

**American Nuclear Society (ANS)
Standards Board (SB) Minutes
Hollywood, Florida
June 28, 2011**

Members Present

N. Prasad Kadambi, *Standards Board Chair, Individual*
Donald J. Spellman, *Standards Board Vice-Chair, Oak Ridge National Laboratory*
Robert J. Budnitz, *RISC Chair, Lawrence Berkeley National Laboratory*
Robert D. Busch, *N16 Chair, University of New Mexico*
Walter M. Justice, *Member at Large, Tennessee Valley Authority*
Herbert W. Massie, *Member at Large, Defense Nuclear Facilities Safety Board*
Carl A. Mazzola, *NFSC Chair, Shaw Environmental and Infrastructure, Inc.*
Sean O'Kelly, *Alternate for N17 Chair Tawfik Raby, National Institute of Standards & Technology*
Mathew M. Panicker, *Member at Large, U.S. Nuclear Regulatory Commission*
R. Michael Ruby, *Member at Large, Constellation Energy-Ginna NPP*
Patricia A. Schroeder, *Standards Board Secretary, American Nuclear Society*
Steven L. Stamm, *Member at Large, Shaw Nuclear Services*
William M. Turkowski, *Member at Large, Westinghouse*

Members Absent

Peter S. Hastings, *Member at Large, Duke Energy*
Caroline McAndrews, *Southern California Edison*
Charles H. (Chuck) Moseley, *Member at Large, Individual*
Tawfik M. Raby, *N17 Chair, National Institute of Standards & Technology (Alternate Attended)*
Michael J. Wright, *Member at Large, Entergy*

Guests

Arzu Alpan, *Westinghouse Electric Company*
James K. August, *CORE, Inc.*
William H. Bell, *South Carolina Electric & Gas Co.*
Bryan Erler, *ASME-Vice President, Nuclear Codes & Standards (Erler Engineering, Ltd.)*
Mark Linn, *Oak Ridge National Laboratory*
James F. Mallay, *Individual*
William B. Reuland, *Individual*

1. Welcome and Introductions

Introductions were made, and Standards Board (SB) Chair Prasad Kadambi welcomed the members and guests.

2. Approve Agenda

The agenda was approved as presented.

3. SB Chair's Report

A. Board of Directors (BOD) Presentation

Prasad Kadambi stated that he captured the major activities of the SB in the BOD Presentation. See Attachment A for the full BOD Presentation.

B. American Nuclear Society (ANS) Restructuring

Kadambi reported that the ANS was going through major changes and the events at Japan's Fukushima Daiichi reactors had affected the Society. He stated that he was participating on the ANS Integration and Oversight Committee. This committee had been involved in discussions on the restructuring. Kadambi summarized four potential centers that would constitute the new ANS offering leadership on nuclear technology. He suggested that the SB look at ways they could support the new structure.

C. U.S. Industry Response to Fukushima Lessons-Learned

Kadambi explained that Industry (Institute of Power & Operations, Nuclear Energy Institute, and Electric Power & Research Institute) had gotten together and developed a game plan that included nuclear standards development organizations serving a valuable role. Recommendations were documented in an industry report. The report recommended that strategies should be performance based and risk informed accounting for unique site characteristics. Kadambi felt that ANS needed to make sure they were involved. He believed that the standards developed by the Risk Informed Standards Committee (RISC) would be particularly important.

D. ANS-ASME Meeting Report—Formation of the Joint Committee on Nuclear Risk Management (JCNRM)

Kadambi noted that the SB had reviewed draft procedures for the proposed JCNRM and the ANS BOD had granted approval of the JCNRM with the understanding that a couple outstanding issues would be resolved. He reported that a meeting between the American Society of Mechanical Engineers (ASME) and ANS was held in April at the board level. Basically, the conclusion was that there needed to be a Memorandum of Understanding (MOU) to capture the equity and scope issues. A draft of the MOU was previously circulated (See Attachment B). The MOU would be reviewed by the ASME Board of Nuclear Codes & Standards. Bryan Erler, with ASME, addressed the SB. He stated that ASME supported the MOU. Mary Beth Gardner, Publisher-ANS Scientific Publications, confirmed that both Societies were waiting until the scope was finalized before approving the MOU.

Kadambi stated that nothing was being held up in the progress of the standards being developed while the MOU was finalized. Robert Budnitz confirmed that all activities of the two consensus committee were fully integrated and the process to approve the joint committee had not impeded progress.

Kadambi anticipated that the BOD would ask for status of the open issues at the upcoming BOD meeting. He believed that the MOU reduced the scope of the JCNRM which would create a continued need for a consensus committee to develop risk management standards. On the matter of equity, Kadambi felt it was important that the joint committee be involved with ANS technical divisions, to the extent practical, so that the committee was not isolated from ANS. Kadambi proposed that one meeting a year of the JCNRM be held at an ANS meeting. He stated that he would report this to the BOD and recommend that, subject to approval of these actions, the JCNRM would be approved.

Budnitz explained that he along with the ASME Committee on Nuclear Risk Management (CNRM) Chair, Rick Grantom, drafted the JCNRM procedures, and the scope within, to include the full scope of the RISC and CNRM to fold into the proposed JCNRM scope. After reviewing the RISC scope, members agreed that the current RISC scope was very broad. Kadambi then read the scope from the draft MOU explaining that the scope was specifically defined in the tables. There was general agreement that there would be a need to maintain a consensus committee for risk applications and recommended that it be given a new name for clarification. Budnitz suggested that an ad hoc committee be appointed to determine the proposed scope of the JCNRM to coordinate the new committees. Members recommended that the MOU be finalized first.

E. American National Standards Institute (ANSI) Related Activities Report

Kadambi explained that he had become more involved in ANSI activities. He was recently elected to the ANSI National Policy Committee (NPC). He explained that he saw this as an opportunity for ANS to have an interface with ANSI. Kadambi summarized the activities of the NPC for the members.

James August was asked to report on an ANSI workshop he participated in called “Standards War; Myth or Reality.” He explained that speakers at the workshop felt that competition or competing standards were considered a positive. This was contradictory to concerns of duplication.

F. Meeting with NRC Standards Executive

Kadambi explained that he had made it a practice to meet with the U. S. Nuclear Regulatory Commission (NRC) Standards Executive, Michael Case, annually. He felt this communication was extremely beneficial. Kadambi’s recent meeting with Case was an opportunity to discuss letters notifying them of ANSI approvals. He reported that these notification letters would become part of the Agencywide Documents Access and Management System, however, the standards themselves would not be publicly available. Kadambi reported that they also discussed the ability of NRC staff to attend ANS meetings as well as ASME meetings.

4. National Council on Radiation and Protection Measurements (NCRP) Documents as Initiators for ANS Standards

Prasad Kadambi explained that Patricia Schroeder received NCRP news releases related to the events at the Fukushima Daiichi Nuclear Power Plant that were distributed to the SB for information. He recommended that consensus committee chairs review and consider using NCRP documents as an initiator for a standard. Steven Stamm questioned the use of measurements. Schroeder explained that the Standards Committee had a formal policy on the use of English/SI units on file with ANSI and that she would distribute.

Action Item 6/11-01: Patricia Schroeder to distribute the ANS Standards Committee Policy on the use of English/SI units.

5. Nuclear Energy Standards Coordination Collaborative (NESCC)

Donald Spellman explained that he attended the last NESCC meeting and was charged with leading a task group to develop a list of priority standards needed by the nuclear industry. The task group would solicit priority standards from all nuclear standards development organizations (SDOs) to create one combined priority list. Spellman explained that he would be looking for funding to expedite the development of the top five priority standards. He felt that this effort should solicit international input. Spellman stated that he planned to use the standards symposium scheduled for Wednesday afternoon at the 2011 ANS Annual Meeting in Hollywood, Florida, to get input from users. Members cautioned committing to a two-year time frame to complete the development of a draft as it may not be realistic.

6. Japan Mobilization Support -- Request from ANS President Joe F. Colvin

A. Standards Symposium – Panel Discussion

Members were reminded of the request from ANS President Joe Colvin in support of the events at the Japan’s Fukushima Daiichi Nuclear Power Plants. Donald Spellman explained that the planned standards symposium was a step in this direction as standards to support this event would be discussed. Robert Budnitz reported that the JCNRM Executive Committee was contemplating additional standards that would support Fukushima. Brian Erler suggested that we work closely with NEI and the industry to make sure we developed or revised the appropriate standards. He explained that ASME was working with the Japan Society of Mechanical Engineers (JSME). Kadambi felt that ANS would welcome the participation in this effort. Erler stated that a workshop by JSME and ASME would be conducted. He anticipated contacting ANS to participate. Spellman suggested contacting the Institute of Electrical and Electronics Engineers (IEEE) as well.

Robert Budnitz explained that ANSI/ANS-58.21-2007, “External-Events PRA Methodology,” was merged into the combined ASME/ANS Level 1 standard and covered external flooding. The working group was monitoring the

events and potential changes that would need to be made.

7. Nuclear Risk Management Coordinating Committee (NRMCC)

Prasad Kadambi requested that Robert Budnitz provide the members an update on NRMCC activities. Budnitz reported that there had been a great deal of discussion about dissolving the NRMCC to allow the JCNRM Executive Committee to assume the responsibility of coordinating the development of probabilistic risk assessment (PRA) standards. The conclusion was that the NRMCC was needed as broader coordination and participation was necessary. Kadambi confirmed that the JCNRM Executive Committee would report to the ANS SB. Brian Erler analyzed that the NRMCC provided the “outside” looking “in.”

Erler informed members that ASME anticipated that Ralph Hill would replace Kenneth Balkey as the ASME co-chair of the NRMCC. Budnitz added that Chuck Moseley remained the co-chair for ANS.

8. Small Modular Reactors (SMRs)

As Peter Hastings was not able to attend the meeting and report on development of SMR standards, this discussion was postponed. Prasad Kadambi mentioned that he had recommended a SMR standard on defense in depth.

9. Consensus Committee Reports (RISC, N16, N17, NFSC) (See Attachment C, D, E, F, & G)

A. RISC (Attachment C)

RISC Chair, Robert Budnitz, reported that the RISC was nearing completion of three standards. ANS-58.22, “Low Power and Shutdown Methodology,” could be about a month away from being issued for ballot. Budnitz anticipated that the draft would be extremely controversial. A ballot for the release of ANS-58.25, “Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications,” as a trial use standard had been issued in November 2010. The ballot received significant comment. Budnitz expressed his belief that there were individuals that did not want the standard to be approved. However he thought that the Fukushima incident could have changed some individual’s minds. He anticipated that the ANS-58.24, “Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications,” draft was about six months away from being ready for ballot. Budnitz commented that the difficulties with these standards were that there was no standardized method.

Budnitz stated that the RISC had been formally balloting the standards but that they were also issued to the CNRM for ballot as if the committee had been merged. RISC meetings had been held jointly with the CNRM in lieu of meeting during ANS meetings.

Mathew Panicker asked to address the committee. He explained that he had a meeting with Mary Drouin, the NRC representative on the RISC, regarding issues with the PRA standards. A report was provided and is available as Attachment D. Budnitz addressed the NRC concerns. He summarized that over a year ago a decision was made to issue Addendum B of the combined standard. It was balloted and consensus was declared with a couple negatives. Although members recognized that the addendum was not perfect, the majority felt that it was an improvement and should be released. Brian Erler confirmed that the standard passed consensus. He added that the next step was for the standard to be released for public review which was anticipated to produce significant comments from the objectors and delay the standard.

It was the sentiment of the membership that it was not appropriate for the SB to hear a ballot objection of one organization that happened to have representation on the SB.

B. N16 (Attachment E)

N16 Chair Robert Busch directed members to the written report (See attachment E). He noted that the committee was responding to an inquiry recently received on ANSI/ANS-8.3-1997 (R2003), "Criticality Accident Alarm System." When questioned, Busch stated that no ANS-8 standards were directly applicable to the Fukushima event as they do not apply to reactor facilities.

C. N17 (Attachment F)

Sean O'Kelly reported on behalf of N17 Chair Tawfik Raby. O'Kelly summarized the provided written report. The report is available as Attachment F.

D. NFSC (Attachment G)

NFSC Chair Carl Mazzola reported that NFSC had been extremely busy as the prepared report showed. Mazzola highlighted key accomplishments. He noted that several emergency preparedness standards within the ANS-3.8 series were being initiated, but that ANS-3.8.7, "Criteria for Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities," would be initiated first as a pilot. Members questioned how ANS-3.8.7 could be written before ANS-3.8.1, "Criteria for Radiological Emergency Response Functions and Organizations for Nuclear Facilities," was completed. Members asked Mazzola to look into that.

Action Item 6/11-02: Carl Mazzola to find out how ANS-3.8.7, "Criteria for Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities," can be written before ANS-3.8.1, "Criteria for Radiological Emergency Response Functions and Organizations for Nuclear Facilities."

The full NFSC report is available as Attachment G.

10. Standards Service Award

Steven Stamm reported for the Standards Service Award Ad hoc Committee. The committee included two other members; Chuck Moseley and Michael Wright. Stamm reported that the committee had only one nomination, and although they thought he might be qualified, the nomination packet was insufficient. The nominator was contacted and made a decision to resubmit the nomination with additional background in a resubmittal next year. Stamm stated that the nomination form would also be revised to provide the nominator more guidance in completing the form. Additionally, he explained, that the ad hoc committee reevaluated the current award criteria which required both the nominator and nominee to be an ANS member. With many of the Standards Committee members not being ANS members, the ad hoc committee thought that non-ANS members should not be excluded. Stamm explained that the ad hoc committee recommended that the criteria be changed. Additionally, he suggested that Standards Committee members be solicited more strongly. After a brief discussion, the following motion was made:

MOTION: The Standard Service Award criteria requiring that the nominator/nominee be an ANS member be removed with the criteria that the nominee be a Standards Committee member be added.

The motion was approved with one member in opposition.

Stamm informed the members that he and Chuck Moseley were willing to serve on the Standard Service Award Ad hoc Committee next year with Michael Ruby in place of Michael Wright. Members accepted this offer.

Action Item 6/11-03: Steven Stamm, Chuck Moseley, and Michael Ruby to serve as the 2012 Standards Service Award Ad hoc Committee.

11. Balance of Interest (BOI) Certification (Attachment H)

Prasad Kadambi directed members to the balance of interest reports for the four consensus committees also provided to members ahead of the meeting (see Attachment H). The following motion was made:

MOTION: The balance of Interest reports for all four consensus committees be approved, as presented.

The motion was approved unanimously.

12. 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. Prasad Kadambi reviewed open action items. When discussing Action Item 11/10-10 on a proposed standard on Radiological Dispersal Devices, James Mallay confirmed that the Health Physics Society was interested in developing a standard in this area. Members felt this was acceptable and that ANS would offer resources.

13. Secretary's Reports

A. Staff Report, Standards Report, and Sales Reports (See Attachments I, J, & K)

Pat Schroeder reminded members that several written reports were provided along with the meeting materials included the Staff Report, Standards Reports, Sales Report. The written reports are available as Attachments I, J, and K. Schroeder summarized the reports. She explained that recently interim ANS Executive Director, Roger Tilbrook, asked all departments to prepare an information technology wish list. Schroeder stated that she added the following items to the wish list on behalf of the Standards Committee:

- 1) Completion of the online volunteer database
- 2) An electronic balloting system
- 3) Working Group File Storage
- 4) Webinar capabilities to reduce the need for physical meetings

The following motions were made:

MOTION: To complete the online standards volunteer database and to develop an electronic balloting system.

The motion carried unanimously.

MOTION: ANS provide teleconferencing service capabilities to all standards groups when meeting.

The motion was approved unanimously.

B. New PINS Forms/Letter Ballots

An opportunity to comment on a Project Initiation Notification System Form for a revision of ANSI/ANS-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination," was provided.

14. Liaison Reports

A. Operations & Power Division (OPD)

Prasad Kadambi reported on the OPD meeting the previous day. He reported that they discussed a proposed session on "international framework" at the upcoming November meeting in Washington, DC. Several additional

sessions were proposed. Kadambi noted a proposal for a session in collaboration with the North American Young Generation in Nuclear for the 2012 ANS Annual Meeting in Chicago.

B. Nuclear Energy Institute
No report was provided.

C. Washington Liaison
No report was provided.

D. International Organization of Standardization (ISO)
Kadambi informed members that he was taking over as the new overall advisor for ISO Technical Committee (TC) 85 Subcommittee (SC) 6 and would be providing liaison service to the SB. He reported that funding for travel expenses for this role was requested from the NRC. Carl Mazzola added that he accepted the position of convener for SC 6 Working Group 3.

E. IEEE/Nuclear Power Engineering Committee (NPEC)
Donald Spellman reported that the IEEE/NPEC meeting was after this meeting so he didn't have anything new to report. He confirmed that he had been communicating with Satish Aggarwal, the NPEC chair.

15. Other Business

As incoming chair, Donald Spellman took the opportunity to address the committee. Spellman stated that he would like more control over consensus committees. He would like to form five special, functional committees within the SB and wanted all SB members to be involved. An example, he felt, was the recommendation of teleconferencing capabilities for standards meetings. Spellman detailed the following five groups:

- 1) Communications (lack of communication with other SDOs & international community)
- 2) Information systems (i.e., teleconferencing, online volunteer database, e-balloting/resolution)
- 3) Policy (helps liaison between ANS & regulators)
- 4) Prioritization (of standards needed by the industry/funding)
- 5) Financial (creation of revenue)

Budnitz stated that occasionally, a standard was developed that was highly needed but did not sell well. He would not want the potential for sales to determine whether a standard was initiated. Members recommended more advertising to increase sales as well as a price increase. An additional recommendation was made to get support from industry when initiating a standards project. The Information Center on Nuclear Standards program was discussed as a revenue source as well as the contract with Information Handling Service to provide ANS standards electronically on a subscription basis.

Action Item 6/11-04: Donald Spellman to recruit/select members for five Standards Board "functional committees" to address 1) communications (lack of communication w/other SDOs & international community), 2) information systems (i.e., teleconferencing, online volunteer database, e-balloting/resolution), 3) policy (helps liaison between ANS & regulators), 4) prioritization (of standards needed by the industry/funding), and 5) financial (creation of revenue).

The database project in development by the NRC under an NESCC task group was discussed. The database would be publicly available once completed. Members were divided on the usefulness of this database outside of NRC.

William Bell addressed the committee. He explained that NEI's request to Chief Nuclear Officers to support employee's participation in standards was beneficial and the reason that he was receiving support to attend these

meetings. He would recommend that an appeal be made through NEI for a subscription or fee for access to any standard as a source of revenue.

Spellman stated that some time ago a consensus committee called the Nuclear Power Plant Standards Committee was changed to NFSC to accommodate all nuclear facilities. He thought that standards for fuel fabrication were needed and that the scope of NFSC may need to be revised to accommodate these standards. Spellman asked Herbert Massie to review the scope and provide his thoughts.

Action Item 6/11-05: Herbert Massie to review the NFSC scope and offer thoughts (e.g., which standards, proposed new standards) on modifying ANS standards to accommodate non-reactor nuclear facilities for Fukushima and for construction of new facilities. Herbert Massie to request help from Pranab Guha (of DOE HS-30) since he is the DOE liaison to NFSC.

When questioned whether ANS advertisement in international publication, members were not aware of such advertising.

Pat Schroeder asked to be recognized to convey a message from absent member, Chuck Moseley. She read a message showing appreciation for Prasad Kadambi's service as Chair, Standards Board. Kadambi expressed gratitude for the kind thoughts.

16. Adjourn

The meeting was adjourned at 3:40 p.m. eastern

**American Nuclear Society
Standards Board Action Items**

Action Item	Description	Responsibility	Status
6/11-01	Patricia Schroeder to distribute the ANS Standards Committee Policy on the use of English/SI units.	Pat Schroeder	OPEN (done)
6/11-02	Carl Mazzola to find out how ANS-3.8.7, "Criteria for Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities," can be written before ANS-3.8.1, "Criteria for Radiological Emergency Response Functions and Organizations for Nuclear Facilities."	Carl Mazzola	OPEN (done)
6/11-03	Steve Stamm, Chuck Moseley, and Michael Ruby to serve as the 2012 Standards Service Award Ad hoc Committee.	Steve Stamm, Chuck Moseley, Michael Ruby	OPEN
6/11-04	Donald Spellman to recruit/select members for five Standards Board "functional committees" to address 1) communications (lack of communication w/other SDOs & international community), 2) information systems (i.e., teleconferencing, online volunteer database, e-balloting/resolution), 3) policy (helps liaison between ANS & regulators), 4) prioritization (of standards needed by the industry/funding), and 5) financial (creation of revenue).	Donald Spellman	OPEN (in works)
6/11-05	Herbert Massie to review the NFSC scope and offer thoughts (e.g., which standards, proposed new standards) on modifying ANS standards to accommodate non-reactor nuclear facilities for Fukushima and for construction of new facilities. Herbert Massie to request help from Pranab Guha (of DOE HS-30) since he is the DOE liaison to NFSC.	Herbert Massie	OPEN
11/10-01	Carl Mazzola to write a letter to the ANS President and President Elect outlining Prasad Kadambi's contributions as ANS Standards Board Chair.	Carl Mazzola	CLOSED
11/10-02	Prasad Kadambi to send Dick Black the list of standards projects that could benefit from NESCC funding provided to NEI through Jim Riley.	Prasad Kadambi	CLOSED
11/10-03	Pat Schroeder to notify the DOE, NRC, NEI and EFCOG of new standards and provide a copy.	Pat Schroeder	CLOSED
11/10-04	Prasad Kadambi to create an ad hoc committee 1) to determine if the SB structure needs to change to accommodate a training initiative, and/or 2) to determine the appropriate body to initiate training for a pilot project on risk-informed decision making for the nuclear industry.	Prasad Kadambi	CLOSED
11/10-05	Peter Hastings to establish one or more SMR-related standards to be identified at a subsequent conference call and directed to the appropriate consensus committee for development.	Peter Hastings	OPEN
11/10-06	Bob Budnitz to provide the JCNRM procedures electronically to members for comment through Pat Schroeder.	Bob Budnitz	CLOSED
11/10-07	Members to provide comments on the JCNRM procedures/changes by November 12, 2010, through Pat Schroeder.	All Members	CLOSED
11/10-08	Calvin Hopper to work with Pat Schroeder to prepare a statement for the Foreword of each standard to be consistent with the policy.	Calvin Hopper, Pat Schroeder	CLOSED

11/10-09	Jim Riley to confirm that NEI was satisfied with the decision to issue the PRA standards for trial use and are not in need of a formal response to the letter.	Jim Riley	CLOSED
11/10-10	Prasad Kadambi to follow up with Jim Mallay on a RDD standard.	Prasad Kadamib	CLOSED
06/10-05	Robert Budnitz to discuss NEI letter with RISC and propose a recommended response for SB consideration.	Robert Budnitz	CLOSED
06/10-07	Chuck Moseley, Steve Stamm, and Michael Wright to serve as the 2011 Standards Service Award Ad hoc Committee.	Chuck Moseley, Steve Stamm, Michael Wright	CLOSED
06/10-09	Donald Spellman to define what international participation is desired.	Donald Spellman	OPEN
06/10-10	The Standards Board Vice Chair and consensus committee chairs to serve on an ad hoc committee to develop, on a yearly basis, a list of priority standards that are in need of funding from an outside source.	Donald Spellman & consensus committee chairs	CLOSED

The logo of the American Nuclear Society (ANS) is a circular emblem. It features a central stylized atomic symbol with a nucleus and three orbiting electrons. The letters 'A', 'N', and 'S' are arranged around the central symbol. The words 'AMERICAN NUCLEAR SOCIETY' are written in a circular path around the inner border of the emblem.

ANS Standards Committee Activity Update

N. Prasad Kadambi,
Chair, ANS Standards Board

June 30, 2011

The logo of the American Nuclear Society (ANS) is a circular emblem. It features a central stylized atomic symbol with a nucleus and three orbiting electrons. The letters 'A', 'N', and 'S' are arranged around the central symbol. The words 'AMERICAN NUCLEAR SOCIETY' are written in a circular path around the inner border of the emblem.

ANS Standards Committee

Outlook

- The challenges and opportunities facing the Standards Committee substantially increased recently with
 - the imminent restructuring of ANS, and
 - the Fukushima earthquake and its nuclear consequences.
- The Standards Board understands that the standards activity needs to do its share to enhance ANS's value proposition consistent with a vision now emerging.
- The relevance of ANS's technical capabilities has increased on several fronts, including in regards to the merger of ANS and ASME PRA related bodies.
- With the ANS BOD pointing the way, the Standards Committee can and should be a leader in the worldwide efforts to make nuclear technology safer and cheaper.



ANS- ASME Activities

- We have moved forward on the ANS BOD's conditional approval of the merger of ANS and ASME PRA bodies subject to resolution of certain equity, scope, and procedural issues.
- Recent discussions between ANS and ASME at an increased level of detail are revealing areas within these issues where resolution may take longer than originally expected.
- Nothing that has surfaced impedes continued progress on the PRA standards currently being worked (Level 1, Level 2, Level 3, and Low-Power Shut-Down standards).
- The BOD can expect to see in the near future improvements in the level of clarity regarding each society's roles and responsibilities, as well as resource implications of collaborative activities.
- We request the BOD to ensure that the needs of the ANS Standards Committee are fully considered as restructuring plans are implemented.



Status of Standards Board Initiatives

- The ANS continues to be an active participant of the Nuclear Energy Standards Coordination Collaborative (NESCC) and participates on several task groups.
- Incoming Standards Board Chair, Donald Spellman, has already become very involved with the NESCC in representation of ANS and heads a task group to develop a priority list of standards needed by the industry.
- A technical session was held yesterday, June 29th, to discuss the "package" of ANS standards that most closely support events at Japan's Fukushima plants and determine which ones may need review, update, or development.
- The Standards Committee continues to monitor the need for standards on small modular reactors.
- We continue outreach with industry to increase awareness of public review opportunities and notification of new standards.



ANS Standards Committee

Activities and Highlights

- In collaboration with ANS President Joe Colvin, Standards Committee members provided comments to a *Federal Register* notice on federal agency participation in standardization.
- In compliance with an audit of the standards program in 2010, a revised set of ANS Standards Committee Rules and Procedures was submitted to and approved by the American National Standards Institute (ANSI) in January 2011.
- Year-to-date, we have received ANSI approval of 3 new standards, 1 revised standard, and 2 reaffirmations of current standards.
- Two standards have been published this year; 6 standards were issued for public review; 2 responses to inquiries on standards were released.
- The Standards Committee approved the initiation of 7 standards projects.
- The Standards Board reviewed and approved the balance of interest of the 4 consensus committees.



Standards Board Changes

- With the close of this meeting, the Standards Board will be under new leadership.
- Current Standards Board Vice-Chair, Donald J. Spellman, will assume the chair position.
- James August will step into the role of Standards Board Vice-Chair.
- Current Standards Board Chair, Prasad Kadambi, will continue to support the Standards Board as ISO TC 85/SC 6 Liaison.

Memorandum of Understanding between the American Nuclear Society (ANS) and the American Society of Mechanical Engineers (ASME)

The American Society of Mechanical Engineers (ASME) and the American Nuclear Society (ANS) wish to strengthen their cooperative efforts in order to enhance the ability of both organizations to respond to the needs of their stakeholders in support of the commercial nuclear power industry on a global basis.

The purpose of this memorandum of understanding (MOU) is to promote greater cooperation and collaboration between ANS and ASME within the field of risk technology.

Currently, ASME and ANS are operating under an agreement for the combined probabilistic risk assessment (PRA) standard. The PRA standard's scope includes Level 1 (including LERF), Level 2, and Level 3. ASME has published and maintains the combined PRA standard for Level 1 (including LERF), and ANS is developing and will publish and maintain the combined PRA standard for Level 2 and Level 3.

ANS and ASME agree to form a new Joint Committee on Nuclear Risk Management (JCNRM). JCNRM is responsible for Standards Development / Maintenance in the subject areas shown in Table 1. The JCNRM may also address emerging risk management standards development areas such as those shown in Table 2. Inclusion of these additional development areas and interfaces are subject to review by the governing boards, i.e., the ASME Board on Nuclear Codes and Standards (BNCS) and the ANS Standards Board (SB), as these needs arise. The cognizant staff members of ASME and ANS will address publication and maintenance of additional standards related to these development areas. Further, JCNRM may be tasked with reviewing / commenting on risk technology related proposed provisions of standards developed by other ASME / ANS Standards Committees at the request of those Standards Committees (see Table 3 for examples).

Deleted: The Charter for the JCNRM will include the PRA Standard.

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JCNRM will operate under procedures approved by ASME and ANS. ASME will provide the Secretary for JCNRM.

Other more specific proposals and agreements on matters related to the above may be entered into as the need arises and by mutual agreement.

The terms of this MOU apply only to the extent of available funding by both parties.

Both parties will make every effort to comply with this MOU unless such compliance is in direct conflict with the laws, regulations, or stated government policy. Both parties will make every effort to accept and follow in practice Section IX, Decision of the Committee on Principles for the Development of International Standards of Revision 8 (G/TBT/1/Rev.8) announced by the World Trade Organization, Committee on Technical Barriers to Trade May 23, 2002.

Neither party shall use the logos and trademarks of the other party without prior written consent and compliance with the owner's policies on the use of such marks. Further, each organization will respect the copyright policy of the other organization and agrees that intellectual property will not be republished without prior written permission from the originating organization.

ASME and ANS agree to regularly review this MOU to ensure it meets its stated purpose.

This MOU shall remain in effect unless terminated by either party upon giving 90 days written notice of intention to terminate.

American Nuclear Society

Date

The American Society of Mechanical Engineers

Date

Table 1.Current Standards Development / Maintenance Undertaken by JCNRM:

1. At-Power Internal Hazards Levels 1, 2 and 3
2. Low Power/Shutdown Internal Hazards Levels 1, 2 and 3
3. External Hazards At-Power and Low Power/Shutdown (including Seismic)
4. Fire PRA At-Power and Low Power/Shutdown
5. Spent Fuel Pool PRA
6. Risk Management Independent Decision Making
7. Assessment of Aggregate Effects

Table 2.Potential Future Standards Development:

1. Uncertainty Analysis
2. Data Analysis
3. Dry Cask Storage PRA
4. Spent Fuel Shipping & Handling PRA
5. PRA for Instrumentation
6. Probabilistic Threat Assessment (Security)
7. Qualification of PRA Personnel
8. General PRA Update Process
9. Specific PRA Update Process

Table 3.Resource for Other Standards Committees' Activities:

1. Severe Wind PRA (ANS-58.21),
2. PRA Software Quality Assurance (NQA-1),
3. Risk Significance Categorization (ANS),
4. RI-IST (ASME OM),
5. RI-ISI (ASME SCXI),
6. RI Emergency Planning (ANS),
7. Work Activity Risk Assessment (ASME OM),
8. RI-MOV Program (ASME OM),
9. RI-Procurement Program (ASME NQA-1),
10. RI Equipment Qualification Program (QME-1),
11. RI Categorization Process for Passive, Inherently Reliable Structures, Systems, and Components (SC XI),
12. Risk-Informed Safety Classification (ANS),
13. RI Design Engineering Program (SC III)

RISC Chairman's Report

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Standards in Development

ANS-58.22-201x, "Low Power Shutdown PRA Methodology"

- Writing group is led by Don Wakefield, underway since 1999
- Reballot was issued due to substantive changes
- Reballot closed October 2008 with 674 committee comments and 116 public comments
- Comment responses and a revised draft were issued to RISC in November 2009
- Working group is resolving the remaining issues before issuing a revised draft for another ballot anticipated 3rd quarter of 2011
- Whether this standard will be balloted for release under the TUPA policy ("Trial Use and Pilot Applications") remains uncertain at this time.

ANS/ASME-58.24-201x, "Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications"

- Writing group is led by Mark Leonard, underway since 2005
- Draft issued to RISC & ASME CNRM for preliminary review in January 2010
- Comments were provided to the working group for consideration in May 2010
- Waiting for NRC comments on the preliminary review
- The working group held a two-day meeting at ANS on August 23 & 24, 2010
- Ballot date to be determined; tentatively anticipated 3rd quarter of 2011
- Almost certainly will be released for ballot under the TUPA policy.

ANS/ASME-58.25-201x, "Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications"

- Writing group is led by Keith Woodard, underway since 2005
- Draft issued to RISC & ASME CNRM for preliminary review in October 2009
- Comments were provided to the working group for consideration in February 2010
- Bulk of NRC comments were provided to the working group in April 2010
- Draft issued for TUPA ballot to RISC & CNRM November 2010
- TUPA ballot closed March 2011
- Ballot comments are being resolved, to be followed by another ballot.
- Schedule for comment resolution is not clear, but is at least a few months away.
- Unsure whether this standard will be issued under the TUPA Policy. Will be resolved when the next ballot occurs.

ANS RISC Merger with ASME CNRM to form a new "Joint Committee on Nuclear Risk Management:"

The RISC met on September 20 & 23, 2010, in a joint meeting with the ASME CNRM in Boston, Massachusetts. The organizational structure and member assignments for the proposed Joint Committee on Nuclear Risk Management (JCNRM) were discussed as well as project status. Earlier, the ANS Standards Board had approved the establishment of the merged joint committee at its meeting in June 2010, and the SB also approved the proposed "JCNRM Rules and Operating Procedure", but with the condition that certain administrative and financial-business issues be resolved - although as of now, a year later, they have not yet been resolved. A ballot for approval of the JCNRM was issued to the ASME Board of Nuclear Codes and Standards with a due date of October 20, 2010. Comments are currently being resolved. The ANS Standards Board will be notified of any proposed changes to the

JCNRM procedures that emerge from the ASME process. It is anticipated that the result of the ASME-BNCS process will be approval by the BNCS of the JCNRM, but with some proposed changes to the draft “JCNRM Rules and Operating Procedure.” The proposed changes, which are being followed closely by the RISC Chairman, are not considered to be substantive—“a lot of little noodling and some modest improvements that are not controversial.” However, the proposed revised draft must of course be forwarded to the ANS Standards Board for its review and approval. This SB approval, if it occurs, should be almost the final step before the JCNRM can come into existence.

There is one more substantive issue to be resolved between ANS and ASME, and that is the set of financial and administrative questions involving both revenue sharing and the sharing of staff and other costs between the two societies. Revenue sharing: There are no new PRA standards coming up for release in the next few months under the proposed new JCNRM for which the revenue-sharing issue comes into play. There is also a revenue-sharing agreement already in place for the revenues realized from the existing joint ANS-ASME PRA combined standard. Because this should serve as a model for any new revenue sharing agreement, the negotiations on a new revenue sharing agreement should be straightforward and non-controversial. Staff and other costs: The issue of costs, specifically staff costs, still remains to be discussed between ANS and ASME staff, but is not considered a showstopper issue. Proposal for SB consideration and action: The proposal from the RISC Chairman, Robert J. Budnitz, joined in by the ASME CNRM Chairman, C. Rick Grantom, therefore is to bring the new JCNRM into existence as soon as the “JCNRM Rules and Operating Procedure” is finalized and concurred in by the ANS SB, but even if the financial negotiations are not yet complete. The SB will be asked by the RISC Chairman to consider this proposal during its regular June meeting in Hollywood, FL. The alternative is the wait for the financial and administrative issues to be settled before bringing the JCNRM into formal existence.

In the meantime, the ANS RISC Committee’s activities have mostly been informally folded into those of the proposed new JCNRM, as have the activities of the ASME CNRM. The only activity that remains exclusively under the RISC Committee is the ballot process and its associated comment-resolution process for the three standards discussed above – all of these are still under ANS RISC exclusively. (The corresponding ballot process, etc., for ASME’s standards are still under ASME, a parallel arrangement. And the existing Combined ASME-ANS PRA standard remains under joint ANS-ASME management as before.) A joint ANS RISC-ASME CNRM meeting as held in Seattle in January 2011, and we ran it as if it were a joint JCNRM meeting, in every way except when formal motions came up. A subcommittee structure for the JCNRM has been developed, and this subcommittee structure is actually up-and-running, albeit informally.

RISC Meeting

The RISC is not planning to meet during the June 2011 ANS Meeting. The next meeting is planned together with the ASME CNRM in September 2011 in Chicago, and we plan to run it (like the one in Seattle in January 2011) as an informal “joint JCNRM” meeting.

Standards Inquiries and Delinquent Standards

The RISC has not received any standards inquiries and does not have any delinquent standards in need of maintenance.

Issues with PRA Standard

- Stability of the standard is a key factor in support of risk-informed regulatory activities
- Commission noted in PRA Policy Statement:
 - PRA applications should be implemented in a consistent and predictable manner that promotes regulatory stability and efficiency
- Stable standard
 - Requirements developed at the “what to do” level
 - Requirements written in a clear, consistent and cohesive manner
 - Minimal future changes anticipated
- Standard becomes more challenging to fix over time
- Problems with standard will be exacerbated as new standards are developed

Addendum B to ASME/ANS

RA-Sa-2009

- NRC formally submitting comments as part of the public review and comment
 - Significant concerns with Addendum B
 - Joint standard (RA-S-2008 and RA-Sa-2009) was a significant accomplishment by ASME and ANS
 - NRC and other major stakeholders recognized that major issues remained that were to be addressed in Addendum B
- Addendum B did not accomplish the expectations

Status of Current and Future Standards

- Standards need to be well vetted by the standards committee (JCNRM), not just by the writing team, to ensure all stakeholders concerns are identified and addressed
- For standards to be thoroughly reviewed, the various standards must be prioritized so appropriate time and resources are allocated
- Regarding risk-informed regulatory needs, standards not in sync with NRC needs
- For example, standards on advanced LWRs is a high priority to NRC, and staff will commence developing its own guidance

N16 Chairman's Report

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PINS in Development (1)

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

PINS in Approval Process/Resolving Comments (2)

- ANS-8.25, "Development of Nuclear Criticality Safety Related Postings" (new standard — ballot to withdraw project initiated)
- ANS-8.29, "Nuclear Criticality Safety in Fuel Reprocessing Facilities" (new standard)

Standards in Development – Approved PINS (9)

- ANS-8.1, "Nuclear Criticality Safety in Operations With Fissionable Materials Outside Reactors" (revision of ANSI/ANS-8.1-1998 (R2007))
- ANS-8.3, "Criticality Accident Alarm System" (revision of ANSI/ANS-8.3-1997 (R2003))
- 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 (R2011))
- 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-8.20, "Nuclear Criticality Safety Training" (revision of ANSI/ANS-8.20-1991 (R2005))
- ANS-8.21, "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors" (revision of ANSI/ANS-8.21-1995 (R2011))
- ANS-8.28, "Administrative Practices for the Use of Non-Destructive Assay Measurements for Nuclear Criticality Safety" (new standard)

Standards Approved by N16 (3)

- ANSI/ANS-8.6-1983 (R2011), "Safety in Conducting Subcritical Neutron-Multiplication Measurements in Situ" (reaffirmation approved by ANSI 11/16/10)
- ANSI/ANS-8.12-1997 (R2011), "Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors" (reaffirmation approved by ANSI 2/11/11)
- ANSI/ANS-8.21-1995 (R2011), "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors" (reaffirmation approved by ANSI 5/19/11)

Responses to Inquiries (1)

An inquiry was received 5/9/11 on ANSI/ANS-8.3-1997 (R2003), "Criticality Accident Alarm System Inquiry." A response is being drafted/approved.

Delinquent Standards – 5+ Years Since ANSI Approval (6)

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

- ANSI/ANS-8.10-1983 (R2005), “Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement” (revision initiated)
- ANSI/ANS-8.14-2004, “Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors” (reaffirmation initiated)
- ANSI/ANS-8.15-1981 (R2005), “Nuclear Criticality Control of Special Actinide Elements” (revision initiated)
- ANSI/ANS-8.19-2005, “Administrative Practices for Nuclear Criticality Safety” (revision initiated)
- ANSI/ANS-8.20-1991 (R2005), “Nuclear Criticality Safety Training” (revision initiated)

N17 Chairman's Report

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PINS in Development (2)

- ANS-6.4.3, "Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering Materials" (reinvigoration of historical standard ANSI/ANS-6.4.3-1991)
- ANS-15.20, "Criteria for the Reactor Control and Safety Systems of Research Reactors" (new standard)

Standards in Development – Approved PINS (13)

- ANS-5.1, "Decay Heat Power in Light Water Reactors" (revision of ANSI/ANS-5.1-2005)
- ANS-6.1.2, "Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants" (revision of ANSI/ANS-6.1.2-1999 (R2009))
- ANS-10.7, "Non-Real Time, High Integrity Software for the Nuclear Industry" (new standard)
- ANS-15.2, "Quality Control for Plate-Type Uranium-Aluminum Fuel Elements" (revision of ANSI/ANS-15.2-1999 (R2009))
- ANS-15.8, "Quality Assurance Program Requirements for Research Reactors" (revision of ANSI/ANS-15.8-1995 (R2005))
- ANS-15.17, "Fire Protection Program Criteria for Research Reactors" (reinvigoration of historical standard ANSI/ANS-15.17-1981 (R2000))
- ANS-15.19, "Shipment and Receipt of Special Nuclear Material (SNM) by Research Reactor" (reinvigoration of historical standard ANSI/ANS-15.19-1991)
- ANS-15.21, "Format and Content for Safety Analysis Reports for Research Reactors" (revision of ANSI/ANS-15.21-1996 (R2006))
- ANS-19.1, "Nuclear Data Sets for Reactor Design Calculations" (revision of ANSI/ANS-19.1-2002 (R2011))
- ANS-19.9, "Delayed Neutron Parameters for Light Water Reactors" (new standard)
- ANS-19.11, "Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors" (revision of ANSI/ANS-19.11-1997 (R2011))
- ANS-19.12, "Nuclear Data for the Production of Radioisotope" (new standard)

Standards at Ballot/Resolving Comments (1)

- ANS-19.3, "Determination of Steady-State Neutron Reaction-Rate Distributions and Reactivity of Nuclear Power Reactors" (revision of ANSI/ANS-19.3-2005)

Standards Approved by N17 (3)

- ANSI/ANS-19.1-2002 (R2011), "Nuclear Data Sets for Reactor Design Calculations" (reaffirmation approved by ANSI 6/2011)
- ANSI/ANS-19.6.1-2011, "Reload Startup Physics Tests for Pressurized Water Reactors," (revision to ANSI/ANS-19.6.1-2005 approved by ANSI 1/13/2011)
- ANSI/ANS-19.11-1997 (R2011), "Calculation and Measurement of the Moderator Temperature Coefficient of Reactivity for Pressurized Water Reactors" (reaffirmation approved by ANSI 6/2011)

Responses to Inquiries (1)

An inquiry was received 4/25/11 on ANSI/ANS-5.1 (Versions 1979, 1994, 2005), "Decay Heat Power in Light Water Reactors." A response is in development/approval.

Delinquent Standards — 5+ Years Since ANSI Approval (3)

- ANSI/ANS-5.1-2005, "Decay Heat Power in Light Water Reactors" (revision initiated)
- ANSI/ANS-10.5-2006, "Accommodating User Needs in Scientific and Engineering Computer Software Development"
- ANSI/ANS-15.8-1995 (R2005), "Quality Assurance Program Requirements for Research Reactors" (revision initiated)

NFSC Chairman's Report

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I. PINS Activities (11)

A. PINS in Preparation (4)

	Status	SC
(1) ANS-5.10 , Airborne Release Fractions at Non-Reactor Nuclear Facilities	in development by WG	ANS-24
(2) ANS-40.21 , Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds (new standard)	in development by WG	ANS-25
(3) ANS-40.35 , Volume Reduction of Low-Level Radioactive Waste or Mixed Waste (reinvigoration of historic standard ANSI/ANS-40.35 1991)	in development by WG	ANS-27
(4) ANS-50.1 , Nuclear Safety Criteria for the Design of Light Water Reactor Plants (new standard)	in development by WG	ANS-29

B. PINS in NFSC Approval Process (3)

	Status	SC
(1) ANS-2.8 , Guidelines for Design Basis and Beyond Design Basis External Flood Evaluation at Nuclear Facilities (reinvigoration of historic standard ANSI/ANS-2.8-1992)	ballot extended to July 1, 2011	ANS-25
(2) ANS-2.31 , Standard for Estimating Extreme Precipitation at Nuclear Facility Sites (new standard)	resolving comments/under revision	ANS-25
(3) ANS-2.32 , Guidance on the Selection and Evaluation of Remediation Methods for Subsurface Contamination (new standard)	resolving comments/under revision	ANS-27

C. PINS Approved by NFSC (4)

	Status	SC
(1) ANS-3.2 , Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants (revision of ANSI/ANS-3.2-2006)	approved/submitted to ANSI	ANS-21
(2) ANS-3.4 , Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants (revision of ANSI/ANS-3.4-1996 (R2002))	approved/submitted to ANSI	ANS-21
(3) ANS-3.5 , Nuclear Power Plant Simulators for Use in Operator Training and Examination (revision of ANSI/ANS-3.5-2009)	under SB review	ANS-21
(4) ANS-58.8 , Time Response Design Criteria for Safety-Related Operator Actions (revision ANSI/ANS-58.8-1994 (R2008))	revised PINS approved/submitted to ANSI	ANS-22

II. Standards Activities (38)

A. Standards and Draft Standards in Development with Approved PINS (21)

	Status	SC
(1) ANS-2.2 , Earthquake Instrumentation Criteria for Nuclear Power Plants (revision of ANSI/ANS-2.2-2002)	in development by WG	ANS-25
(2) ANS-2.9 , Evaluation of Ground Water Supply for Nuclear Facilities (reinvigoration of historical standard ANSI/ANS-2.9-1980 (R1989))	in development by WG	ANS-25
(3) ANS-2.15 , Criteria for Modeling and Calculating Atmospheric Dispersion of Routine Radiological Releases from Nuclear Facilities (new standard)	in development by WG	ANS-24
(4) ANS-2.16 , Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities (new standard)	in development by WG	ANS-24
(5) ANS-2.25 , Surveys of Terrestrial Ecology Needed to License Thermal Power Plants (reinvigoration of historical standard ANSI/ANS-2.25-1982 (R1989))	in development by WG	ANS-25

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(6) ANS-2.30 , Assessing Capability for Surface Faulting at Nuclear Facilities (new standard)	in development by WG	ANS-25
(7) ANS-3.1 , Selection, Qualification, and Training of Personnel for Nuclear Power Plants (reinvigoration of historical standard ANSI/ANS-3.1-1993 (R1999))	in development by WG	ANS-21
(8) ANS-3.2 , Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants (revision of ANSI/ANS-3.2-2006)	in development by WG	ANS-21
(9) ANS-3.4 , Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants (revision of ANSI/ANS-3.4-1996 (R2002))	in development by WG	ANS-21
(10) ANS-3.8.1 , Criteria for Radiological Emergency Response Functions and Organizations for Nuclear Facilities (reinvigoration of historic standard ANSI/ANS-3.8.1-1995)	to be initiated after ANS-3.8.7 drafted	ANS-26
(11) ANS-3.8.2 , Criteria for Functional and Physical Characteristics of Radiological Emergency Response Facilities at Nuclear Facilities (reinvigoration of historic standard ANSI/ANS-3.8.2-1995)	to be initiated after ANS-3.8.7 drafted	ANS-26
(12) ANS-3.8.3 , Criteria for Radiological Emergency Response Plans and Implementing Procedures and Maintaining Emergency Response Capability for Nuclear Facilities (reinvigoration and consolidation of historic standards ANSI/ANS-3.8.3-1995 and ANSI/ANS-3.8.4-1995)	to be initiated after ANS-3.8.7 drafted	ANS-26
(13) ANS-3.8.6 , Criteria for the Conduct of Offsite Radiological Assessment for Emergency Response and Emergency Radiological Field Monitoring, Sampling and Analysis for Nuclear Facilities (reinvigoration and consolidation of historic standards ANSI/ANS-3.8.5-1992 and ANSI/ANS-3.8.6-1995)	to be initiated after ANS-3.8.7 drafted	ANS-26
(14) ANS-3.8.7 , Criteria for Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities (reinvigoration of historic standard ANSI/ANS-3.8.7-1998)	in development by WG	ANS-26
(15) ANS-3.8.10 , Criteria for Modeling Real-time Accidental Release Consequences at Nuclear Facilities (new standard)	in development by WG	ANS-24
(16) ANS-18.1 , Radioactive Source Term for Normal Operation of Light Water Reactors (reinvigoration of historical standard ANSI/ANS-18.1-1999)	in development by WG	ANS-24
(17) ANS-51.10 , Auxiliary Feedwater System for Pressurized Water Reactors (revision of ANSI/ANS-51.10-1991 (R2008))	in development by WG	ANS-22
(18) ANS-54.1 , General Safety Design Criteria for a Liquid Sodium Reactor Nuclear Power Plants (reinvigoration of historical standard ANSI/ANS-54.1-1989)	in development by WG	ANS-29
(19) ANS-56.8 , Containment System Leakage Testing Requirements (revision of ANSI/ANS-56.8-2002)	in development by WG	ANS-21
(20) ANS-58.8 , Time Response Design Criteria for Safety-Related Operator Actions (revision of ANSI/ANS-58.8-1994 (R2008))	in development by WG	ANS-22
(21) ANS-58.16 , Safety Classification and Design Criteria for Non-Reactor Nuclear Facilities (new standard)	in development by WG	ANS-22

B. Standards and Draft Standards at Ballot or Comment Resolution (5)

	Status	SC
(1) ANS-2.21 , Criteria for Assessing Atmospheric Effects On the Ultimate Heat Sink (new standard)	resolving comments/revising draft	ANS-25

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(2) 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
(3) ANS-53.1 , Nuclear Safety Design Process for Modular Helium-Cooled Reactor Plants (new standard)	comment responses and revised draft being considered by negative balloters. Recirculation ballot to be issued.	ANS-28
(4) ANSI/ANS-56.8-2002 , Containment System Leakage Testing Requirements (reaffirmation)	with SB for certification	ANS-21
(5) ANSI/ANS-57.8-1995; R2005 , Fuel Assembly Identification (reaffirmation)	NFSC ballot comments being considered	ANS-27

C. Standards Approved by NFSC/SB/ANSI (4)

	Status	SC
(1) ANSI/ANS-2.3-2011 , Estimating Tornado, Hurricane, and Extreme Straight-Line Wind Characteristics at Nuclear Facility Sites (reinvigoration of historical standard ANSI/ANS-2.3-1983)	approved by ANSI April 22, 2011 and published	ANS-25
(2) ANSI/ANS-2.17-2010 , Evaluation of Subsurface Radionuclide Transport at Commercial Nuclear Power Plants (reinvigoration of historical standard ANSI/ANS-2.17-1980 (R1989))	approved by ANSI December 23, 2010 and published	ANS-25
(3) ANSI/ANS-5.4-2011 , Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel (reinvigoration of historical standard ANSI/ANS-5.4-1982)	approved by ANSI May 19, 2011 and in production	ANS-24
(4) ANSI/ANS-58.14-2011 , Safety and Pressure Integrity Classification Criteria for Light Water Reactors (reinvigoration of historical standard ANSI/ANS-58.14-1993)	approved by ANSI April 22, 2011 and in production	ANS-22

D. Delinquent Standards Needing Revision or Reaffirmation (8)

	Status	SC
ANSI/ANS-2.2-2002 , Earthquake Instrumentation Criteria for Nuclear Power Plants	revision in development	ANS-25
ANSI/ANS-2.10-2003 , Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation	new WG chair	ANS-21
ANSI/ANS-3.4-1996 (R2002) , Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	revision in development	ANS-21
ANSI/ANS-57.1-1992 (R2005) , Design Requirements for Light Water Reactor Fuel Handling Systems	inactive WG	ANS-27
ANSI/ANS-57.5-1996 (R2006) , Light Water Reactors Fuel Assembly Mechanical Design and Evaluation	inactive WG	ANS-22
ANSI/ANS-58.6-1996 (R2001) , Criteria for Remote Shutdown for Light Water Reactors	inactive WG	ANS-21
ANSI/ANS-58.11-1995 (R2002) , Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	inactive WG	ANS-22
ANSI/ANS-59.3-1992 (R2002) , Nuclear Safety Criteria for Control Air Systems	inactive WG	ANS-22

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III. Standards Inquiries (4)

A. Responses to Standards Inquiries (4)

	Status	SC
(1) ANSI N271-1976 (ANS-56.2) , Containment Isolation Provisions for Fluid Systems (Inquiry received 2/14/11)	issued May 2011	ANS-22
(2) ANSI/ANS-3.4-1983 , Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants (Inquiry received 8/13/09)	issued November 2010	ANS-21
(3) ANSI/ANS-58.2-1988 , Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture (Inquiry received 5/21/10)	in development by WG	ANS-24
(4) ANSI/ANS-58.14-1993 , Safety and Pressure Integrity Classification Criteria for Light Water Reactors (Inquiry received 1/24/11)	at NFSC ballot until June 30, 2011	ANS-22

**American Nuclear Society
N16, NUCLEAR CRITICALITY SAFETY
BALANCE OF INTEREST BY CATEGORY
2011**

Vendors (3)

Calvin D. Manning, AREVA-NP
W. Randy Shackelford, Nuclear Fuel Services, Inc.
Larry L. Wetzel, Babcock & Wilcox Nuclear Operations Group

Consultants (2)

Raymond L. Reed, URS Safety Management Solutions, LLC
Richard G. Taylor, INM Nuclear Safety Services

Government Agencies (3)

Thomas Marenchin, U.S. Nuclear Regulatory Commission
Burton Rothleder, U.S. Department of Energy
Robert E. Wilson, U.S. Department of Energy

National Laboratories (2 members w/1 vote)

*R. Michael Westfall, Oak Ridge National Lab.
*Davis A. Reed, Oak Ridge National Lab.†

Universities (2)

Robert D. Busch, University of New Mexico
Ronald E. Pevey, University of Tennessee

Societies (3)

Robert S. Eby, AIChE Representative (Employed by USEC)
Ronald Knief, Institute of Nuclear Materials Management (Employed by SNL)
Scott P. Murray, Health Physics Society (Employed by GE)

Individuals (2)

George H. Bidinger
Calvin M. Hopper

TOTAL = 17 members with 16 votes (*2 ORNL members share 1 vote)

†denotes subcommittee chair (Ex Officio member)

Vote Summary

Vendors	3
Consultants	2
Government Agencies	3
National Laboratories	1
Universities	2
Societies	3
Individuals	2
TOTAL	16

Revised 4/15/2011

AMERICAN NUCLEAR SOCIETY
N17, RESEARCH REACTORS, REACTOR PHYSICS,
RADIATION SHIELDING & COMPUTATIONAL METHODS
BALANCE OF INTEREST BY CATEGORY
2011

Owners (1)

Ray Tsukimura, Aerotest Operations, Inc.

Vendors (2)

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

Consultants (1)

Charles Rombough, CTR Technical Services, Inc.

Government Agencies (5 members w/3votes)

Matthew A. Hutmaker, Jr., U.S. Department of Energy
Patrick Madden / Alexander Adams, U. S. Nuclear Regulatory Commission
*Tawfik Raby, National Institute of Standards & Technology
 *D. Sean O’Kelly, National Institute of Standards & Technology†
 *Seymour Weiss, National Institute of Standards & Technology

National Laboratories (3)

Dimitrios Cokinos, Brookhaven National Lab.†
Theodore Schmidt, Sandia National Lab.†
Andrew Smetana, Savannah River National Lab.†

Universities (4)

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

Societies (4)

William H. Bell, AIChE (Employed by South Carolina Electric & Gas Co.)
Michael L. Corradini, NCRP (Employed by University of Wisconsin-Madison)
Richard Brey, HPS (Employed by Idaho State University)
James Miller, IEEE (GAMMA-METRICS) (Employed by James F. Miller Consulting Services)

Individuals (5)

Robert E. Carter
Brian K. Grimes
Laurence Kopp
Jack Olhoeft
Abraham Weitzberg

TOTAL = 25 members with 23 votes (*3 NIST members share 1 vote)

† denotes subcommittee chair (Ex Officio member)

Vote Summary:

Owners	1
Vendors	2
Consultants	1
Government Agencies	3
National Laboratories	3
Universities	4
Societies	4
Individuals	5
TOTAL	23

**American Nuclear Society
Nuclear Facilities Standards Committee - NFSC
Balance of Interest by Category
2011**

Owners (4)

William Bell, South Carolina Electric & Gas Company
Charles Brown, Southern Nuclear Operating Company†
Peter Hastings, Duke Energy (NuStart Liaison)
R. Michael Ruby, Constellation Energy

Vendors (4 votes)

Kevin Bryson, Holtec International†
Robert McFetridge, Westinghouse Electric Company (existing reactors)
Timothy Meneely, Westinghouse Electric Company (new reactors)
Dennis Newton, AREVA-NP†

Architect-Engineers (5 members w/3 votes)

*Jeffery Brault, Shaw MOX Project
*Carl Mazzola, Shaw Environmental & Infrastructure, Inc.
*Steven Stamm, Shaw Nuclear Services
James Saldarini, Bechtel Power Corporation
J. Andrew Wehrenberg, Southern Nuclear Operating Company†

Consultants (4)

James August, CORE, Inc.†
Donald Eggett, Automated Engineering Services Corp. †
Richard Hill, ERIN Engineering and Research, Inc.
Evan Lloyd, Exitech Corporation†

Government Agencies (3)

C. E. (Gene) Carpenter, U.S. Nuclear Regulatory Commission†
Pranab Guha, U.S. Department of Energy
Lawrence Zull, Defense Nuclear Facilities Safety Board

National Laboratories (2)

Sheila Lott, Los Alamos National Laboratory
Donald Spellman, Oak Ridge National Laboratory (NFSC Liaison to IEEE NPEC)†

Societies (1)

Charles Moseley, ASME NQA Liaison

Individuals (5)

Richard Englehart
N. Prasad Kadambi
William Reuland
John Stevenson
Michael Wright

TOTAL = 28 members with 26 votes (*3 Shaw Group members share 1 vote)

†denotes subcommittee chair (Ex Officio member)

Vote Summary:

Owners	4
Vendors	4
Architect-Engineers	3
Consultants	4
Government Agencies	3
National Laboratories	2
Societies	1
Individuals	5
TOTAL	26

Revised 5/9/2011

**AMERICAN NUCLEAR SOCIETY
RISK INFORMED STANDARDS CONSENSUS COMMITTEE (RISC)
BALANCE INTEREST BY CATEGORY
2011**

Owners (3)

Biff Bradley, Nuclear Energy Institute
Kenneth Kiper, FPL Energy Company
Greg Krueger, Exelon Nuclear

Vendors (3)

Dennis Henneke, General Electric
David Finnicum, Westinghouse (Combustion Engineering)
Stanley Levinson, AREVA-NP

Consultants (4)

Paul Amico, SAIC
Rick A. Hill, ERIN Engineering and Research, Inc.
Gene Hughes, ETRANCO
Donald Wakefield, ABS Consulting

Government Agencies (2)

Richard Black, U.S. DOE
Mary Drouin, U.S. NRC

National Laboratories (3)

Robert Bari, Brookhaven National Laboratory
Robert J. Budnitz, Lawrence Berkeley National Laboratory
Allen Camp, Los Alamos National Laboratory

Individual (2)

M. K. (Ravi) Ravindra
Jean Savy

TOTAL = 17 members

Vote Summary:

Owners	3
Vendors	3
Consultants	4
Government Agencies	2
National Laboratories	3
Individuals	2
TOTAL	17

Revised 4/15/2011

Staff Report

June 2011

Standards Development

Year-to-date, we have received approval of the American National Standards Institute of three new standards, one revised standard, and two reaffirmations of current standards. Three standards have been published this year; six standards were issued for public review; and two responses to inquiries on standards were released. The Standards Committee approved the initiation of seven standards projects.

In compliance with an audit of the standards program in 2010, a revised set of operating procedures were submitted to and approved by the American National Standards Institute in January 2011.

Standards Committee News

In collaboration with ANS President Joe Colvin, Standards Committee members provided comments to a *Federal Register* notice on federal agency participation in standardization.

Standards Board Chair, N. Prasad Kadambi, was elected to the American National Standards Institute National Policy Committee (NPC) as a voting member effective January 1, 2011. Kadambi will represent ANS in his three-year term. He attended the NPC's first meeting of the year on May 4, 2011.

A technical session will be held Wednesday, June 29th, at the ANS Annual Meeting to discuss the "package" of ANS standards that most closely support events at Japan's Fukushima plants and determine which ones may need review, update, or development.

The Standards Committee continues to monitor the need for standards on small modular reactors and continues outreach with industry to increase awareness of public review opportunities and notification of new standards.

The ANS continues to be an active participant of the Nuclear Energy Standards Coordination Collaborative (NESCC) and participates on several task groups.

With the close of the June 2011 ANS Annual Meeting, the Standards Board will be under new leadership. Current Standards Board Vice-Chair, Donald J. Spellman, will assume the chair position. James August will step into the role of Standards Board Vice-Chair. Current Standards Board Chair, Prasad Kadambi, will continue to support the Standards Board as ISO TC 85/SC 6 Liaison.

Incoming Standards Board Chair, Donald Spellman, has already become very involved with the NESCC in representation of ANS and heads a task group to develop a priority list of standards needed by the industry.

Grant Activities

Probabilistic risk assessment (PRA) standards being developed by the Risk Informed Standards Committee continue to benefit from a grant awarded by the U.S. Nuclear Regulatory Commission. The primary purpose of this grant is to aid in 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). The LPSD and the Level 2 working groups held meetings in early 2011 and continue to make progress on resolving comments from previous ballots. Both groups anticipate issuing revised drafts for committee rebalot in 2011. The review of the Level 3 draft closed in March 2011 with numerous comments that are being addressed.

Formation of ANS/ASME Joint Consensus Committee

The ANS Risk Informed Standards Committee (RISC) and the ASME Committee on Nuclear Risk Management (CNRM) continue to work together on probabilistic risk assessment standards. A proposal is in works for the RISC and the CNRM to merge forming a joint committee. The merger would create a new consensus body called the Joint Committee on Nuclear Risk Management reporting to both the ANS and ASME standards boards. Recent discussions between ANS and ASME at an increased level of detail are revealing areas within these issues where resolution may take longer than originally expected.

Standards Group Meeting at ANS

The ANS-3.2 Working Group met at ANS June 14 and 15, 2011.

Project Activity Report

6/8/2011

NFSC

ANS- 2 . 2	Earthquake Instrumentation Criteria for Nuclear Power Plants	ANS-25	Farhang Ostadan (PhD)	WG Writing Draft
ANS- 2 . 6	Guidelines for Estimating Present & Forecasting Future Population Distributions Surrounding Nuclear Facility Sites	ANS-25	OPEN	CC PINS Comment w/WG
ANS- 2 . 8	Determining Design Basis Flooding at Power Reactor Sites	ANS-25	Yan Gao, PhD	PINS @ CC
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 Dispersion of Routine Radiological 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 . 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	CC Ballot Comment w/ WG
ANS- 2 . 25	Surveys of Terrestrial Ecology Needed to License Thermal Power Plants	ANS-25	Chris Guggino	WG Writing Draft
ANS- 2 . 30	Assessing Capability for Surface Faulting at Nuclear Facilities	ANS-25	James Beavers & Ivan Wong (co-chairs)	WG Writing Draft
ANS- 2 . 31	Standard for Estimating Extreme Precipitation at Nuclear Facility Sites (Unapproved)	ANS-25	John D. Stevenson	CC PINS Comment w/WG
ANS- 2 . 32	Guidance on the Selection and Evaluation of Remediation Methods for Subsurface Contamination (unapproved)	ANS-27	TBD	PINS @ CC
ANS- 3 . 1	Selection, Qualification, and Training of Personnel for Nuclear Power Plants	ANS-21	Julie Sickle (as of 11/10)	WG Writing Draft
ANS- 3 . 2	Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants	ANS-21	Marion Smith	WG Writing Draft
ANS- 3 . 4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	ANS-21	Barbara Stevens	SB PINS Comments w/ WG
ANS- 3 . 5	Nuclear Power Plant Simulators for Use in Operator Training and Examination	ANS-21	James Florence	PINS @ SB
ANS- 3 . 7 . 1	Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies	ANS-26	OPEN	PINS Development
ANS- 3 . 8 . 1	Properties of Radiological Emergency Response Functions and Organizations for Nuclear Facilities -- for RV of 1995 version	ANS-26	Ronald Markovich	SB PINS Comments w/ WG
ANS- 3 . 8 . 2	Properties of Functional and Physical Characteristics of Radiological Emergency Response Facilities at Nuclear Facilities -- for RV of 1995 Criteria for the Functional and Physical Characteristics of Radiological Emergency Response Facilities -- 1995	ANS-26	Ronald Markovich	SB PINS Comments w/ WG

ANS- 3 . 8 . 3	Properties of Radiological Emergency Response Plans and Implementing Procedures and Maintaining Emergency Response Capability for Nuclear Facilities -- for RV of 1995 Criteria for Radiological Emergency Response Plans and Implementing Procedures -- 1995	ANS-26	Ronald Markovich	SB PINS Comments w/ WG
ANS- 3 . 8 . 6	Properties of the Conduct of Offsite Radiological Assessment for Emergency Response and Emergency Radiological Field Monitoring, Sampling and Analysis for Nuclear Facilities	ANS-26	Ronald Markovich	SB PINS Comments w/ WG
ANS- 3 . 8 . 7	Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities -- for RV of 1998	ANS-26	Ronald Markovich	SB PINS Comments w/ WG
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- 40 . 21	Siting, Construction, and Operation of Commercial Low Level Radioactive Waste Burial Grounds	ANS-25	William Dornisfe	CC PINS Comment w/WG
ANS- 40 . 35	Volume Reduction of Low-Level Radioactive Waste or Mixed Waste	ANS-27	Dennis Ferrigno & Mark Gerboth	PINS Development
ANS- 41 . 5	Verification and Validation of Radiological Data for Use in Waste Management and Environmental Remediation	ANS-24	Saleem Salaymeh/Tom Rucker (co-chairs)	CC Ballot Comment w/ WG
ANS- 50 . 1	Nuclear Safety Criteria for the Design of Stationary Light Water Reactor Plants	ANS-22	Mark Linn	PINS Development
ANS- 51 . 10	Auxiliary Feedwater System for Pressurized Water Reactors	ANS-22	Earnestine Johnson	WG Writing Draft
ANS- 53 . 1	Nuclear 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 Sodium Reactor Nuclear Power Plants	ANS-29	George Flanagan	PINS @ SB
ANS- 56 . 8	Containment System Leakage Testing Requirements	ANS-21	Jim Glover	WG Writing Draft
ANS- 57 . 2	Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants	ANS-27	OPEN	CC Ballot Comment w/ WG
ANS- 57 . 3	Design Requirements for New Fuel Storage Facilities at LWR Plants	ANS-27	OPEN OPEN	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	Patrick Salkeld	SB PINS Comments w/ WG
ANS- 58 . 16	Safety Classification and Design Criteria for Non- Reactor Nuclear Facilities -- for NFSC approval 4/2010	ANS-22	Pranab Guha	SB PINS Comments w/ WG

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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	WG Writing Draft
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	Ronald Knief (PhD)	WG Writing Draft
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 . 25	Development of Nuclear Criticality Safety Related Postings	ANS-8	Gerard F. Couture	SB PINS Comments w/ WG
ANS- 8 . 28	Administrative Practices for the Use of Non-Destructive Assay Measurements for Nuclear Criticality Safety	ANS-8	Jerry McKamy	WG Writing Draft
ANS- 8 . 29	Nuclear Criticality Safety in Fuel Reprocessing Facilities		Adolpf Garcia (chair)	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		WG Writing Draft
ANS- 15 . 19	Shipment and Receipt of Special Nuclear Material (SNM) by Research Reactor	ANS-15	Les Foyto	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	Ballot @ CC
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	Bob St. Clair	WG Writing Draft
ANS- 19 . 12	Nuclear Data for the Production of Radioisotope	ANS-19	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

Delinquent Standards

6/8/2011

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 std on 5/19/2000. 11/21/2002- ANSI approved revision. Per Mazzola 6/04 NFSC Report -- reaffirmation should be address in 2006. 11/22/05: Per Dennis Ostrom, this standard could be written for all nuclear facilities -- C. Mazzola suggested preparing a PINS in 2006 to revise for this direction. Looking for new chair. Extension granted until 12/31/2010. 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 std has been transferred from ANS-25 subcommittee to ANS-21. 09/30/02- sent to third ballot to NFSC. ANSI Approved - April 14, 2003; Publication Delivered: June 1, 2004. Extension granted until 12/31/2011. New WGC appointed 5/2011 - Robert Carpenter.

ANS- 3 . 4	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	ANS-21	7/23/2002	7/1/2010	12/31/2010	SB PINS Comments w/ WG	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. Last ext. granted through 7/1/2010. WGC does not feel reaffirmation is appropriate. PINS in development. PINS Vote closed on 12/9/2010 and comments sent to WGC on 12/10/2010. Bill Reuland negative vote changed to accepted on 1/7/2011. PINS sent to SB on 1/13/2011. SB PINS review closed 2/20/11 w/minimal comments provided to WGC 2/21/10. PINS submitted to ANSI on 3/15/2011.
ANS- 56. 8	Containment System Leakage Testing Requirements	ANS-21	11/27/2002	12/31/2010	12/31/2010	WG Writing Draft	Approved 1981. Revised 1987. Was originally N45.4-1972 (ANS-7.60). Revised 1/20/87. Extended to 12/31/94. Revised 8/4/94. 11/27/2002- ANSI approved revision. Suggested at June 04 NFSC meeting to make next revision performed based. J. Glover requested PINS form for revision via phone call 3-21-05. Per e-mail from J. Glover 3-21-05, this standard was made performed based in the 2002 revision. Per 11/10/06 email: WG discussing proper direction for revision - PINS will be submitted before work on draft begins. Extension granted until 12/31/2010. WGC provided PINS to SCC T. Dennis. PINS sent to ANS-21 for approval 8/10/ 2007. PINS reviewed by SB, WGC resolving comments. PINS approved by SB and sent to ANSI 4/30/2010. Reaffirmation process has begun in order to keep the standard current during the ongoing revision 3/31/2011.
ANS- 57. 1	Design Requirements for Light Water Reactor Fuel Handling Systems	ANS-27	7/20/2005		7/20/2010	NONE	Approved 1980. Withdrawn on 3/20/91. Revised 07/28/1992. Reaffirmed 08/12/1998. Per Joe Cohen (4/25/02), Don (WG Chair) is currently in the Ukraine. (8/20/03) - ANSI granted extension until 12/31/2005. Don Gardner suggested reaffirmation & Don Spellman agreed. RF ballot sent to NFSC 1/31/05 -- due 3/31/05. Neg. vote regarding references satisfied with use of reaffirmation statement/label. WG will be to be formed to update references and possible changes to body. A few potential WGM identified. 9/29/10: List of potential WGMs sent to Don Eggett for consideration.

ANS- 57. 5	Light Water Reactors Fuel Assembly Mechanical Design and Evaluation	ANS-27	2/28/2006		2/28/2011	NONE	Approved 1978. Revised 5/14/81. Extended to 12/31/91. SSC approves charter November 1991. 1981 version withdrawn on 12/31/1991. Revision approved 2/8/96. First extension to 12/31/2003. 3/14/2003-ANSI granted ext to 12/31/2005. (7/21/03) - Requested extension from ANSI until 12/31/06. (8/20/03) - ANSI granted LAST extension until 2/7/2006. RF Ballot sent to NFSC 11/29/05. Ballot closed w/o negs. RF granted by ANSI 2/28/2006. Erratum issued in August 2010.
ANS- 57. 8	Fuel Assembly Identification	ANS-27	1/12/2005	12/31/2012	1/12/2010	NONE	Issued first as Published Draft July 1971, ANS-13.8, "Fuel Assembly Identification." Approved as N18.3-1972. Revised 1978. Reaffirmed 9/11/1987. Ref. in RG 5.1. Extended to 12/31/94. 2nd extension to 12/31/97. Revision approved 4/6/95. First extension to 12/31/03. 3/14/2003-ANSI granted LAST ext to 04/05/2005. At ballot for reaffirmation - ballot due 3/22/04. Ballot closed 4/23/04 - Sent ballot tally letter to Fred Pineau per his instructions. 10/04 --No WG Chair available at this time. Looking for new WGC to respond to comments. 12/16/04- Don Spellman gave OK to send to SB for Letter Ballot. 12/17/04 - Letter Ballot sent to Standards Board - due date is 1/4/2005. ANSI approved reaffirmation: 1/12/2005. Ext. granted until 12/31/2012. Jim August, Bill Bell and Mike Wright approved standard for reaffirmation and CC Ballot sent out 4/19/2011.
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 until 8/31/11 -- last ext possible. ANSI/ANS-58.6-1996; R2001 was reviewed by B. Reuland, M. Ruby, P. Guha, and M. Wright. While no detrimental flaws were found, all agreed that the standard would benefit from a revision. Final decision was made 4/2011 to allow the standard to be administratively withdrawn by ANSI in hopes that a team could be found to revise.
ANS- 58. 11	Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors	ANS-22	7/23/2002	7/1/2012	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. Last extension granted through 7/1/2012.

ANS- 59. 3	Nuclear Safety Criteria for Control Air Systems	ANS-22	8/30/2002	8/1/2012	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. Last extension approved through 8/1/2012.
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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	WG Writing Draft	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. N16 approved PINS for RV on 3/17/2010. PINS gained SB approved 4/20/2010 and sent to ANSI same day.
ANS- 8 . 10	Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement	ANS-8	4/1/2005		4/1/2010	WG Writing Draft	Approved as N16.8-1975. Revised 9/14/83. Reaffirmed 11/30/88. First extension to 12/31/95. Second extension to 12/31/98. Reaffirmed 2/4/99. (7/21/03) - Requested extension from ANSI until 12/31/2004. (8/20/03) - ANSI granted extension until 12/31/2004. Second extension granted until 12/31/07. Subcommittee reaffirmation ballot closed Sept. 16. Received verbal approval to sent reaffirmation to N16. Ballot sent to N16 10-28-04 due 12-17-04. BSR-8 sent to ANSI 10-29-04. Ballot extended to 1/15/05. Reaffirmation approved 4/1/05. PINS for revision approved and submitted to ANSI 1/31/06. Linda Farrell replaced Harry Felsher as WGC (some time before June 2007).
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- Schlessler 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 . 15	Nuclear Criticality Control of Selected Actinide Nuclides	ANS-8	7/15/2005	7/15/2015 WG Writing Draft	<p>Approved 1981. Reaffirmed 10/30/87. First extension to 12/31/94. Second extension to 12/31/97. Reaffirmed 9/12/95. First extension to 12/31/03. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted LAST extension until 9/11/2005. Per John Schlessler 5/04 report -- WG convened. Per John Schlessler e-mail - working group to develop a PINS for revision and provide draft for ANS-8 ballot by June 05. 11/1/04--John Schlessler sent PINS to WGC for revision. With not enough time to process PINS and ballot revision, it was decided to reaffirm this standard first. Reaffirmation ballot sent to N16 on 4/5/05 due 6/6/05. Ballot closed 6/6/05 w/ no comments. LB sent to SB 6/22/05 -- due 7/7/05. Reaffirmation received ANSI final approval 7/15/05. Per N. Pruvost, WG still working on PINS, but should have by end of 2005. From ANS-8 11/05 minutes: WG reviewing latest draft. PINS submitted to ANS-8 listing the nuclides explicitly addressed -- goal for draft to ANS-8 in 2006. Title changed slightly for RV. PINS submitted to ANSI 9/20/06. N. Pruvost retired as WGC in 2008. C. Rombough accepted WGC position. 8/23/10: Draft issued to ANS-8 for approval w/due date of 9/30/10. Subcommittee comments with WG for resolution.</p>
ANS- 8 . 19	Administrative Practices for Nuclear Criticality Safety	ANS-8	5/16/2005	5/16/2010 WG Writing Draft	<p>Approved 10/1/84. Reaffirmed 8/29/89. SSC approves November 1992. Extended to 12/31/96. Revised 4/17/96. 2/18/04 - requested extension from ANSI until 12/31/06. PINS for revision approved by N16 5/10/04. PINS approved by SB 6/15/04 and sent to ANSI 6/28/04. ANS-8.19-2005 rec'd ANSI approval 5/16/05. Per ANS-8 minutes 11/05: WG discussion revision to include addition of words describing the qualifications of a peer. Received email from WGC 5/19/06 regarding revision underway. PINS for RV submitted to ANSI 11/20/07.</p>

Approved 5/20/91 First extension to 12/31/98. Reaffirmed 9/20/99. 07/18/2003- Need new WG Chair. (7/21/03) - Requested extension from ANSI until 12/31/2004. (8/20/03) - ANSI granted extension until 12/31/2004. Second extension to 12/31/07 granted. Will be reviewed at 6/04 ANS meeting. 11/1/04 Ballot sent to ANS-8 for reaffirmation due 12/15/04. 12/20/04 Requested approval from SCC(McLaughlin) to send to N16. 1/13/05-Sent RF Ballot to N16 - Due Date: 3/23/05. Also sent BSR8 to ANSI. Ballot due date extended to 4/14/05. One neg vote rec'd by Bindinger. All comments sent to McLaughlin/Schlesser to resolve as no current working group chair. Ron Knief took over as chair and resolved comments. Reaffirmation approved by ANSI 9/16/2005. New PINS will be developed for revision. Per ANS-8 11/05 minutes: WG being reconstituted for revision -- meeting planned for Albuquerque in 2006. PINS issued to ANS-8 for approval 6/29/10. Comment with WG for resolution. PINS issued to N16 w/due date of 11/24/10. PINS for RV of 1991 version approved by N16 w/o comment and sent directly to SB. Comments from SB PINS review forwarded to WG on 1/19/11. 3/10/2011 PINS for the revision of ANS-8.20 were sent to ANSI.

N17

Designation	Title	Subcommittee	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 5 . 1	Decay Heat Power in Light Water Reactors	ANS-19	4/1/2005		4/1/2010	WG Writing Draft

History

1971 and 1973 drafts printed. Approved 1979. Errata sheet issued. Reaffirmed 7/17/85. Approved 8/23/94. ISO 10645 file for comparison. Requested 1st extension to 12/31/02. ANSI approved. At ballot for reaffirmation (8/01). According to SSC meeting in 11.01, this std was transferred to N17's ANS-19 around 1996. Therefore, the RF ballot under NFSC has been terminated. N17's ANS-19 is presently revising ANS-5.1. June 10-2003: Requested ext. to 12/04 from ANSI - ANSI approved extension until August 22, 2004 for this extension. Sent Dr. Brady-Rapp information regarding extension date - 6/13/03. PINS submitted to ANSI on 5/4/04 for revision of ANS-5.1-1994. BSR-8 submitted concurrently with N17 ballot on 10/5/04. ANSI approved 4/1/05. Per 6/2005 ANS-19 minutes: WGM working on "wish list" for next revision. Per 6/2005 minutes, WG to begin drafting a new revision. Notified of new chair 6/2006 -- Ian Gauld replaced Mikey Brady Raap. PINS for RV of 2005 issue submitted to ANSI 2/26/08.

ANS- 10. 5	Accommodating User Needs in Scientific and Engineering Computer Software Development	ANS-10	4/17/2006	4/17/2011	NONE	Approved 1979. Revised 8/15/86. First extension 12/31/93. Second extension to 12/31/95. Revised 6/3/94. First extension to 12/31/02. (7/21/03) - Requested extension from ANSI until 6/2/2004. (8/20/03) - ANSI granted LAST extension until 6/2/2004. Reaffirmation too late and was withdrawn-- PINS being developed by N17 to revise this standard. PINS sent to ANSI 6/28/05. Ballot sent to N17 9/26/05 due 11/30/05. Letterballot was revised with new title and resubmitted to SB on 3/22/06 - due 4/6/06. ANSI approved 4/14/06 as a new standard.
ANS- 15. 8	Quality Assurance Program Requirements for Research Reactors	ANS-15	9/14/2005	9/14/2010	WG Writing Draft	Approved as N402-1976. Reaffirmed 12/15/1988. Ref. in RG 2.5. First extension to 12/31/93. Second extension to 12/31/95. Revised 9/12/95. Per Wade Richard's 1/9/03 letter: Sean O'Kelly performed a maintenance review of this standard. Sean will make the suggested revision to ANS-15.8 and send to the chair by 1/31/03. The chair will send the revised standard to ANS 15 for balloting by 3/7/03. First extension to 12/31/03. ANSI approved. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted LAST extension until 9/11/2005. Per Tawfik's 9/24/04 e-mail: current plans are to reaffirm and begin the revision process next year. Project will need PINS for revision. 1-19-05 Per phone conversation w/Wade R., he feels revision w/b approved before 9/12/05 sunset date. He will do a new PINS ASAP as not enough time to get PINS/draft approved before 10th anny. RF approved by ANSI 9/14/05. PINS for RV submitted to ANSI 1/11/07.
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. As of 6/2010 ANS-19, draft still in development. March 2011 SCC gave approval to seek reaffirmation in order to provide sufficient time to complete the on-going revision process. Letter Ballot for the reaffirmation sent to SB on 5/18/2011. BSR9 for RF sent to ANSI on 6/7/2011.

ANS- 19. 3	Determination of Steady-State Neutron Reaction-Rate Distributions and Reactivity of Nuclear Power Reactors -- Slight change 2005 Added "Power"	ANS-19	9/16/2005		9/16/2010	Ballot @ CC	Approved as N412-1975. Revised 1983. Reaffirmed 3/3/89. First extension to 12/31/96. Revised 9/12/95. First extension to 12/31/03. (7/21/03) - Requested extension from ANSI until 12/31/2005. (8/20/03) - ANSI granted LAST extension until 9/11/2005. ANSI approved revision 9/16/05. Published 1/2006. 10/30/07: current standard being reviewed and considered for revision. Per 2007 AAR report, revision started. N17 approved PINS for RV w/o comment. PINS for RV of 2005 issue sent to ANSI 9/24/09. Per D. Cokinos 7/28/10 email: a series of ANS-19.3 updates were made through July and the draft is ready for balloting by ANS-19. ANS-19.3-201x draft issued to ANS-19 10-2-2010 w/Due Date of 10-23-2010. 4/1/2011 Ballot and draft sent to N17 committee for review and approval, due by 5/31/2011.
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. Per R. Mosteller on 7/26/2010, Bob St. Clair has taken over chair position for this standard. Per D. Cokinos e-mail update on 7/28: The final draft of ANS-19.11 was made available before the June meeting and it is now ready for a vote by ANS-19. 3/2011 SCC gave approval to seek reaffirmation in order to provide sufficient time to complete the on-going revision process. Letter Ballot #327 for reaffirmation sent to SB on 5/18/2011. BSR9 for RF sent to ANSI 6/7/2011.

Status of Standards

6/8/2011

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	Estimating Tornado, Hurricane, and Extreme Straight Line Wind Characteristics at Nuclear Facility Sites	ANS-25	Current ANSI/ANS	4/22/2011			NONE
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 @ CC
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 Dispersion of Routine Radiological 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 Subsurface Radionuclide Transport at Commercial Nuclear Power Plants	ANS-25	Current ANSI/ANS	12/23/2010		12/23/2015	NONE

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					CC Ballot Comment w/ WG
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	5/27/2010				NONE
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- 2 . 31	Standard for Estimating Extreme Precipitation at Nuclear Facility Sites (Unapproved)	ANS-25	Active Project					CC PINS Comment w/WG
ANS- 2 . 32	Guidance on the Selection and Evaluation of Remediation Methods for Subsurface Contamination (unapproved)	ANS-27	Active Project					PINS @ CC
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		WG Writing Draft
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		7/1/2010	12/31/2010	SB PINS Comments w/ WG
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		PINS @ SB
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-26	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	Properties of Radiological Emergency Response Functions and Organizations for Nuclear Facilities -- for RV of 1995 version	ANS-26	Active Project			SB PINS Comments w/ WG
ANS- 3 . 8 . 2	Properties of Functional and Physical Characteristics of Radiological Emergency Response Facilities at Nuclear Facilities -- for RV of 1995 Criteria for the Functional and Physical Characteristics of Radiological Emergency Response Facilities -- 1995	ANS-26	Active Project			SB PINS Comments w/ WG
ANS- 3 . 8 . 3	Properties of Radiological Emergency Response Plans and Implementing Procedures and Maintaining Emergency Response Capability for Nuclear Facilities -- for RV of 1995 Criteria for Radiological Emergency Response Plans and Implementing Procedures -- 1995	ANS-26	Active Project			SB PINS Comments w/ WG
ANS- 3 . 8 . 4	Criteria for Maintaining Radiological Emergency Response Capability	ANS-26	Historical			NONE
ANS- 3 . 8 . 5	Criteria for Emergency Radiological Field Monitoring, Sampling and Analysis	ANS-26	Historical			NONE
ANS- 3 . 8 . 6	Properties of the Conduct of Offsite Radiological Assessment for Emergency Response and Emergency Radiological Field Monitoring, Sampling and Analysis for Nuclear Facilities	ANS-26	Active Project			SB PINS Comments w/ WG
ANS- 3 . 8 . 7	Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities -- for RV of 1998	ANS-26	Active Project	1/30/1998	1/29/2008	SB PINS Comments w/ WG
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	12/23/2010	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			NONE
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	Current ANSI/ANS	5/19/2011			NONE
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	Historical	9/21/1999	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	Inactive Project				NONE
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	Current ANSI/ANS	11/20/2009	11/20/2014	NONE
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	Active Project			PINS Development
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 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 Sodium Reactor Nuclear Power Plants	ANS-29	Active Project				PINS @ SB
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	6/15/2009		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		WG Writing Draft
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	Historical					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	3/18/2008		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	SB PINS Comments w/ WG
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	7/1/2012	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	Current ANSI/ANS	4/22/2011		4/22/2016	NONE
ANS- 58. 15	Criteria for Severe Accident Evaluation	ANS-24	Inactive Project				NONE
ANS- 58. 16	Safety Classification and Design Criteria for Non- Reactor Nuclear Facilities -- for NFSC approval 4/2010	ANS-22	Active Project				SB PINS Comments w/ WG
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	8/1/2012	12/31/2010	NONE
ANS- 59. 4	Generic Requirements for Light Water Nuclear Power Plant Fire Protection		Historical				NONE
ANS- 59. 6	Requirements for Fire Hazard Analysis at Light Water Nuclear Power Plants		Inactive Project				NONE
ANS- 59. 7	Control Room HVAC		Inactive Project				NONE
ANS- 59. 51	Fuel Oil Systems for Safety-Related Emergency Diesel Generators	ANS-22	Current ANSI/ANS	10/4/2007		10/4/2012	NONE
ANS- 59. 52	Lubricating Oil Systems for Safety-Related Emergency Diesel Generators	ANS-22	Current ANSI/ANS	10/4/2007		10/4/2012	NONE
ANS- 59. 53	Starting Air Systems for Standby Diesel Generators	ANS-22	Inactive Project				NONE
ANS- 59. 54	Combustion Air Systems for Standby Diesel Generators	ANS-22	Inactive Project				NONE
ANS- 59. 55	Coolant System for Standby Diesel Generators	ANS-22	Inactive Project				NONE

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Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 8	Fissionable Materials Outside Reactors		Inactive Project				NONE
ANS- 8 . 1	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	ANS-8	Current ANSI/ANS	5/16/2007		5/16/2012	WG Writing Draft
ANS- 8 . 2	Proposed Standard on Computer Codes -- never named	ANS-8	Inactive Project				NONE
ANS- 8 . 3	Criticality Accident Alarm System	ANS-8	Current ANSI/ANS	6/12/2003	6/12/2011	6/12/2011	WG Writing Draft
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	11/16/2010		11/16/2015	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	2/11/2011		2/11/2016	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	WG Writing Draft
ANS- 8 . 21	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	ANS-8	Current ANSI/ANS	5/19/2011		5/19/2016	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	NONE
ANS- 8 . 24	Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations	ANS-8	Current ANSI/ANS	3/16/2007		3/16/2012	NONE
ANS- 8 . 25	Development of Nuclear Criticality Safety Related Postings	ANS-8	Active Project				SB PINS Comments w/ WG
ANS- 8 . 26	Criticality Safety Engineer Training and Qualification Program	ANS-8	Current ANSI/ANS	6/20/2007		6/20/2012	NONE
ANS- 8 . 27	Burnup Credit for LWR Fuel	ANS-8	Current ANSI/ANS	8/14/2008		8/14/2013	NONE
ANS- 8 . 28	Administrative Practices for the Use of Non-Destructive Assay Measurements for Nuclear Criticality Safety	ANS-8	Active Project				WG Writing Draft
ANS- 8 . 29	Nuclear Criticality Safety in Fuel Reprocessing Facilities		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 NUPPSO		Inactive Project				NONE
ANS- 5 . 1	Decay Heat Power in Light Water Reactors	ANS-19	Current ANSI/ANS	4/1/2005		4/1/2010	WG Writing Draft
ANS- 5 . 3	Fission Product Release to the Coolant of Light Water Reactors from Failed or Defective Fuel		Inactive Project				NONE
ANS- 5 . 6	Radiation Protection Design Criteria		Inactive Project				NONE
ANS- 5 . 6 . 1	Criteria for Accident Shielding		Inactive Project				NONE
ANS- 5 . 7 . 1	Post Accident Sampling		Inactive Project				NONE
ANS- 5 . 8	Delayed Neutron Data		Inactive Project				NONE
ANS- 6	Radiation Protection and Shielding	ANS-6	Inactive Project				NONE
ANS- 6 . 1 . 1	Neutron and Gamma-Ray Fluence-To-Dose Factors	ANS-6	Active Project				PINS Development
ANS- 6 . 1 . 2	Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants	ANS-6	Current ANSI/ANS	2/23/2009		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	Criteria for Post Accident Radiological Control	ANS-6	Inactive Project			NONE
ANS- 6 . 9	Designing for Post-Accident Radiological Conditions		Inactive Project			NONE
ANS- 7 . 4 . 3	Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations		Historical			NONE
ANS- 10	Mathematics and Computation		Inactive Project			NONE
ANS- 10. 2	Portability of Scientific and Engineering Software	ANS-10	Current ANSI/ANS	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	Current ANSI/ANS	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	10/27/2009	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			NONE
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	Active Project	5/3/2000	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	Ballot @ CC
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	Historical	5/3/2000	5/3/2010	NONE	
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	1/13/2011	11/29/2010	NONE	
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	2/24/2009	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

Designation	Title	Subcommittee	Status	ANSI Approval Date	Extension Date	Action Needed By	Project Activity
ANS- 58. 21	External-Events PRA Methodology	RISC	Historical	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	Historical	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

STANDARDS SALES REPORT
October 16, 2010 – May 31, 2011

Designation & Title of Standard	# Of Paper/Electronic Copies Sold	Total Price
ANS-1-2000;R2007 , Conduct of Critical Experiments	0/1	31.00
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