee reports.	Consensus Committee Chairs	Open
11/09-05	Pat Schroeder to send Allen Camp a copy of the N16 training standard, ANSI/ANS-8.26-2007.	Pat Schroeder	Open
11/09-06	Chuck Moseley to provide support to Jim August in preparing a standards position statement for Craig Piercy's reference in soliciting funding for standards development.	Chuck Moseley	Open
11/09-07	Chuck Moseley to draft a statement to correct NFSC Policy and Procedures Section 7.3 statement on the use of "should" and "may" in an appendix.	Chuck Moseley	Open
6/09-01	Standards Board member to be appointed to prepare a standards policy statement for Craig Piercy.	Prasad Kadambi	Open
6/09-03	Prasad Kadambi to follow up on concerns that NRC may have with the use of ANSI/ANS-58.14-1993 (W2004) as a reference.	Prasad Kadambi	Closed
6/09-04	Don Spellman to incorporate international activities to facilitate global use of ANS standards.	Don Spellman	Open
6/09-09	Standard Board members to review and comment on Calvin Hopper's suggested revision to the policy on clarification/interpretations.	Standards Board members	Open
6/09-11	Chuck Moseley, Steve Stamm, and Mike Wright to serve as ad hoc committee for the 2010 Standards Service Award (ad hoc committee leader to be determined between members).	Chuck Moseley, Steve Stamm, Mike Wright	Open
11/08-03	Allen Camp to provide update on NRMCC action item to follow up on education and training with ANS Education & Training Professional Division and ANS Student Workshops to the Standards Board through Pat Schroeder.	Allen Camp	Open

ANS Standards Committee Activity Update

N. Prasad Kadambi
November 19, 2009

ANS Standards Board
An Appeal for Help

- The ANS Standards Committee, which consists of about 1000 volunteers motivated by professionalism and service, faces major challenges if it is to play its proper role in supporting the nuclear renaissance.
- The challenges begin with the very structure that our nation uses to employ voluntary consensus standards, but cascades down to how ANS and its constituent parts work toward common objectives.
- The help required is to:
  - Actively foster a symbiotic relationship between the members of the Standards Committee and the technical divisions of ANS.
  - Obtain material support to the Standards Committee from the beneficiaries of standards.

How Standards Work

A Quick Primer

- The ANS is a standards developing organization accredited by the American National Standards Institute (ANSI).
- ANSI's rules entitle ANS standards for consideration under Public Law 104-113 requiring the government to consider them in lieu of creating new regulation.
- NRC regulated US companies have a strong say on standards which they are unlikely to have on regulations that vitally impact their business.
- Companies involved in writing standards are helping avoid potentially onerous regulations.
- So why are companies not doing more to support standards (ANS ⇔ Nuclear Corporation symbiosis)?

How ANS Works

A Reality Check

- All parts of ANS rely on volunteers who give of themselves beyond what any employer can reasonably demand of an employee.
- The accomplishments of the ANS may be hard to measure in some areas, but not so with standards.
- If the ANS standards program does not measure up to the needs of nuclear stakeholders, the deficiency will be glaringly evident for all to see.
- Achievements for the standards program beyond where it has been will require all parts of the ANS to work in concert with each other.
- We must bring about a symbiosis between the technical Divisions of the ANS and the Standards Committee to address the challenges.

ANS Standards Committee
Highlights

- Approval and publication of ANSI/ANS-3.5-2009, “Nuclear Power Plant Simulators for Use in Operator Training and Examination,” – NRC endorsement anticipated.
- Completion of draft standard ANS-53.1, “Nuclear Safety Criteria and Safety Design Process for Modular Helium-Cooled Reactor Plants,” for consensus committee and public review.
- Completion of draft standard ANS-58.14-20xx, "Safety and Pressure Integrity Classification Criteria for Light Water Reactors," for consensus approval.
- Approval and publication of ANSI/ASME/ANS RA-Sa-2009, Addenda to ASME/ANS RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications.
- Grant award from NRC for the development of three new probabilistic risk assessment standards.

ANS Standards Committee
Highlights

- The ANS has been a lead participant in the formation of the Nuclear Energy Standards Coordination Collaborative (NESCC).
- The NESCC is a joint initiative of the American National Standards Institute and the National Institute for Standards and Technology to identify and respond to the current needs of the nuclear industry.
- This forum of Government agencies and SDOs has high expectations of the ANS.
- There is every indication that the expectations will be supported with resources.

ANS Standards Committee

Highlights

- The ANS continues participation in the Nuclear Risk Management Coordination Committee (NRMCC), another high-profile forum to show what ANS can do.
- The NRMCC, sponsored jointly by ANS and ASME, continues to be an effective forum for cooperation on PRA standards with active participation by NRC, DOE, NEI, and other stakeholders.
- The NRC grant will support the development of PRA standards that address low power and shutdown (LPSD), accident progression and source term analysis (level 2 PRA), and consequence analysis (level 3 PRA). Funds from the grant will enable the working groups to hold more productive meetings and expedite development of the standards.
- This should be viewed as a prototype of higher levels of symbiosis between ANS, the Government, and other SDOs .

ANS Standards Committee

2009 Activities

- We continue to work with the ANS Professional Divisions to facilitate communication on standards needed for the industry and encourage participation of members in standards activities.
- ANS maintains 77 current standards of which 28 are in the process of being revised. Additionally, 34 new standards are in development.
- The Standards Board certified that the balance of interest on our consensus committees meets ANSI and ANS standards rules.

ANS Standards Committee
2009 Activities

- 2 standards were published, and 1 approved standard is currently in production.
- 8 reaffirmed, 2 new, and 1 revised standards received ANSI approval.
- 11 draft standards and current standards were balloted.
- 10 Project Initiation Notification System (PINS) Forms were submitted to ANSI for new and revised standards.

ASME CNRM & ANS RISC Integration Proposal

Status Report

November 17, 2009

Summary

- **SB authorized continued exploration of a joint committee in June 2009**
- **Several telecoms and meetings have been held – All day November 16**
- **Developed a set of principles, a basic structure and draft rules**
- **Key items of relevance to the Board**
  - **Both Boards to Approve Standards**
  - **All current RISC members to be offered the opportunity to participate in the joint committee**
  - **Society interests protected at the Officer Level, i.e., one co-chair and at least one vice-chair from each society**
- **Much work left to do, including work with ANS HQ**
- **We will attempt to hold an "informal" joint meeting in a few months**
- **We may be ready to bring a proposal to the SB at the June meeting**

High Level PRA Standard Organization Chart

NRMCC SDO Coordinating Body

ANS Standards Board

ASME BNCS

JCNRM Executive Committee

Joint Committee on Nuclear Risk Management [JCNRM]

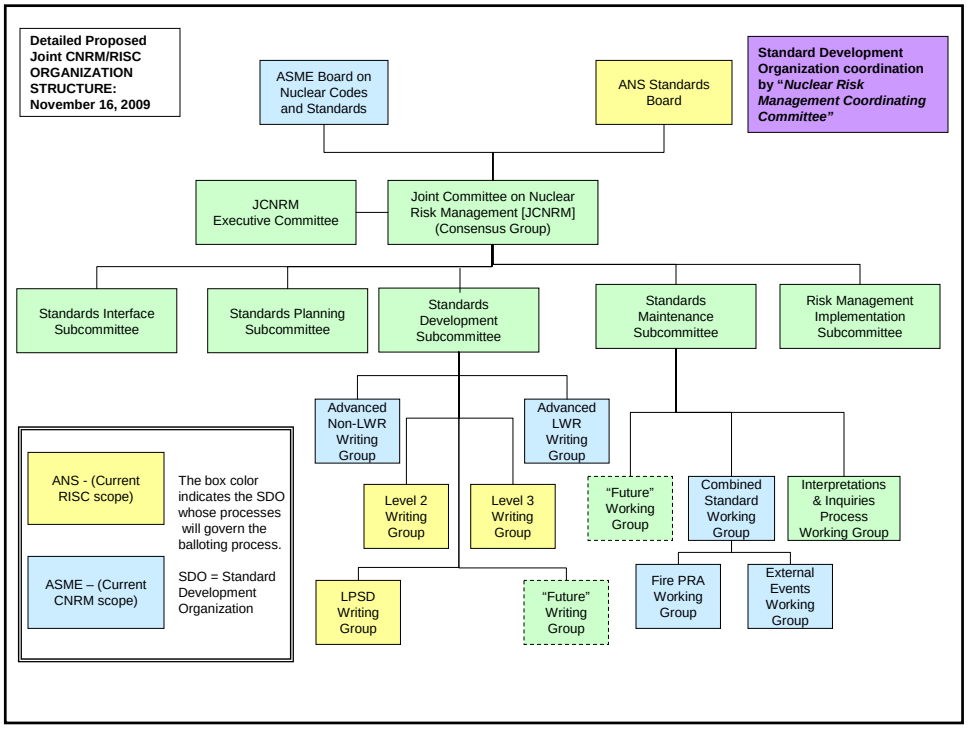
Balance of JCNRM Subcommittees

JCNRM S/C Standards Planning

- Identifies new or modified PRA Standards Needs
- Defines which Standards Development Organization's Rules will apply, i.e., ANS or ASME

Current SDO Scope

ANS	*ASME*	*ASME Cont'd*
- Level 2 PRA	- Level 1 PRA	Advanced LWR PWR
- Level 3 PRA	- Fire PRA	
- LPSD PRA	- External Events	



Affected Policy Manual

POLICY MANUAL FOR THE ANS STANDARDS COMMITTEE

POLICY ON DEVELOPING CLARIFICATIONS AND INTERPRETATIONS

1. BACKGROUND

The Standards Committee shall make timely responses to requests for clarification or generic interpretation of American National Standards developed by ANS. ANS does not develop case interpretations.

2. DEFINITIONS

2.1 *Clarification*
A written reply to a question regarding the original intent of a requirement in an American National Standard.

2.2 *Case Interpretation*
A statement concerning a requirement that falls within the scope of the original standard but supplements or modifies (or both) the requirements stated in the standard and is applicable to a specific design, operation, facility, or other unique situation only and is intended for generic application.

2.3 *Generic Interpretation*
A statement concerning a requirement that falls within the scope of the original standard but supplements or modifies the requirements stated in the standard and is intended for generic application.

3. REQUIREMENTS FOR CLARIFICATIONS AND GENERIC INTERPRETATIONS

3.1 *Clarification*
The reply to a clarification should explain the requirement and how it is intended to be applied. The reply shall not make any implication or statement that would modify or add to the requirement as presented in the standard. Clarifications are intended to explain a requirement in a standard and shall not modify its requirements, intent, or purpose.

3.2 *Generic Interpretation*
A generic interpretation addresses a request for how to apply the standard to a proposed generic (nonunique) situation, regardless of the original intent of the standard. Interpretations

intentionally modify or supplement the original intent of a requirement and shall be intended for generic application

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4. PROCEDURE

4.1 *Tracking*

The Standards Administrator shall monitor the evaluation of all requests for clarification and generic interpretation and shall assist the SB Chair in ensuring that the requirements of this policy are properly implemented.

4.2 *Distribution*

The Standards Administrator shall send each request to the SB Chair, who shall determine whether the request constitutes a clarification, generic interpretation, or neither. The Chair shall consult with the responsible consensus committee and subcommittee chairs, as appropriate, in making this determination. If the request is determined to be for neither a clarification nor a generic interpretation, the SB Chair shall respond to the requestor accordingly within 30 days of the receipt of the request.

4.3 *Development and Approval of Reply*

A request for clarification or generic interpretation shall be sent to the chairs of the responsible subcommittee and consensus committee. If the responsible working group is available or can be reconstituted, the subcommittee chair shall request that it develop a suitable reply. The working group's reply shall be voted on by the subcommittee. Upon achieving subcommittee approval, clarifications shall be sent to the SB Chair through the consensus committee chair; generic interpretations shall be sent to the consensus committee for consensus ballot prior to sending the reply to the SB Chair. The consensus committee may also vote on a clarification if deemed appropriate by its chair. In the event the subcommittee is not considered by the consensus committee chair to be broadly enough constituted to perform an adequate review, the sole voting process on a clarification shall be performed by the consensus committee. If an appropriate working group is not available to make a timely response, the reply shall be developed and reviewed by the subcommittee. The reply shall be sent to the consensus committee for vote (in the case of a clarification) or for ballot (for an interpretation). Upon consensus for approval the reply shall be sent to the SB Chair.

4.4 *Response to Requestor*

After all appropriate approvals have been obtained, the SB Chair shall send the reply to the requestor and to the Standards Administrator. The reply shall be sent to the requestor within six months after receipt of the request by the ANS Standards Administrator, unless an alternate schedule is developed and understood by the requestor within three months of receipt.

4.5 *Publication*

Approved clarifications and generic interpretations shall be published in *Nuclear News* within two months after the reply was sent to the requestor.

3/14/83
(JFM edit, 8/16/99)
(JFM revised, 1/20/04)
(JFM edit, 5/27/04)

Affected Rules and Procedures

American Nuclear Society
Standards Committee
Rules and Procedures
February 12, 2004
JFM, 7/7/05
JFM, 1/31/06
Reaccredited by ANSI on February 8, 2006

5.7 Requests for interpretation of an American National Standard developed by the Standards Committee shall be submitted to the secretary of the SB. The secretary of the SB shall provide the request to the chairman of the SB, who, in consultation with the responsible consensus committee and subcommittee chairmen, shall determine whether the request is to be handled as an interpretation or clarification. A clarification is a written reply to a question regarding the original intent of a requirement in an American National Standard and is developed by the responsible working group. A clarification has no effect on the standard and requires the concurrence of the subcommittee chair only. Because an interpretation can alter one or more requirements in the standard, it shall be reviewed for technical content by the appropriate subcommittee and balloted by the responsible consensus committee in accordance with Article 5.4. The clarification or approved interpretation shall be reviewed by the chairman of the SB, who shall reply to the inquirer. Each clarification and interpretation shall be published in Nuclear News.

PROPOSED REPLACEMENT

(C.M. Hopper)

POLICY ON DEVELOPING RESPONSES TO INQUIRIES ABOUT STANDARDS REQUIREMENTS, RECOMMENDATIONS, AND PERMISSIONS

1. BACKGROUND

The Standards Committee shall make timely responses to inquiries about requirements, recommendations and/or permissive statements in American National Standards developed by ANS. ANS does not develop *Case Interpretation*s.

2. DEFINITIONS

2.1 *Response*

A written *Response* to an *Inquiry* about the content of an American National Standard developed by ANS.

2.2 *Case Interpretation*

A statement concerning a requirement that falls within the scope of the original standard but supplements or modifies (or both) the requirements stated in the standard and is applicable to a specific design, operation, facility, or other unique situation only and is intended for generic application.

2.3 *Inquiry*

A question about a specific ANS standard that relates to the generic requirements, recommendations, and/or permissive statement(s) in that standard.

3. REQUIREMENTS FOR RESPONDING TO INQUIRIES

3.1 *Response*

The *Response* should explain the requirement, recommendation, or permissive statement(s) in the standard and how it is intended to be applied generically (non-specifically) relative to the *Inquiry*. The *Response* shall not make any statement(s) that would modify or add to the requirement as presented in the standard.

4. PROCEDURE

4.1 *Tracking*

The Standards Administrator shall monitor the evaluation of all inquiries and shall assist the SB Chair in ensuring that the requirements of this policy are properly implemented.

4.2 *Distribution*

The Standards Administrator shall send each *Inquiry* to the ANS Standards Board (SB) Chair, the responsible Consensus Committee Chair, and responsible Subcommittee Chair for their review to assure that the *Inquiry* is relevant to the identified standard and does not qualify as a *Case Interpretation*. If the *Inquiry* is determined to be a *Case Interpretation* or *not relevant* to the specified standard, the SB Chair shall respond to the requestor within 30 days of the receipt of the *Inquiry*. Upon the determination by the SB Chair, Consensus Committee Chair, and Subcommittee Chair that the *Inquiry* is not a *Case Interpretation* and is relevant to the referenced standard the Subcommittee Chair shall manage the development of a *Response* to the *Inquiry* according to §4.3.

4.3 ***Development and Approval of an Inquiry Response***

The *Response* to an *Inquiry* about a specifically dated standard shall be developed through the same consensus process as used for the development of the referenced specific standard. Depending upon the availability of Working Group members, the following *Inquiry Response* development alternatives shall be considered in the following order of preference.

4.3.1 **First Alternative**

If the majority number of Working Group members who authored the specifically dated standard are available and can be reconstituted, then the Subcommittee Chair shall request that those Working Group members develop the *Response* to the *Inquiry*. The *Response* shall meet the approval of the majority number of Working Group members who authored the specifically dated standard. Following the *Response* approval by that majority, the *Response* shall proceed through the same ANS standards consensus balloting process used for issuing ANS standards[1].

If the *Response* cannot meet the approval of that majority then the development of the *Response* shall be in accordance with §4.3.2.

4.3.2 **Second Alternative**

Failing the First Alternative, the Subcommittee Chair shall request that the Working Group responsible for maintaining or revising the specifically dated or titled standard develop the *Response* to the *Inquiry*. Final approval of the *Inquiry Response* shall be in accordance with the same ANS standards consensus balloting process used for issuing ANS standards.

If there is no Working Group maintaining the specifically dated or titled standard then the development of the *Response* shall be in accordance with §4.3.3.

4.3.2 **Third Alternative**

Failing the Second Alternative, the Subcommittee Chair shall request that the responsible Subcommittee develop the *Response* to the *Inquiry*. Final approval of the *Inquiry Response* shall be in accordance with the same ANS standards consensus balloting process used for issuing ANS standards.

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[1] ANS Policy Manual - POLICY ON COMPLETING THE CONSENSUS BALLOTING PROCESS (Revised 1/20/03).

In the event that the responsible Subcommittee no longer exists or is unable to develop a consensus *Response* the Subcommittee Chair shall notify the Consensus Committee Chair of the circumstance and shall provide a statement to that effect to the SB Chair for transmittal to the Requestor.

4.4 ***Response to Requestor***

After all appropriate approvals have been obtained, the SB Chair shall send the *Response* to the Requestor and to the Standards Administrator. The reply shall be sent to the requestor within six months after receipt of the request by the ANS Standards Administrator, unless an alternate schedule is developed and understood by the Requestor within three months of receipt.

4.5 ***Publication***

Approved *Inquiry Response*s shall be published in *Nuclear News* within two months after the reply was sent to the requestor.

CMH 11/16/09

(C.M. Hopper)

PROPOSED Revision

to
American Nuclear Society
Standards Committee
Rules and Procedures
February 12, 2004
JFM, 7/7/05
JFM, 1/31/06

Reaccredited by ANSI on February 8, 2006

5.7 Inquiries (i.e., requests, and/or questions) about American National Standards developed by the Standards Committee shall be submitted to the Standards Administrator. The The Standards Administrator shall send each Inquiry to the ANS Standards Board (SB) Chair, the responsible Consensus Committee Chair, and responsible Subcommittee Chair for their review to assure that the Inquiry is relevant to the identified standard and does not qualify as a *Case Interpretation*. If the Inquiry is determined to be a *Case Interpretation* or *not relevant* to the specified standard, the SB Chair shall respond to the requestor within 30 days of the receipt of the Inquiry. Upon the determination by the SB Chair, Consensus Committee Chair, and Subcommittee Chair that the Inquiry is not a *Case Interpretation* and is relevant to the referenced standard the Subcommittee Chair shall manage the development of a Response to the Inquiry according to the SB POLICY ON DEVELOPING RESPONSES TO INQUIRIES ABOUT STANDARDS REQUIREMENTS, RECOMMENDATIONS, AND PERMISSIONS. Because a Response to the Requestor can alter one or more requirements, recommendations, or permissions in the standard, the Response shall be reviewed for technical content by the appropriate Working Group, Subcommittee and balloted by the responsible Consensus Committee in accordance with Article 5.4. The SB Chair shall reply to the Requestor of the Inquiry. Each Response shall be published in Nuclear News.

N17 Progress Report
November 2009

Standards Published

ANSI/ANS-19.10-2009, “Methods for Determining Neutron Fluence in BWR and PWR Pressure Vessel and Reactor Internals”

Approved by ANSI

ANSI/ANS-10.2-1999 (R2009), “Quality Control for Plate-Type Uranium-Aluminum Fuel Elements” (reaffirmation)

ANSI/ANS-15.11-2009, “Radiation Protection at Research Reactors” (revision of ANSI/ANS-15.11-1993; R2004)

N17 Action Completed

ANSI/ANS-10.2-1999 (R200x), “Quality Control for Plate-Type Uranium-Aluminum Fuel Elements” (reaffirmation)

ANSI/ANS-14.1-2004 (R200x), “Operation of Fast Pulse Reactors”

ANS-15.11-200x, “Radiation Protection at Research Reactors” (revision of ANSI/ANS-15.11-1993; R2004)

PINS Approved

ANS-19.3, “Steady-State Neutronics Methods for Power-Reactor Analysis” (revision of ANSI/ANS-19.3-2005)

Clarifications Issued

ANSI/ANS-5.1-2005, “Decay Heat Power in Light Water Reactors”

ANSI/ANS-6.4-2006, “Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants”

ANSI/ANS-19.6.1-2005, “Reload Startup Physics Tests for Pressurized Water Reactors”

RISC Progress Report
November 2009

Action Completed

The RISC was provided an opportunity to comment on NFSC draft standard ANS-2.17-20xx, "Evaluation of Subsurface Radionuclide Transport at Commercial Nuclear Power Production Facilities."

Grant Awarded for RISC PRA Standards

An NRC grant to support the RISC PRA standards was awarded effective 7/30/09 for the next three years.

In RISC Ballot/Vote (or resolving comments)

ANS-58.22-20xx, "Low Power Shutdown PRA Methodology"

- Writing group led by Don Wakefield
- Reballot issued due to substantive changes
- Reballot closed October 2008 with 674 committee comments and 116 public comments
- Revised draft to be issued for a third ballot before the end of 2009

Standards in Progress

ANS-58.24-20xx, "Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications"

- Writing group led by Mark Leonard, underway since 2005
- Preliminary draft for RISC review in 2010
- Ballot date to be determined

ANS-58.25-20xx, "Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications"

- Writing group led by Keith Woodard, underway since 2005
- Preliminary draft for RISC end 2009
- Ballot date to be determined

Other Issues

- Coordination with NRMCC and ASME-CNRM
- Combining ANS RISC with ASME CNRM

N16 Progress Report
November 2009

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 (R2005))

ANS-8.22, “Nuclear Criticality Safety Based on Limiting and Controlling Moderators” (revision of ANSI/ANS-8.22-1997 (R2006))

ANS-8.28, NCS & NDA Needs/Applications Standard – title to be defined (new standard)

PINS in Approval Process/Resolving Comments

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

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 (R2005))

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

ANS-8.15, “Nuclear Criticality Control of Selected Actinide Nuclides” (revision of ANSI/ANS-8.15-1981 (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))

Other Issues

- N16 Rules & Procedures
- ANS-8.1 Clarification/Interpretation regarding ¶ 4.1.2 Process Analysis, ¶ 4.2.4 Double Contingency Principle, and Appendix A relationships and meanings/intents and seeming inconsistencies.
- Progress of long-outstanding PINS & Standard development of a posting standard.

NFSC Chairman's Report
ANS November 2009 Meeting ● Washington DC

I. Published Standards (1)

Standard	Status	SC
ANSI/ANS-3.5-2009, Nuclear Power Plant Simulators for Use in Operator Training and Examination (revision of ANSI/ANS-3.5-1998)	Published	ANS-21

II. Standards approved by NFSC (1)

Standard	Status	SC
ANSI/ANS-3.5-2009, Nuclear Power Plant Simulators for Use in Operator Training and Examination (revision of ANSI/ANS-3.5-1998)	Approved by ANSI 9/4/2009	ANS-21

III. Standards and draft standards at ballot or comment resolution (6)

Standard	Status	SC
ANS-2.17, Evaluation of Subsurface Radionuclide Transport at Commercial Nuclear Power Production Facilities (reinvigoration of historic standard)	resolving comments/revising draft	ANS-25
ANSI/ANS-2.26-2004 (R200x), Categorization of Nuclear Facility Structures, Systems, and Components For Seismic Design (reaffirmation)	Ballot open until 12/1/09	ANS-22
ANS-41.5, Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation (new standard)	resolving comments/revising draft	ANS-24
ANS-40.37, Mobile Low-Level Radioactive Waste Processing Systems (reinvigoration of historic standard)	resolving comments/revising draft	ANS-27
ANS-53.1, Nuclear Safety Criteria for the Design of Modular Helium-Cooled Reactor Plants (new standard)	resolving comments/revising draft	ANS-28
ANS-58.14, Safety and Pressure Integrity Classification Criteria for Light Water Reactors (reinvigoration of historic standard)	resolving comments/revising draft	ANS-22

IV. PINS approved by NFSC (3)

Standard	Status	SC
ANS-54.1, Nuclear Safety Criteria and Design Process for Liquid-Metal-Cooled Nuclear Power Plants (reinvigoration of historic standard)	Submitted to ANSI 10/27/09	ANS-29
ANS-56.8, Containment System Leakage Test Requirements (revision of ANSI/ANS-56.8-2002)	Resolving SB PINS comments	ANS-21
ANS-58.8, Time Response Design Criteria for Safety-Related Operator Actions (revision of ANSI/ANS-58.8-191994 (R2008))	Resolving SB PINS comments	ANS-22

V. PINS in approval with NFSC (1)

Standard	Status	SC
ANS-2.31, Standard for Estimating Extreme Precipitation at Nuclear Facility Sites (new standard)	PINS being reviewed by NFSC for approval	ANS-25

VI. 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-40.21, Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds	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-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

Staff Report
October 2009

Standards Development

Project Initiation Notification System (PINS) forms were submitted to ANSI announcing initiation of 10 standards projects that include:

- ANS-2.2, “Earthquake Instrumentation Criteria for Nuclear Power Plants,” (revision)
- ANS-2.25, “Surveys of Terrestrial Ecology Needed to License Thermal Power Plants,” (new standard – reinvigoration of historical standard)
- ANS-3.1, “Selection, Qualification, and Training of Personnel for Nuclear Power Plants,” (revision)
- ANS-6.1.2, “Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants,” (revision)
- ANS-15.2, “Quality Control for Plate-Type Uranium-Aluminum Fuel Elements,” (revision)
- ANS-19.3, “Steady-State Neutronics Methods for Power-Reactor Analysis,” (revision)
- ANS-51.10, “Auxiliary Feedwater System for Pressurized Water Reactors,” (revision)
- ANS-54.1, “Nuclear Safety Criteria and Design Process for Liquid-Metal-Cooled Nuclear Power Plants,” (new standard – reinvigoration of historical standard)
- ANS-56.8, “Containment System Leakage Test Requirements,“ (revision)
- ANS-58.8, “Time Response Design Criteria for Safety-Related Operator Actions,” (revision)

Year to date, 12 ballots have been administered for approval of new or revised standards and reaffirmations of current standards. The American National Standards Institute (ANSI) granted final approval as American National Standards to eight reaffirmations, two new standards, and one revised standard.

Two ANS standards have been published this year and one standard is in production. This includes ANSI/ANS-3.5-2009, “Nuclear Power Plant Simulators for Use in Operator Training and Examination,” ANSI/ANS-15.11-2009, “Radiation Protection at Research Reactors,” and ANSI/ANS-19.10-2009, “Methods for Determining Neutron Fluence in BWR and PWR Pressure Vessel and Reactor Internals.”

NRC Grant Awarded

A grant was awarded from the U.S. Nuclear Regulatory Commission for development of three new standards for probabilistic risk assessment (PRA) techniques. The primary purpose of this grant is to aid in the development of PRA standards that address low power and shutdown, accident progression and source term analysis (level 2 PRA), and consequence analysis (level 3 PRA). Funds from the grant will enable the working groups to hold more productive meetings and expedite development of the standards. Working groups to support all three projects have already been formed.

Standards Committee News

All four consensus committees are scheduled to meet during the ANS Winter Meeting in Washington, DC, along with the Standards Board and numerous working groups. Several Standards Committee groups continue to take advantage of teleconferencing capabilities through the ANS phone system and two working groups held meetings at ANS Headquarters in La Grange Park, Illinois.

Standards Committee members continue to be active in the newly formed Nuclear Energy Standards Coordination Collaborative (NESCC). The NESCC is a joint initiative by the American National Standards Institute and the National Institute of Standards and Technology formed to identify and respond to the current needs of the nuclear industry. Standards Committee members attended the inaugural meeting June 1, 2009, and plan to attend the upcoming meeting December 15, 2009.

Clarifications

The Standards Committee has seen an increase in inquiries related to standards. Seven formal clarification responses were provided to the public in 2009. All clarifications are published in *Nuclear News* and *Nuclear Standards News*. Additionally clarifications are publicly available under "Related Sections" in the ANS On-line Store under standards. (http://www.ans.org/standards/clarifications/)

New On-Line Volunteer Database

Due to work on the development of an electronic submission system for ANS meetings, work on the on-line standards volunteer database has been put on hold.

Standards Service Award

Calvin Mitchell Hopper was selected as the 2009 Standards Service Award recipient and will receive that award at the Honors and Awards Luncheon during the ANS Winter Meeting in Washington DC.

Updated Standards Committee Rules and Procedures

The Standards Board approved a set of revised Standards Committee Rules and Procedures. The changes include a new set of definitions for balance of interest categories, membership classifications, and the documentation of existing procedures to be in compliance with American National Standards Institute (ANSI) requirements. The revised rules and procedures were submitted to the ANSI for certification.

Standards Department Audit

The American National Standards Institute (ANSI) has scheduled an audit of the ANS standards program for March of 2010. All ANSI-Accredited Standards Developers are audited every five to six years to confirm compliance with procedures to maintain accreditation.

STANDARDS SALES REPORT

Report Date: 5/16/09 – 10/31/09

Designation & Title of Standard	# Of Paper/Electronic Copies Sold	Total Price
ANS-1-2000;R2007, Conduct of Critical Experiments	1	27.90
ANS-2.2-2002, Earthquake Instrumentation Criteria for Nuclear Power Plants	2 / 2	176.00
ANS-2.3-1983, Standard for Estimating for Extreme Wind Characteristics at NPPs	2	117.80
ANS-2.8-1992, Determining Design Basis Flooding at Power Reactor Sites	4	544.00
ANS-2.10-2003, Criteria for the Handling and Initial Evaluation of Records from NPP Seismic Instrumentation	1	37.00
ANS-2.12-1978, Guidelines for Combining Natural and External Man-Made Hazards at Power Reactor Sites	1	115.20
ANS-2.26-2004, Categorization of Nuclear Facility SSCs For Seismic Design	2	188.00
ANS-2.27-2008, Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	3 / 4	643.20
ANS-2.29-2008, Probabilistic Seismic Hazard Analysis	3 / 6	948.30
ANS-3.1-1993;R1999, Selection, Qualification Training of Personnel for NPPs	11	683.10
ANS-3.4-1996;R2002, Medical Certification and Monitoring of Personnel Requiring Operator Licenses for NPPs	3	147.60
ANS-3.5-1998, NPP Simulators for Use in Operator Training & Examination	8	620.30
ANS-3.5-2009, NPP Simulators for Use in Operator Training and Examination	5 / 41	4262.40
ANS-3.8.7-1998, Criteria for Planning, Development, Conduct and Evaluation of Drills and Exercises for Emergency Preparedness	2	45.00
ANS-3.11-2005, Determining Meteorological Information at Nuclear Facilities	3 / 1	428.00
ANS-4.5-1980;R1986, Criteria for Accident Monitoring Functions in LWRs	3	151.20
ANS-5.1-1994, Decay Heat Power in Light Water Reactors	1	108.00
ANS-5.1-2005, Decay Heat Power in Light Water Reactors	3	348.00
ANS-5.4-1982,, Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel	2	66.60
ANS-5.10-1998;R2006, Airborne Release Fractions at Non-Reactor Nuclear Facilities	1	104.00
ANS-6.1.1-1991, Neutron and Gamma-Ray Fluence-To-Dose Factors	3	243.00
ANS-6.1.2-1999;R2009, Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	1	31.00
ANS-6.4-1997;R2004, Nuclear Analysis and Design of Concrete Radiation Shielding for NPPs	1	156.00
ANS-6.4-2006, Nuclear Analysis and Design of Concrete Radiation Shielding for NPPs	2 / 4	951.20
ANS-6.4.2-2006, Specification for Radiation Shielding Materials	4	248.00
ANS-6.4.3-1991, Gamma-Ray Attenuation Coefficients and Buildup Factors for Engineering Materials	6	1104.00
ANS-6.6.1-1987;R1998;R2007, Calculation & Measurement Direct & Scattered Gamma Radiation from LWR NPPs	1	112.00
ANSI/ANS/HpSSC-6.8.1-1981, Location and Design Criteria for Area Radiation Monitoring Systems for Light Water Nuclear Reactors	1	50.40
ANS-8.1-1998;R2007, Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	30 / 5	2047.50
ANS-8.3-1997;R2003, Criticality Accident Alarm Systems	1	72.90
ANS-8.7-1998;R2007, Guide for Nuclear Criticality Safety in the Storage of Fissile Materials	2	131.10
ANS-8.14-2004, Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors	1	37.00
ANS-8.17-2004;R2007, Criticality Safety Criteria for the Handling, Storage and Transportation of LWR Fuel Outside Reactors	2	70.30
ANS-8.19-1996, Administrative Practices for Nuclear Criticality Safety	15 / 1	376.65
ANS-8.20-1991;R1999;R2005, Nuclear Criticality Training	1	37.00
ANS-8.23-2007, Nuclear Criticality Accident Emergency Planning and Response	2 / 1	258.50
ANS-8.24-2007, Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations	5 / 3	569.85
ANS-8.26-2007, Criticality Safety Engineer Training and Qualification Program	1 / 1	7.35
ANS-8.27-2008, Burnup Credit for Light Water Reactor Fuel	1 / 2	99.90
ANS-10.2-2000;R2009, Portability of Scientific and Engineering Software	1	37.00
ANS-10.3-1995, Documentation Of Computer Software	1	39.60
ANS-10.4-1987;R1998, Guidelines for the Verification and Validation of Scientific and Engineering Computer Programs in the Nuclear Industry	1	109.00
ANS-10.4-2008, Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry	5 / 6	1086.65
ANS-10.5-2006, Accommodating User Needs in Scientific and Engineering Computer Software Development	2	88.00

STANDARDS SALES REPORT

Report Date: 5/16/09 – 10/31/09

ANS-14.1-2004;R2009, Operation of Fast Pulse Reactors	1	37.00
ANS-15.1-2007, The Development of Technical Specifications for Research Reactors	1	75.00
ANS-15.4-2007, Selection and Training of Personnel for Research Reactors	1 / 2	162.40
ANS-15.8-1995;R2005, Quality Assurance Program Requirements for Research Reactors	2	95.00
ANS-15.15-1978;R1986, Criteria for Reactor Safe Systems of Research Reactors	1	50.00
ANS-15.16-2008, Emergency Planning for Research Reactors	11	492.50
ANS-16.1-2003;R2008, Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure	2	214.00
ANS-18.1-1984, Radioactive Source Term for Normal Operation of Light Water Reactors	1	89.00
ANS-18.1-1999, Radioactive Source Term for Normal Operation of Light Water Reactors	7	522.50
ANS-19.3-2005, The Determination of Steady State Neutron Reactor Rate Distributions and Reactivity of Nuclear Power Reactors	1	86.40
ANS-19.3.4-1976;R1989, The Determination of Thermal Energy Deposition Rates in Nuclear Reactors	8	316.80
ANS-19.6.1-2005, Reload Startup Physics Test for Pressurized Water Reactors	1	84.60
ANS-19.10-2009, Methods for Determining Neutron Fluence in BWR and PWR Pressure Vessel and Reactor Internals	2 / 4	240.80
ANS-19.11-1997;R2002, Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Water Moderated Power Reactors	1	67.50
ANS-51.1-1983;R1988, Nuclear Safety Criteria for the Design of Stationary PWRs	4	664.00
ANS-52.1-1983;R1988, Nuclear Safety Criteria for the Design of Stationary BWRs	3	475.60
ANS-51.10-1991;R2002;R2008, Auxiliary Feedwater System for PWRs	8	626.40
ANS-54.1-1989, General Safety Design Criteria for a Liquid Metal Reactor NPP	1	62.10
ANS-54.2-1985, Design Bases for Facilities for LMFBR Spent Fuel Storage in Liquid Metal Outside the Primary Coolant Boundary	1	50.40
ANS-54.8-1988, Liquid Metal Fire Protection in LMR Plants	1	55.80
ANS-55.1-1992;R2000,R2009 Solid Radioactive Waste Processing System for LWRs	7	783.90
ANS-55.4-1993;R1999;R2007, Gaseous Radioactive Waste Processing Systems for LWRs	2	204.00
ANS-55.6-1993;R1999;R2007, Liquid Radioactive Waste Processing System for LWRs	5	509.60
ANS-56.2-1984;R1989,, Containment Isolation Provisions for Fluid Systems After a LOCA	1	143.00
ANS-56.5-1979;R1987, PWR and BWR Containment Spray System Design Criteria	1	102.00
ANS-56.8-1987,, Containment System Leakage Testing Requirements	1	107.00
ANS-56.8-2002, Containment System Leakage Testing Requirements	1	107.00
ANS-56.11-1988;, Design Criteria for Protection Against the Effects of Compartment Flooding in LWR Plants	1	56.00
ANS-57.1-1992;R1998;R2005, Design Requirements for Light Water Reactor Fuel	2	100.80
ANSI/ANS-57.2-1983, Design Requirements for LWR Spent Fuel Facilities at NPPs	3	267.30
ANS-57.3-1983, Design Requirements for New Fuel Storage Facilities at LWR Plants	1	45.00
ANS-57.5-1996;R2006, LWRs Fuel Assembly Mechanical Design and Evaluation	4	255.30
ANS-57.9-1992, Design Criteria for an Independent Spent Fuel Storage Installation	2	262.20
ANS-58.2-1988, Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	2	271.80
ANS-58.6-1996;R2001, Criteria for Remote Shutdown for Light Water Reactors	1	39.60
ANS-58.8-1994;R2001;R2008, Time Response Design Criteria for Safety-Related Operator Actions	7	331.20
ANS-58.9-1981;R1987;R2002;R2009, Single Failure Criteria for Water Reactor Safety-Related Fluid Systems	3	107.30
ANS-58.11-1995;R2002, Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	2	112.00
ANS-58.14-1993, Safety and Pressure Integrity Classification Criteria for LWR	3	428.40
ANS-58.21-2007, External-Events PRA Methodology	2 / 1	520.80
ANS-59.51-1997;R2007, Fuel Oil Systems for Safety-Related Emergency Diesel Generators	2	117.80
ANS-59.52-1998;R2007, Lubricating Oil Systems for Safety-Related Emergency Diesel Generators	1	56.00
Miscellaneous ANS Historical Standards & Drafts	--	138.00
ASME/ANS RA-S-2008 (& Addenda)	--	1922.80
GRAND TOTAL		**$29,232.10**

Project Activity Report

11/4/2009

NFSC

ANS- 2 . 2	Earthquake Instrumentation Criteria for Nuclear Power Plants	ANS-25	Farhang Ostadan (PhD)	WG Writing Draft
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	Lance Vail ?	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	John Ciolek & Cliff Glantz - VC	WG Writing Draft
ANS- 2 . 16	Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities	ANS-24	John Ciolek / Cliff Glantz - VC	WG Writing Draft
ANS- 2 . 17	Evaluation of Radionuclide Transport in Ground Water for Nuclear Facilities	ANS-25	James Bollinger/Todd Rasmussen	CC Ballot Comment w/ WG
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	Steve Vigeant / Cliff Glantz - VC	WG Writing Draft
ANS- 2 . 25	Surveys of Terrestrial Ecology Needed to License Thermal Power Plants	ANS-25	Chris Guggino	WG Writing Draft
ANS- 2 . 26	Categorization of Nuclear Facility Structures, Systems, and Components For Seismic Design	ANS-22	Neil Brown	Ballot @ CC
ANS- 2 . 30	Assessing Capability for Surface Faulting at Nuclear Facilities	ANS-25	James Beavers	WG Writing Draft
ANS- 3 . 1	Selection, Qualification, and Training of Personnel for Nuclear Power Plants	ANS-21	Russell Smith	WG Writing Draft
ANS- 3 . 4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	ANS-21	Barbara Stevens	PINS Development
ANS- 3 . 7 . 1	Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies	ANS-25	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-25	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-25	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	John Ciolek & Cliff Glantz - V C	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- 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		PINS Development
ANS- 40. 21	Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds	ANS-25		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/ WG
ANS- 41. 5	Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation	ANS-24	Saleem Salaymeh & Tom Rucker (co-chai rs)	CC Ballot Comment w/ WG
ANS- 51. 10	Auxiliary Feedwater System for Pressurized Water Reactors	ANS-22	Earnestine Johnson	WG Writing Draft
ANS- 53. 1	Nuclear Safety Criteria and Safety Design Process for Modular Helium-Cooled Reactor Plants	ANS-28	Jim August	CC Ballot Comment w/ WG
ANS- 54. 1	General Safety Design Criteria for a Liquid Metal Reactor Nuclear Power Plant	ANS-21	George Flanagan (Tentative)	WG Writing Draft
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	Jim Glover	SB PINS Comments w/ WG
ANS- 57. 2	Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants	ANS-27	Rob Tucker (?)	CC Ballot Comment w/ WG
ANS- 57. 3	Design Requirements for New Fuel Storage Facilities at LWR Plants	ANS-27	Rob Tucker (?)	CC Ballot Comment w/ WG
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	PINS @ SB
ANS- 58. 14	Safety and Pressure Integrity Classification Criteria for Light Water Reactors	ANS-22	Mark Linn	CC Ballot Comment w/ WG
ANS- 58. 16	Safety and Pressure Integrity Classification for Non-Reactor Nuclear Facilities	ANS-22	Pranab Guha	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	Charles Rombough	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	David Erickson	WG Writing Draft

ANS- 8 . 22	Nuclear Criticality Safety Based on Limiting and Controlling Moderators	ANS-8	Michael Crouse	PINS Development
ANS- 8 . 23	Nuclear Criticality Accident Emergency Planning and Response	ANS-8	James S. Baker	PINS Development
ANS- 8 . 25	Development of Nuclear Criticality Safety Related Postings	ANS-8	Gerard F. Couture	SB PINS Comments w/ WG
ANS- 8 . 28	NCS & NDA Needs/Applications Standard	ANS-8	Jerry McKamy	PINS Development

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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	PINS Development
ANS- 10. 3	Documentation of Computer Software	ANS-10	Ted Quinn	PINS Development
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. 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	WG Writing Draft
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	WG Writing Draft
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	WG Writing Draft
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. 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/ WG

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

11/4/2009

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	11/21/2002	12/31/2010	12/31/2010	WG Writing Draft	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 stnd 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. Farhang Ostadan appointed WGC 12/11/08 and will lead a revision. PIINS for RV submitted to ANSI 8/18/09.
ANS- 2 . 10	Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation	ANS-21	4/14/2003	12/31/2011	12/31/2011	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 stnd 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. Extension granted until 12/31/2011.
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	PINS Development	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. 1/2009: New Chair B. Stevens committed to project.

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 aggred 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. Rec'd email from ANSI on 9/24/08 that this standard will be administratively withdrawn on 9/18/2009.
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	11/27/2002	12/31/2010	12/31/2010	SB PINS Comments w/ WG	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 performanced 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 performanced 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 8/10/ 2007. PINS reviewed by SB, WGC resolving comments.
ANS- 57. 9	Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)	ANS-27	6/7/2000	6/7/2010	6/7/2010	NONE	Approved 12/31/84. NUPPSCO 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. Extension granted until 6/7/2010.
ANS- 58. 6	Criteria for Remote Shutdown for Light Water Reactors	ANS-21	8/31/2001	8/31/2011	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. Ext granted untill 8/31/11 -- last ext possible.

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. Open Action Item for D. Newton to find new WGC.
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. Standard reviewed by R. Hill. Findings sent to D. Newton/M. Ruby for consideration if RF appropriate.

N16

Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity	History
ANS- 8 . 3	Criticality Accident Alarm System	ANS-8	6/12/2003	6/12/2011	6/12/2011	PINS Development	Approved as N16.2-1969. Revised 1979. Revised (and combined with N2.3) 1986; (ref. in RG 8.12). Revised 8/29/86. Revision to ANS-8 ballot 9/10/92; closes 10/12/92. Extended to 12/31/93. 2nd extension to 12/31/95. 3rd extension to 12/31/96. Withdrawn 12/31/1996. Revised 5/28/97. ISO 7753 in file for comparison. ANSI reaffirmed on 6/12/2003. According to N16 SB 11/2004 report, revision in works. Per 11/05 Minutes, PINS form in works for revision. Work has been underway for some time on the revision w/o a PINS form. Project is currently out of compliance with ANSI's PINS requirement. New WGC 9/2007: Shean Monahan. Sent email 5/20/08 to S. Monahan regarding PINS requirement. Extension granted until 6/12/2001.
ANS- 8 . 6	Safety in Conducting Subcritical Neutron-Multiplication Measurements in Situ	ANS-8	7/23/2001	7/23/2011	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 activty in WG but recommends keeping the standard alive as long as 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. 10/2008: Email sent to WGC to consider revision/reaffirmation/withdrawal. Last ext. granted until 7/23/2011.

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 . 14	Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	5/25/2004	12/31/2012	5/25/2009	NONE	Draft should be ready for 11/87 meeting of ANS-8. 4/30/2003- Schlesser said the scope is changing. 08/03- PINS was balloted at ANS8/N16 level and approved. ANSI approved this new standard on 5/25/04. Available for Sale 10/18/04. Per ANS-8 11/2005 minutes: WG has not meet since 2004 revision. Ext granted until 12/31/12.
ANS- 8 . 21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	7/23/2001	12/31/2009	7/23/2011	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. Schlesser 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. H. Toffer retired as WGC effective 12/1/08 - David E rickson took over as WGC same day.

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Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity	History
ANS- 15. 17	Fire Protection Program Criteria for Research Reactors	ANS-15	5/3/2000	5/3/2010	5/3/2010	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. 10/2008 Draft ready for subcommittee review. Email sent to W. Richards for status & to see if ANS-15.17 is ready for N17 ballot. Ballot for RV closed 3/20/09 with 3 NEGS. Draft needs significant revision and potentially new working group members. Path forward to be discussed at ANS-15 Meeting 10/2009.

ANS- 19. 1	Nuclear Data Sets for Reactor Design Calculations	ANS-19	7/23/2002		7/23/2012	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. 4	A Guide for Acquisition and Documentation of Reference Power Reactor Physics Measurements for Nuclear Analysis Verification	ANS-19	5/3/2000	5/3/2010	5/3/2010	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. Extension granted until 5/3/2010.
ANS- 19. 11	Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors (for RV of 1997 issue)	ANS-19	12/17/2002	12/31/2010	12/31/2010	WG Writing Draft	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. WGC Mosteller provided draft to D. Cokinos for subcommittee review 11-3-09.

Status of Standards

11/4/2009

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	11/21/2002	12/31/2010	12/31/2010	WG Writing Draft
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	12/31/2011	12/31/2011	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				CC Ballot Comment w/ WG
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	Inactive Project				NONE
ANS- 2 . 23	Nuclear Plant Response to an Earthquake	ANS-21	Current ANSI/ANS	6/15/2009		6/15/2014	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				WG Writing Draft
ANS- 2 . 26	Categorization of Nuclear Facility Structures, Systems, and Components For Seismic Design	ANS-22	Current ANSI/ANS	12/02/2004			Ballot @ CC
ANS- 2 . 27	Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	ANS-25	Current ANSI/ANS	7/31/2008		7/31/2013	NONE
ANS- 2 . 28	Nuclear Material Facility Design Against Natural Phenomena	ANS-25	Inactive Project				NONE
ANS- 2 . 29	Probabilistic Seismic Hazard Analysis	ANS-24	Current ANSI/ANS	7/31/2008		7/31/2013	NONE
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	Active Project	2/4/1999	2/4/2009		WG Writing Draft
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	PINS Development
ANS- 3 . 5	Nuclear Power Plant Simulators for Use in Operator Training and Examination	ANS-21	Current ANSI/ANS	9/4/2009		9/4/2014	NONE
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-25	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-25	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-25	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	Inactive 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	8/4/2008		8/4/2013	NONE
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				PINS Development
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/ WG
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			CC Ballot Comment w/ WG
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	10/14/2008	10/14/2013	WG Writing Draft
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 and Safety Design Process for Modular Helium-Cooled Reactor Plants	ANS-28	Active Project	CC Ballot Comment w/ WG
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	Active Project			WG Writing Draft
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. 5	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	6/15/09	6/15/2014	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	SB PINS Comments w/ WG
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/ WG
ANS- 57. 3	Design Requirements for New Fuel Storage Facilities at LWR Plants	ANS-27	Active Project				CC Ballot Comment w/ WG
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	Historical	5/28/1997	5/27/2007		NONE
ANS- 57. 8	Fuel Assembly Identification	ANS-27	Current ANSI/ANS	1/12/2005	12/31/2012	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	6/7/2010	6/7/2010	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	8/31/2011	12/31/2009	NONE
ANS- 58. 8	Time Response Design Criteria for Safety-Related Operator Actions	ANS-22	Current ANSI/ANS	8/25/2008		8/25/2013	PINS @ SB
ANS- 58. 9	Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems	ANS-22	Current ANSI/ANS	2/24/2009		2/24/2014	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				CC Ballot Comment w/ WG
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

N16

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	6/12/2011	6/12/2011	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	7/23/2011	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	12/31/2012	5/25/2009	NONE
ANS- 8 . 15	Nuclear Criticality Control of Selected Actinide Nuclides	ANS-8	Current ANSI/ANS	7/15/2005		7/15/2015	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	9/14/2009		9/14/2014	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	7/23/2011	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	PINS Development
ANS- 8 . 23	Nuclear Criticality Accident Emergency Planning and Response	ANS-8	Current ANSI/ANS	3/23/2007		3/23/2012	PINS Development
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	Current ANSI/ANS	8/14/2008		8/14/2013	NONE
ANS- 8 . 28	NCS & NDA Needs/Applications Standard	ANS-8	Active Project				PINS Development

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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	NONE
ANS- 5	Energy and Fission Product Release, a management committee of NUPPSCO		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	2/23/2009		2/23/2014	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	NONE
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	Designing for Post-Accident Radiological Conditions		Inactive Project			NONE
ANS- 6 . 9	Criteria for Post Accident Radiological Control	ANS-6	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	8/14/2009	8/14/2014	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	Historical	10/28/08	10/28/2013	NONE
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	10/27/09	10/27/2014	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	3/23/2009	3/23/2014	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	Historical				WG Writing Draft
ANS- 15. 11	Radiation Protection at Research Reactors	ANS-15	Current ANSI/ANS	10/8/2009		10/8/2014	NONE
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	9/23/2008		9/23/2013	NONE
ANS- 15. 17	Fire Protection Program Criteria for Research Reactors	ANS-15	Current ANSI/ANS	5/3/2000	5/3/2010	5/3/2010	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				WG Writing Draft
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	WG Writing Draft
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		7/23/2012	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	WG Writing Draft
ANS- 19. 3 . 4	The Determination of Thermal Energy Deposition Rates in Nuclear Reactors	ANS-19	Current ANSI/ANS	10/31/2008		10/31/2013	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	5/3/2010	5/3/2010	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	Current ANSI/ANS	2/24/09		2/24/2014	NONE
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

RISC

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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/ WG
ANS- 58. 23	Fire PRA Methodology	RISC	Current ANSI/ANS	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-							NONE
ANS-			Inactive Project				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	In-Cell Utility Requirements	Historical	NONE
ANS- 11. 13	Concrete Radiation Shields	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