



Standards Board (SB)

June 11, 2019

Hyatt Regency Minneapolis

Members Present:

Steven Arndt (Chair), U.S. Nuclear Regulatory Commission
Donald Eggett (Vice Chair), Individual
John Fabian (Secretary Pro Temp), American Nuclear Society
*Patricia Schroeder (Secretary), American Nuclear Society
Robert Bari, Brookhaven National Laboratory
*Robert Budnitz, Lawrence Berkeley National Laboratory
Gene Carpenter, U.S. Department of Energy
George Flanagan, Oak Ridge National Laboratory
David Hillyer, Individual
N. Prasad Kadambi, Individual
*Mark Linn, Oak Ridge National Laboratory
John Nakoski, U.S. Nuclear Regulatory Commission
*James O'Brien, U.S. Department of Energy
*Andrew Smetana, Savannah River National Laboratory
Andrew Sowder, Electric Power Research Institute
*Steven Stamm, Individual
*Edward Wallace, Individual
*Larry Wetzel, BWXT, Inc.

**Participated by teleconference for at least part of the time*

Guests:

*James August, Southern Company
Brett Rampal, Clean Air Task Force
John Kelly, ANS President

Members Absent:

Amir Afzali, Southern Company
Carl Mazzola, Project Enhancement Corporation
William Turkowski, Westinghouse Electric Company, LLC

1. Welcome and Introductions

Standards Board Chair Steven Arndt called the meeting to order and introductions were made. A quorum was established.

2. Approval of Agenda

The agenda was approved as presented with the flexibility to move discussion items as needed to accommodate schedules.

3. Standards Board Chair Report

- Report from ANS President's Special Session



Steven Arndt reported on the ANS President's Special Session held on Sunday which focused on ongoing efforts associated with realigning ANS's business structure including meetings, divisions, local sections, publications, etc. A proposal has been written which will encompass well beyond financial issues. The Board of Directors (BOD) is expected to discuss the proposal at length at their meetings on Wednesday and Thursday. The BOD will look at the overall plan and specific actions to be taken in the next six months. Arndt believes the Standards Committee structure will be looked at very closely; however, he would be surprised if there was much change to the Standards Board itself. If the professional division (PD) structure changes, our interface with them will need to be revisited. Arndt explained that a small team was commissioned at the November 2018 BOD meeting to take a look at all activities of ANS and offer recommendations to improve efficiency. The small committee was led by Robert Coward. Arndt expects the proposal to be approved in concept. He will forward information he is privy to after the BOD makes any decisions.

ACTION ITEM 6/2019-01: Steven Arndt to provide the Standards Board more information about the proposal for realigning ANS's business structure when approved by the BOD.
DUE DATE: July 15, 2019

- **Report to the Board of Directors**
Arndt noted that he made a presentation to the BOD at the November 2018 meeting. For this annual meeting, he provided a written, informational report – see [Attachment 1](#). One of the outcroppings of the November 2018 BOD meeting was the formation of a special committee on advanced reactor policy created by ANS President John Kelly. Arndt, Robert Budnitz, and George Flanagan are members of the special committee. The special committee has been directed to include a recommendation to the U.S. Department of Energy (DOE), U.S. Nuclear Regulatory Commission (NRC), and Congress on the use and benefit of standards. This indicates the support for the standards program, and Arndt feels this is encouraging. The report should come out before the 2019 winter meeting.
- **Recent Appeals Requested**
Arndt recognized that two appeals have recently been submitted. The appeals process is long but working. Appeals are not common. The previous appeal had been filed over 15 years ago. The status of the two current appeals is provided below:
 - **ANS-3.5-201x, “Nuclear Power Plant Simulators for Use in Operator Training and Examination”**
The appeal filed is both procedural and technical. A special committee was setup to address the technical appeal. An evaluation was prepared for Arndt's consideration. The appeal for the procedural issue is close to being completed. Arndt stated that he was not surprised that an appeal was filed on ANS-3.5 as there are a lot of emotions involved.
 - **ANS-54.1-201x, “Nuclear Safety Criteria and Design Process for Sodium Fast Reactor Nuclear Power Plants”**
The appeal for ANS-54.1 is technical. The appeals committee is currently being formed.
- **Recognition of Steven Stamm's Presidential Citation**
Arndt recognized that Steven Stamm was granted the Presidential Citation for more than 40 years of distinguished and exemplary service to the nuclear power industry and the ANS. In particular, he is recognized for his engaged longevity and outstanding leadership on the ANS Standards Board including its reorganization, its Strategic Plan and Training Program developments, and modernizing the Board's governance procedures.



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- General Chair Comments
Arndt acknowledged a number of inquiries received on standards. By and large, he believes that the organization is working well. He would like to see better participation on Standards Board ballots but feels the group is doing an outstanding job working together. Arndt added that we need to be proactive; however, if we can't do something, we need to recognize it and cut our losses.

4. Standards Board Vice Chair Report

See [Attachment 2](#) for the full vice chair's report.

- Standards Service Award Selection Committee Report
Donald Eggett reported that the selection committee included Robert Budnitz, Gene Carpenter, Steven Stamm, and Larry Wetzel. Because of the tight evaluation, they recommended two candidates—Ian Wall and James Florence. Wall has been involved in probabilistic risk assessment (PRA) for numerous decades and has made an impact on standards. Florence has chaired ANS-3.5, “Nuclear Power Plant Simulators for Use in Operator Training and Examination,” for 10+ years and has been a working group member even longer. Much effort went into developing and bringing consensus on the proposed revision. Budnitz added that there were a number of other nominations that were also worthy. The selection was not an easy decision.
- Concurrence of 2019 Nominee
The following motion was made:

MOTION:

To approve James Florence and Ian Wall as the recipients for the 2019 Standards Service Award.

The motion was unanimously approved.

ACTION ITEM 6/2019-02: Steven Arndt to notify the award recipients by phone (if possible) followed by formal letter. DUE DATE: July 1, 2019
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- Appointment of 2020 Selection Committee
In accordance with the policy on selection of the Standards Service Award recipients, Donald Eggett, as Standards Board vice chair, will lead the 2020 selection committee. Offers from Robert Budnitz, Gene Carpenter, Steven Stamm, and Larry Wetzel to participate on the selection committee were accepted.

ACTION ITEM 6/2019-03: Donald Eggett to lead the 2020 Standards Service Award Selection committee with support from Robert Budnitz, Gene Carpenter, Steven Stamm, and Larry Wetzel. DUE DATE: May 1, 2020
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- ANS Glossary Update April 2019
Eggett recognized the recent glossary update and the importance that working groups refer to the glossary when developing standards. The importance of terminology was highlighted at yesterday's Risk-informed, Performance-based Principles and Policy Committee (RP3C) meeting. Prasad Kadambi agreed and added that it is an ongoing process requiring communication. Further, it is important to standardize definitions between standards developers. Eggett recognized Steven Stamm's lead on the glossary update.



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Members questioned if glossaries from other organizations had been benchmarked. Stamm clarified that the ANS Standards Glossary is a compilation of definitions in published ANS standards and recognizes what standard(s) use the definition. Over the years, some terms have been defined differently. In these occurrences, the glossary indicates a preferred definition. The glossary is a living document requiring an update every few years to incorporate new terms in recently published ANS standards.

- General Vice Chair Comments

Eggett questioned industry feedback on standards priority from the Nuclear Energy Institute (NEI). Arndt believes that NEI's survey was completed, but he hasn't seen a formal report. It is Arndt's understanding that NEI's feedback is similar to the feedback ANS received at the Advanced Reactor Standards Needs Workshop held in May 2018. Basically, standards need to be flexible, or performance based, and that standards aren't entirely necessary for advanced reactors to be developed.

Members recognized that Russell Bell retired from NEI and a new NEI liaison has not been appointed to the Standards Board. Arndt will contact Mike Tschiltz at NEI to inquiry about a new liaison as well as feedback on their standards priority survey.

ACTION ITEM 6/2019-04: Steven Arndt to contact Mike Tschiltz at NEI to inquiry about a new liaison as well as on the availability of their standards priority survey feedback.

DUE DATE: September 1, 2019

Eggett recognized Larry Wetzel for providing a standards presentation at the student conference last April. Wetzel stated that the presentation had about 20 students in attendance. He was pleasantly surprised with the number of students interested in getting involved. Wetzel directed students to the ANS website and the volunteer form.

Stamm would like to develop a write up for local sections to distribute to their members related to specific standards in need of support. He believes a lot of local section members are not ANS members and represent a new audience. Stamm offered to prepare a write up and work with Pat Schroeder for its distribution.

ACTION ITEM 6/2019-05: Steven Stamm to draft a write up to solicit support from local section members and work with Pat Schroeder on its distribution.

DUE DATE: August 1, 2019

5. Secretary/Sales Report

Pat Schroeder summarized her secretary/sales report provided with the meeting materials – see [Attachment 3](#). Included in the report is an update on the migration of the ANS Standards Workspace into ANS Collaborate, the Standards Volunteer Database, third-party royalties, the associate member video testimonials, and other staff projects.

- Scheduling of Winter (November) Meetings

To comply with the BOD's direction to reduce staff travel expenses by 10%, a revised meeting schedule for the RP3C and consensus committees was proposed—see [Attachment 4](#) for the



proposed schedule. Steven Arndt asked Schroeder to distribute the proposal to the RP3C and consensus committee chairs for their concurrence.

ACTION ITEM 6/2019-06: Pat Schroeder to distribute the proposed schedule for the RP3C and consensus committee upcoming meetings to the chairs for their concurrence.
DUE DATE: July 1, 2019

6. ANS President (Leadership) Address

Before providing a report to Standards Board members, John Kelly took the time to acknowledge Steven Stamm's presidential citation. Kelly recognized that some budgetary decisions made at the June 2018 meeting caused a lot of concern. The BOD learned that they should have had better communication with the divisions. Kelly recognized that budget cuts included staffing at headquarters. Even with the cuts made last year, ANS is still operating at a deficit. Kelly stated that Robert Coward was asked to head up a committee to evaluate all activities within ANS and provide recommendations on how to improve ANS's finances. This small committee is looking at changing ANS's membership structure, meeting structure, and topical meetings among other items. The recommendations were to be presented to the BOD at the June meeting for endorsement on the direction. Arndt reiterated that he doesn't expect a lot of changes on the Standards Board as we need to comply with American National Standards Institute requirements, but changes will likely affect this committee.

Kelly explained that the special committee on advanced reactor policy hit on something that he has been supporting for many years, that being we need to get the Department of Commerce involved. It shouldn't be just an NRC or DOE activity. Kelly is looking for the special committee to develop recommendations that can be assigned to specific committees for implementation.

Steven Stamm questioned whether there has had been any consideration of mergers and acquisitions with respect with other organizations or societies. Kelly said that this has crossed his mind, but he hasn't verbalized it with any group. He stated that we can't fight "wind" and "solar." He feels we need to integrate all clean energy. Stamm stated that *Nuclear News* lists a lot of meetings on related topics. He sees this as a hindrance to attendance of ANS meetings. It was explained that many of these are "for profit" organizations which we have no control over.

7. CC Balance of Interest Certification

- Certification of 2019 Balance of Interest
Steven Arndt directed members to the balance of interest reports—see [Attachment 5](#). Steven Stamm recognized that many of the committees have growing participation in the "Individual" category. As more members retire, we'll need to limit members in this category. He questioned whether those retired should be included with those that are self-employed in the "Individual" category. Pat Schroeder clarified that ANSI restricts all categories to no more than 1/3rd of the committee's membership but that there is no limitation on the number of categories allowed. We can create a new category just for independent consultants and redefine the "Individual" category for retired members. The balance of interest categories are defined in Annex A of the Standards Committee Rules and Procedures. Changes to Annex A would need to be approved by the Standards Board and submitted to ANSI for their approval. Several members offered to review the balance of interest definitions and propose a revision of the "Individual" category for Standards Board consideration.



ACTION ITEM 6/2019-07: Donald Eggett (lead), George Flanagan, Prasad Kadambi, and Mark Linn to evaluate the current balance of interest definitions (Annex A) and propose a revision of the “Individual” category.

DUE DATE: September 1, 2019

The following motion was made:

MOTION:

To approve all balance of interest reports as presented.

The motion was unanimously approved.

- Approval for subsequent certification by e-ballot

The following motion was made:

MOTION:

To approve subsequent balance of interest reports annually (June) via e-ballot.

The motion was unanimously approved.

8. Standards Committee Strategic Plan Report/SMART Matrix Progress

- Findings from Comparison of ANS and the Standards Committee Strategic Plans
Steven Stamm performed a review of the ANS Standards Committee Strategic Plan against the new ANS Strategic Plan for consistency. His evaluation confirmed that the two plans align well and that no changes are needed to the Standards Committee Strategic Plan. The findings were included in the Standards Board report to the BOD. Arndt added that he received feedback from the BOD that they were appreciative of the Standards Board’s proactive review.
- Possible Considerations for Standards Committee Strategic Plan
 - Should the ANS SC increase its participation in the ISO program considering both the benefits and the negatives of this program and our participation?
This subject was not discussed.
 - Should the ANS SB encourage SC leaders to consider nomination of SC members for existing ANS awards other than the Standards Service Award?
This subject was not discussed.
- Progress on Goals & Objectives--SMART Matrix
Stamm reviewed the SMART Matrix—[Attachment 6](#). Prasad Kadambi stated that the RP3C reviewed the goals and objectives for RP3C. Progress is being made on all. David Hillyer added that one of the FWDCC members with RIPB experience reviewed FWDCC standards. This member is developing a presentation to explain the RIPB process to FWDCC members. The FWDCC will reconsider incorporation of RIPB methods in FWDCC standards after the presentation. Prasad Kadambi suggested that FWDCC members read the RIPB article in the June 2019 issue of *Nuclear News* written by RP3C members.



ACTION ITEM 6/2019-08: David Hillyer to provide FWDCC members the RIPB article in the June 2019 issue of *Nuclear News* for reference.
DUE DATE: July 1, 2019

Eggett asked for the RIPB article in *Nuclear News* to be sent to working group chairs for use as a reference.

ACTION ITEM 6/2019-09: Pat Schroeder to send working group chairs the RIPB article in the June 2019 issue of *Nuclear News* for their reference.
DUE DATE: July 1, 2019

Arndt added regarding Goal 3 that ANS is looking to get ANS Local Sections more integrated with ANS headquarters. He expected that Local Sections members would be added to the membership database and, in the future, could be an additional 3,000 searchable individuals for the standards volunteer database.

Under the high-priority standards discussion, George Flanagan asked that ANS-20.1, "Nuclear Safety Criteria and Design Process for Fluoride Salt-Cooled High-Temperature Reactor Nuclear Power Plants," be removed since the project is on indefinite hold. Stamm asked members to email him any updates to the SMART Matrix.

ACTION ITEM 6/2019-10: Standards Board members to send Steven Stamm updates to the SMART Matrix.
DUE DATE: July 1, 2019 (and ongoing)

- 2018 Consensus Committee Combined Performance Evaluation
Members reviewed [Attachment 7](#), the 2018 Consensus Committee Combined Performance Evaluation Report. The report compares last year's (2018) performance with the previous year (2017). Stamm suggested that consensus committee chairs make a phone call to individuals with poor participation to find out if they remain interested or may have a valid reason for poor participation like a medical issue. Arndt recognized that participation issues are difficult to deal with as a volunteer committee. The matrix shouldn't be used to beat people up but to identify what can be improved. Members agreed that a one-on-one call by the consensus committee chair is appropriate to invigorate activity.

Stamm expressed some concern that he believes comment resolution time has been delayed with continued attempts to resolve negatives. He felt that standards should move forward with negatives after a reasonable attempt at resolution. Members agreed.

9. Current Issues

- Addressing Ballot Comments on Change of Policy on Guidance Standards to Guidance Documents ([Attachment 8](#)) ([Access Ballot HERE](#)) (12/18 Approved = 66.7%)

Steven Arndt stated that he didn't expect to have so many comments on the change to the guidance standard policy. The revision changes the verbiage of the policy to recognize development of additional guidance documents for industry use. The reason for the change is to accommodate an interest of the JCNRM to develop a guidance document. The policy change approves the concept but not the initiation of this guidance document.



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Robert Budnitz explained why the JCNRM feels it is appropriate to develop a guidance document instead of a standard. He stated that new methods may not be ready for a standard but would benefit from a guidance document. The JCNRM has formed a working group and has had four preliminary meetings to discuss a guidance document on the use of PRA in risk-informed cyber and physical security. The JCNRM believes that they provide a neutral forum and is the best way to support this industry need. With experience, the guidance document could be converted to a standard. John Nakoski feels this is an important development for ANS because it will allow cross industry to discuss and develop positions on a potential standard. This proposed policy change allows for the Standards Committee to be flexible and meet industry needs as they build best practices.

Steven Stamm expressed grave concerns. He stated that the Standards Committee is sanctioned to develop standards. Developing non-standards documents is outside of our charter. He believes this can be very confusing. Presently he has not heard anything that would prevent the document to be developed as a guidance standard. He doesn't think we should be changing ANS's policy for this one document. Budnitz believes that ASME is flexible on the terminology used for this document. Stamm feels that a guidance document gets us into a convoluted situation. Additionally, he doesn't understand why JCNRM should develop this guidance document when we have a standard already in development on this subject.

Arndt proposed to keep the terminology of "guidance standard" in the policy but to remove the requirement for the guidance standard to be for the implementation of criteria in an American National Standard. Stamm confirmed that he would be acceptable to this modification. Wetzel was also acceptable as long as the document qualifies as a standard. While this change resolved Stamm's and Wetzel's objection, others were not in agreement. Several members questioned how a document can be called a standard without any requirements and what value it would be to the industry.

A suggestion was made, and the majority of members felt that an objective statement added to the policy to clarify that the document would be developed in support of present or potential standards would help. Arndt agreed that an objective statement would be good to capture the discussion. Budnitz offered to draft a couple of sentences for Arndt's use in revising the policy.

ACTION ITEM 6/2019-11: Robert Budnitz to prepare an objective statement for the background on the revision of the guidance standard policy and send to Steven Arndt for consideration.
DUE DATE: July 1, 2019.

ACTION ITEM 6/2019-12: Steven Arndt to revise the guidance standard policy to be presented to the Standards Board for approval.
DUE DATE: August 1, 2019

- **Need for Consideration of Climate Change in ANS Standards**
(e.g., areas to be considered include selection of design ambient temperature, flood levels, precipitation and maximum wind speeds that need to be considered for normal and off-normal conditions, and how these need to be considered in the design of structures, systems, and components.)

Arndt gave members a few minutes to read ANSI's email message regarding International Organization of Standardization (ISO) standards considering climate change ([Attachment 9](#)) prior to discussion. The question is should climate change be considered in ANS standards. George Flanagan added some insight from his participation in ISO. He believes that ISO is political. Prasad Kadambi stated that if we want ANS standards to be used as the basis for ISO standards, it would be beneficial to recognize climate change.



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[ANS Position Statement 44, Nuclear Energy's Role in Climate Change Policy](#) was reviewed. Stamm didn't think climate change can be ignored, but we are not at the point that we can accurately quantify today. We need to develop guidance on what to consider from a climate standpoint in standards.

Arndt summarized the sentiment that Standards Board members are good with transferring this responsibility to consensus committees. Working group members should be pointed to the ANS Position Statement.

ACTION ITEM 6/2019-13: Pat Schroeder to disseminate [ANS Position Statement 44, Nuclear Energy's Role in Climate Change Policy](#) to working groups for their reference as applicable in developing ANS standards.
DUE DATE: July 1, 2019

10. Professional Division (PD)/Standards Committee (SC) Liaisons Program

The list of PD/SC Liaisons is available as [Attachment 10](#).

- Standards Board Chair Presentation to the Professional Divisions Committee
Steven Arndt made a presentation to the Professional Division Committee at their workshop on Saturday. Arndt stated that it is important to keep reminding divisions of this liaison relationship as personnel changes frequently. He encouraged consensus committee chairs to reach out to their division representatives.

Arndt added that if consensus committee chairs have the opportunity to attend certain meetings that they should promote participation in ANS standards. David Hillyer informed members of an outreach planned for the upcoming Young Member Congress. Prasad Kadambi informed the Standards Board of a proposal to host a RIPB panel at the 2019 ANS Winter Meeting (November) based on the RIPB article just published in *Nuclear News*. The panel will be used as an opportunity to encourage participation in standards.

11. Associate Member Report

- Updated Report
As requested, the Associate Member Report was revised. The combined report was separated into current associate members, upgraded associate members, and dropped/lost associate members. The reports are available for review as [Attachment 11](#).
- Status of Associate Member Video Testimonials
Associate member candidates were selected for the video testimonials based on confirmed participation. The videos will be created via webinar. With concurrence of consensus committee chairs, the candidates were sent a brief survey to solicit their feedback. No responses have yet been received, but the survey had only been issued two weeks prior. Reminders will be sent. Additional associate members can be contacted if needed.

12. Review of Open Action Item Report

- Report on Open Action Items



Open action items were reviewed. A complete status report of open action items is provided at the end of these minutes. The following new action item was assigned during the discussion of ACTION ITEM 6/2018-09:

ACTION ITEM 6/2019-14: Pat Schroeder to provide David Hillyer Policy A3, Responsibilities of ANS Standards Committee Liaison Personnel, for reference to aid in finding a potential INPO liaison for the Standards Board (see ACTION ITEM 6/2018-09).
DUE DATE: July 1, 2019

- Concurrence to Close Report of Completed Action Items
Members were asked to take a few minutes to review the report of completed action items—[Attachment 12](#). The following motion was made:

MOTION:

To close the list of completed action items.

The motion was unanimously approved.

13. Risk-informed, Performance-based Principles and Policy Committee (RP3C) Report

RP3C Chair Prasad Kadambi reported that the RP3C held a good meeting yesterday. A summary of what was covered at the RP3C meeting was provided via presentation--see [Attachment 13](#). Kadambi acknowledged James O'Brien's effort to develop the RIPB Guidance Document. He would like to get Standards Board's concurrence to issue the guidance document for trial use. Ed Wallace has the lead for the training package. The training package will be a combination of several elements including the guidance document and other items he received permission to use from the License Modernization Project (LMP). Once prepared, the package will be sent to RP3C for their input. It is important that the package is directed to the right audience. LMP guidance documents should be issued around the September timeframe. All consensus committees will need to react to this.

- RIPB Article Published in June 2019 *Nuclear News*
(Article posted to Standards Resources Page under Articles [HERE](#))
(*Nuclear News* Issues available [HERE](#) – member login required)
When questioned, Steven Arndt thought it was premature to know the outcome of the *Nuclear News* article. Future articles in *Nuclear News* should be considered to provide updates on what ANS has done and is doing to integrate RIPB concepts in ANS standards. As an alternative, a paper can be presented at an ANS meeting. George Flanagan suggested that concrete positive examples be provided to prove success. Wallace stated that tabletop applications of the LMP process should be published in the September/October timeframe with testimonials.
- [RIPB Guidance Document](#) Status ([Access Ballot HERE](#))
(11/18 Approved = 61.1%)
With members in agreement, Pat Schroeder was directed to issue the RIPB Guidance Document for trial use.

ACTION ITEM 6/2019-15: Pat Schroeder to issue the RIPB Guidance Document for trial use.
DUE DATE: July 1, 2019

Kadambi added that a uniform approach will be applied to incorporating trial-use findings into the guidance document.



- Consensus Committees in Collaboration with RP3C (Action Item 11/2018-14)
[Attachment 14](#) provides the status of standards recommended by RP3C's evaluation to incorporate RIPB methods. Kadambi would like the consensus committee chair reports to include a line item to address the status of incorporating RIPB methods into identified standards.
- Progress Improvement
Progress on several key projects as discussed above was recognized.

14. Consensus Committee Chair Reports

Each report shall address the following areas:

- CC performance improvement activities
 - Plan for any standards that are over 5 years old
 - Status of high priority standards efforts
 - Top 10 standards progress & 11-20 standards evaluation ([Attachment 15](#))
 - Personnel needs/actions taken
 - Identification and progress of new standards, including status of project plans
 - Plan for inquiries over 2 months old
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A. Environmental and Siting Consensus Committee (ESCC)

In Carl Mazzola's absence, his written report was skimmed. See [Attachment 16](#) for details.

B. Fuel, Waste, and Decommissioning Consensus Committee (FWDCC)

See [Attachment 17](#) for the chair's full report.

David Hillyer explained that his top priority right now is recruiting working group chairs. The committee will be looking at prioritizing standards projects to make good use of scarce volunteer resources. He has prepared four Project Initiation Notification System (PINS) forms and will be developing two more. Two of the PINS are for fuel-based standards with the balance geared towards decommissioning. John Nakoski recommended reaching out to foreign standards developers that are going through decommissioning. Hillyer agreed, and stated that he met the head of the Japanese standards organization, and they are interested in participating in our standards program. He will be reaching out with an invitation. Gene Carpenter added that he'd welcome international participation on the LLWRCC. Lastly, Hillyer explained that he was traveling a lot internationally and found it difficult to find the time to work on standards. With his recent retirement, he'll have the time to devote to his chair role.

C. Joint Committee on Nuclear Risk Management (JCNRM)

See [Attachment 18](#) for the chair's full report.

Robert Budnitz reported that ANS has a good working relationship with ASME on the joint committee. The JCNRM is involved in a significant revision of the main standard. The revision should be balloted in the next year. Several other standards are in development. Many have been issued for trial use and are working on incorporating comments for approval as an ANSI standard. The JCNRM recently launched a working group on multi-unit PRA, and the PINS has already been approved. JCNRM's interest in writing a guidance document on risk-informing both cyber and physical security was discussed earlier. This group has many young members with a great infusion of energy. They do have an issue with a number of members not having financial support to cover travel expenses. Budnitz acknowledged that the current grant is running out, and they are in the process of negotiating additional funding with NRC. ASME arranges the meetings; ANS is responsible for publication of JCNRM standards.

D. Large Light Water Reactor Consensus Committee (LLWRCC)



See [Attachment 19](#) for the chair's full report.

Gene Carpenter acknowledged that the ANS-3.15 Working Group developing the cybersecurity standard continued to move slowly. He is hoping that the group's new chair will reinvigorate the project. If not, he will address. He also recognized that the ANS-60.1 Working Group on export control is struggling. Lastly, Carpenter expected that the procedural appeal on the revision of ANSI/ANS-3.5-2009, "Nuclear Power Plant Simulators for Use in Operator Training and Examination," should be concluded in the next few weeks.

E. Nonreactor Nuclear Facilities Consensus Committee (NRNFCC)

See [Attachment 20](#) for the chair's full report.

James O'Brien summarized his report. The NRNFCC has two active projects that have been in development for several years. One has just been issued for ballot, and the other will be issued for ballot shortly. Lastly, he confirmed that the appropriate maintenance action was being considered on ANSI/ANS-58.16-2014, "Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities."

F. Nuclear Criticality Safety Consensus Committee (NCSCC)

See [Attachment 21](#) for the chair's full report.

Larry Wetzel reported that the NCSCC has been very active. PINS are being developed for revisions to three standards. They have seven standards in development and two standards currently at ballot. Only one standard is over five years old and considered delinquent, but the revision is being balloted. Wetzel stated that he is looking to add new members to the NCSCC to replace members that will be retiring soon.

G. Research and Advanced Reactors Consensus Committee (RARCC)

See [Attachment 22](#) for the chair's full report.

George Flanagan reported that there is a PINS in development for a revision of ANSI/ANS-53.1-2011 (R2016), "Nuclear Safety Design Process for Modular Helium-Cooled Reactor Plants." This revision will take into consideration the LMP. The RARCC has six standards in development. The draft of proposed new standard ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs," has been completed and is being balloted by the working group. The ANS-30.1 Working Group has had challenges coming to agreement on whether the standard hit the mark and that it's worthy of being a standard. Lastly, Flanagan reported that little to no progress has been made on proposed standard ANS-30.2, "Structures, Systems, and Component Classification for Nuclear Power Plants." The proposed standard is directly related to the LMP and will benefit from release of the LMP guidance expected this fall.

H. Safety and Radiological Analyses Consensus Committee (SRACC)

See [Attachment 23](#) for the chair's full report.

Andrew Smetana highlighted activities of the SRACC. He believes that a decision will be made to proceed with a reaffirmation of ANSI/ANS-5.4-2011, "Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel." A decision was made some time ago to allow ANSI/ANS-10.2-2000 (R2009), "Portability of Scientific and Engineering Software," to be administratively withdrawn. A revision will be considered when technology stabilizes. Steven Stamm asked if the working group could focus the standard on processes.

ACTION ITEM 6/2019-16: Andrew Smetana to reach out to the ANS-10.2 Working Group Chair to ask the working group to consider development of a revision focusing on processes.
DUE DATE: September 1, 2019

Smetana continued his report with recognizing a number of staffing needs on SRACC working groups and added that he is also working on leadership succession planning.



David Hillyer thought it would be beneficial to have a radiological safety expert on the FWDCC. He stated that he'd reach out to Smetana for a recommendation.

ACTION ITEM 6/2019-17: David Hillyer to contact Andrew Smetana for a recommendation of a radiological safety expert to join the FWDCC.
DUE DATE: September 1, 2019

15. Other Committee Reports (from members who have information to report)

- Standards Board Task Groups (TG) (TG List/Scopes – Attachment 24)
 - Policy Task Group (Chair: Steven Arndt)
Arndt explained that the group will have something to work on once the president's special committee on advanced reactor policy issues its recommendation.
 - External Communications Task Group (Chair: Open)
No report was provided. Arndt recognized the need for a chair to be appointed.
 - Internal Communications Task Group (Chair: William Turkowski)
Turkowski was unable to participate due to a work commitment. The Professional Division Liaison program under the Internal Communications Task Group was discussed elsewhere.
- Liaison reports (Full Liaison List – Attachment 25)
Liaisons were recognized.

External Liaisons to the Standards Board

- ANSI & ISO/TC 85/SC 6: Prasad Kadambi
No report was provided. Kadambi was not available at the time discussed.
- ASCE: Carl Mazzola
No report was provided. Mazzola was not able to participate due to a conflict.
- EPRI: Andrew Sowder
Andrew Sowder did not provide a formal report; however, he recognized that EPRI was active on PRA standards under the JCNRM. He stated that it is challenging for EPRI to support all adequately. Standards Board members should reach out to him if there are any problems engaging with EPRI.
- IEEE/NPEC: Donald Spellman (Standards Board liaison to NPEC)/Richard Wood (NPEC liaison to the Standards Board)
No report was provided. Arndt recognized a number of standards developed by IEEE/NPEC similar to ANS standards. Better interface is needed. Arndt stated that he'd reach out to Spellman and Wood in hopes of stimulating better communication.

ACTION ITEM 6/2019-18: Steven Arndt to reach out to Donald Spellman and Richard Wood to stimulate better communication between ANS and IEEE/NPEC.
DUE DATE: September 1, 2019

- INPO: Open
- JCNRM/SCoRA: Stanley Levinson



American Nuclear Society

Robert Budnitz stated that there's not much more to report. SCoRA and the RP3C have complimentary roles and are working together. SCoRA has RP3C members and vice a versa.

- NCRP: Open
- NEI: Open
- NFPA: Open

George Flanagan believes that any ANS standards on additive manufacturing would overlap with ASME standards needing coordination. Additionally he recognized IAEA's membership-based project—International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)—and their activity on micro and movable reactors. These may be areas that ANS should consider for new standards.

ACTION ITEM 6/2019-19: George Flanagan and Gene Carpenter to discuss the implications of the INPRO Report and determine if there is a need for ANS standards action on micro and/or movable reactors.

DUE DATE: November 1, 2019

16. Other Business

No other business was discussed.

17. Review of Action Items from this Meeting

New action items assigned at the meeting were reviewed and confirmed.

18. Future Meetings

- 2019 ANS Winter Meeting at Marriott Wardman Park from November 17-21
The Standards Board meeting is anticipated on Tuesday, November 19, 2019.
- 2020 ANS Annual Meeting at Arizona Grand Resort from June 7-11
The Standards Board meeting is anticipated on Tuesday, June 9, 2020.

19. Adjournment

With no further business, the meeting was adjourned.

Standards Board Action Item Report from 6/11/19 Meeting

Action Item	Description	Responsibility	Status/Comments /Reassignments
6/2019-01	Steven Arndt to provide the Standards Board more information about the proposal for realigning ANS's business structure when approved by the BOD. DUE DATE: July 15, 2019	Arndt	OPEN
6/2019-02	Steven Arndt to notify the award recipients by phone (if possible) followed by formal letter. DUE DATE: July 1, 2019	Arndt	OPEN
6/2019-03	Donald Eggett to lead the 2020 Standards Service Award Selection committee with support from Robert Budnitz, Gene Carpenter, Steven Stamm, and Larry Wetzel. DUE DATE: May 1, 2020	Eggett, Budnitz, Carpenter, Stamm, Wetzel	OPEN
6/2019-04	Steven Arndt to contact Mike Tschiltz at NEI to inquiry about a new liaison as well as on the availability of their standards priority survey feedback. DUE DATE: September 1, 2019	Arndt	OPEN
6/2019-05	Steven Stamm to draft a write up to solicit support from local section members and work with Pat Schroeder on its distribution. DUE DATE: August 1, 2019	Stamm, Schroeder	OPEN
6/2019-06	Pat Schroeder to distribute the proposed schedule for the RP3C and consensus committee upcoming meetings to the chairs for their concurrence. DUE DATE: July 1, 2019	Schroeder	OPEN
6/2019-07	Donald Eggett (lead), George Flanagan, Prasad Kadambi, and Mark Linn to evaluate the current balance of interest definitions (Annex A) and propose a revision of the "Individual" category. DUE DATE: September 1, 2019	Eggett, Flanagan, Kadambi, Linn	OPEN
6/2019-08	David Hillyer to provide FWDCC members the RIPB article in the June 2019 issue of Nuclear News for reference. DUE DATE: July 1, 2019	Hillyer	OPEN
6/2019-09	Pat Schroeder to send working group chairs the RIPB article in the June 2019 issue of Nuclear News for their reference. DUE DATE: July 1, 2019	Schroeder	OPEN
6/2019-10	Standards Board members to send Steven Stamm updates to the SMART Matrix. DUE DATE: July 1, 2019 (and ongoing)	Standards Board members	OPEN
6/2019-11	Robert Budnitz to prepare an objective statement for the background on the revision of the guidance standard policy and send to Steven Arndt for consideration. DUE DATE: July 1, 2019	Budnitz	OPEN
6/2019-12	Steven Arndt to revise the guidance standard policy to be presented to the Standards Board for approval. DUE DATE: August 1, 2019	Arndt	OPEN

Standards Board Action Item Report from 6/11/19 Meeting

Action Item	Description	Responsibility	Status/Comments /Reassignments
6/2019-13	Pat Schroeder to disseminate ANS Position Statement 44, Nuclear Energy's Role in Climate Change Policy , to working groups for their reference as applicable in developing ANS standards. DUE DATE: July 1, 2019	Schroeder	OPEN
6/2019-14	Pat Schroeder to provide David Hillyer Policy A3, Responsibilities of ANS Standards Committee Liaison Personnel, for reference to aid in finding a potential INPO liaison for the Standards Board (see ACTION ITEM 6/2018-09). DUE DATE: July 1, 2019	Schroeder	OPEN
6/2019-15	Pat Schroeder to issue the RIPB Guidance Document for trial use. DUE DATE: July 1, 2019	Schroeder	OPEN
6/2019-16	Andrew Smetana to reach out to the ANS-10.2 Working Group Chair to ask the working group to consider development of a revision focusing on processes. DUE DATE: September 1, 2019	Smetana	OPEN
6/2019-17	David Hillyer to contact Andrew Smetana for a recommendation of a radiological safety expert to join the FWDCC. DUE DATE: September 1, 2019	Hillyer	OPEN
6/2019-18	Steven Arndt to reach out to Donald Spellman and Richard Wood to stimulate better communication between ANS and IEEE/NPEC. DUE DATE: September 1, 2019	Arndt	OPEN
6/2019-19	George Flanagan and Gene Carpenter to discuss the implications of the INPRO Report and determine if there is a need for ANS standards action on micro and/or movable reactors. DUE DATE: November 1, 2019	Flanagan, Carpenter	OPEN
11/2018-01	Gene Carpenter to follow up with Sacit Cetiner to confirm if the ANS-3.15 Working Group has a representative from the Nuclear Information Technology Strategic Leadership (NITSL). DUE DATE: November 1, 2019	Carpenter	OPEN S. Cetiner does not believe that ANS-3.15 has a NITSL rep, but would welcome suggestions.
11/2018-04	Consensus committee chairs to complete Goal 3 (G) to provide recommendations for changes to improve consensus committee performance to the Policy Task Group Chair (i.e., the Standards Board Chair). DUE DATE: November 1, 2019	CC Chairs	OPEN

Standards Board Action Item Report from 6/11/19 Meeting

Action Item	Description	Responsibility	Status/Comments /Reassignments
11/2018-13	Pat Schroeder to explore the possibility and logistics of preparing an associate member video and work with consensus committee chairs to identify 2-3 associate members to participate (if possible). DUE DATE: October 1, 2019	Schroeder	In works Seven candidates have been identified and a series of questions sent via email. Scripts w/b prepared and videos created using webinar capabilities.
11/2018-14	Gene Carpenter, George Flanagan, Dave Hillyer, Carl Mazzola, and James O'Brien, to respond to the RP3C proposed approach as provided in the RP3C presentation report (slides 5-10) at the November 13, 2018, Standards Board meeting. DUE DATE: November 1, 2019	Carpenter, Flanagan, Hillyer, Mazzola, O'Brien	OPEN Presentation provided 12/12/18 & 4/16/19 to CCCs with a reminder of this action item. A request was made to extend the due date to allow use of the guidance document.
11/2018-15	Prasad Kadambi (lead), Robert Budnitz, Mark Linn, George Flanagan, Ed Wallace, and Robert Youngblood (at invitation of Kadambi) to evaluate need for a new guidance document or standard on the integrated, risk-informed decision making process and prepare a white paper for Standards Board consideration. DUE DATE: November 1, 2019	Kadambi, Budnitz, Linn, Flanagan, Wallace	OPEN Budnitz stated that he/JCNRM needs an initiative to decide if this guidance doc is needed. Linn clarified that the suggestion came from D. Spellman after a review of ANS-30.1. Wallace added that decision making is a broad topic in NEI 18-04. Wallace and Flanagan agreed to help with the white paper.
11/2018-16	James O'Brien to ask Garrett Smith, DOE's Standards Executive, to nominate a representative for ANS-3.16, "Meteorological Aspects of Wildland Fire Response." DUE DATE: November 1, 2019	O'Brien	OPEN Carpenter sent reminder directly to G. Smith 6/11/19 during the SB meeting and Smith confirmed receipt.
11/2018-19	Steven Arndt and Robert Budnitz to discuss lessons learned from the use of trial use standards. DUE DATE: November 1, 2019	Arndt, Budnitz	OPEN Arndt w/call Budnitz.
11/2018-20	Gene Carpenter to setup a teleconference with NRC to proactively discuss changes and answer any questions (within the appropriate restrictions) on ANS-3.5, "Nuclear Power Plant Simulators for Use in Operator Training and Examination" (revision of ANSI/ANS-3.5-2009). DUE DATE: November 1, 2019	Carpenter	On hold pending appeal completion
11/2018-21	Gene Carpenter to work with John Nakoski on the appointment of a NRC representative to the LLWRCC. DUE DATE: November 1, 2019	Carpenter, Nakoski	OPEN

Standards Board Action Item Report from 6/11/19 Meeting

Action Item	Description	Responsibility	Status/Comments /Reassignments
11/2018-25	Pat Schroeder to work with Garrett Smith for a DOE staffing recommendation to support maintenance on ANSI/ANS-5.10-1998 (R2013), "Airborne Release Fractions at Non-Reactor Nuclear Facilities." DUE DATE: November 1, 2019	Schroeder	OPEN Email reminder sent 12/3/18 & 5/27/19
11/2018-26	Andrew Smetana to contact Prasad Kadambi for RP3C guidance on including performance-based methods in ANS-19 standards. DUE DATE: November 1, 2019	Smetana, Kadambi	OPEN Kadambi will reach out to Smetana.
6/2018-01	Donald Eggett, Prasad Kadambi, Andrew Sowder, and William Turkowki to develop a strategy for how the ANS Standards Committee plans to be proactive and ready to take the lead in development of advanced reactor standards. DUE DATE: TBD	Eggett, Kadambi, Sowder, Turkowki	ON HOLD Arndt advised that this action should be put on hold until recommendations are made by John Kelly's special committee. Arndt added that the recommendation w/likely be out by September.
6/2018-02	Donald Eggett to contact Standards Board members on possible changes to industry priorities for standards development. DUE DATE: TBD	Eggett	ON HOLD On hold pending findings of NEI's priority survey. It was confirmed that this was pending NEI organizational restructuring.
6/2018-08	Gene Carpenter to review LLWRCC standards for potential revisions/projects that can incorporate additive manufacturing.	Carpenter	CLOSED Carpenter did a quick review of LLWRCC standards but didn't find any that could incorporate additive manufacturing.
6/2018-16	Gene Carpenter to keep Steven Arndt, Don Eggett, Robert Budnitz, and Gerry Kindred informed of progress on ANS-3.15 (cybersecurity standard) on a quarterly basis. DUE DATE: September 1, 2019	Carpenter	ON-GOING Update provided at 6/11/19 Standards Board meeting.
6/2018-19	David Hillyer to make some inquiries and provide the name(s) of a potential INPO liaison to Steven Arndt. DUE DATE: September 1, 2019	Hillyer	OPEN Hillyer asked for details of what the position entails. A new action item was assigned for Schroeder to send Hillyer the policy.
2/2018-03	Steven Arndt, Steven Stamm, and Pat Schroeder to follow up with Steven Stamm about possible suggestions for a communication piece on standards opportunities for local sections to be issued through their list serve.	Arndt, Stamm, Schroeder	CLOSED This action item was superseded by ACTION ITEM 6/2019-05.
10/2017-14	Steven Arndt and Donald Eggett to work with ANS Professional Divisions to establish an annual process to identify opportunities and representatives to make presentations at ANS meetings to encourage standards participation.	Arndt, Eggett	CLOSED A presentation for the PDC was updated and presented to the PDC at the annual meeting.

Standards Board Action Item Report from 6/11/19 Meeting

Action Item	Description	Responsibility	Status/Comments /Reassignments
10/2017-25	Gene Carpenter to contact DOE staff member to follow up on the review of ANS-3.8.7, "Criteria for Planning, Development, Conduct and Evaluation of Drills and Exercises for Emergency Preparedness." DUE DATE: November 1, 2019	Carpenter	OPEN Carpenter confirmed outreach made multiple times, but he is not getting a response. He will follow up with DOE Standards Executive for help.
10/2017-28	Steven Arndt to set up a meeting with Russ Bell ??? and senior NEI leaders. DUE DATE: November 1, 2019	Arndt	OPEN Bell retired. Arndt has been in contact with Mike Tschiltz/NEI and requested a meeting w/Tschiltz and others to discuss ANS standards.
06/2017-18	The Policy TG to determine how the statement on standards development drafted by Robert Busch is addressed. DUE DATE: November 1, 2019	Arndt/ Policy TG	OPEN The statement and SB comments on the statement are accessible here . The statement was discussed at the 11/13/18 meeting. Members agreed that a statement would be beneficial but feel that the 1st part on economics should be crafted carefully. The Policy TG will draft a statement and determine a location of where the statement is to be placed for SB approval.
6/2016-03	Russell Bell ??? to help coordinate ANS work on advanced reactor standards with other SDOs and	?/NEI Liaison	ON HOLD New NEI liaison needed.
6/2016-18	Gene Carpenter to discuss the needed action on standards ranked 11-20 on the standards priority survey with the LLWRCC and provide input at the SB at the next call/meeting. Due Date: On-going	Carpenter	ON-GOING Carpenter confirmed that the LLWRCC has reviewed the standards ranked 11-20 and will continue to review their progress.
11/2015-21	The LLWRCC to approve a PINS for a cybersecurity standard and forward to the standards manager. DUE DATE: August 1, 2019	Carpenter	OPEN The PINS is expected to be finalized at the ANS-3.15 WG meeting during the 2019 ANS Annual Meeting and will be sent to the LLWRCC for approval.

June 2019 Standards Board Informative Report to the ANS Board of Directors

from Standards Board Chair Steven A. Arndt

Comparison of Standards Board Goals and Objectives with New ANS Strategic Plan

The Standards Board approved Revision 2 of the Standards Committee Strategic Plan in December of 2017, just before the new ANS Strategic Plan was approved. A task group under the Standards Board performed an evaluation and comparison of the goals and objectives of both strategic plans. The task group concluded that the Standards Committee Strategic Plan fully addresses each applicable item of the ANS Strategic Plan. The following two items were raised for further consideration:

- 1) Should the Standards Board increase its participation in the International Organization of Standardization program considering both the benefits and the negatives of this program and our participation?
- 2) Should the Standards Board encourage Standards Committee leaders to consider nomination of Standards Committee members for existing ANS awards other than the Standards Service Award?

SMART Matrix Used to Track Standards Committee Strategic Plan Goals and Objectives

The Standards Board developed a SMART Matrix as a companion to the Standards Committee Strategic Plan to track progress on goals and objectives. The SMART Matrix is updated routinely with the latest revision issued on May 6, 2019. The Standards Board will review and assess progress on SMART Matrix actions when they meet during the 2019 ANS Annual Meeting. Like the Standards Committee Strategic Plan, the matrix aligns well with the recently updated ANS Strategic Plan.

Progress Update on the Risk-informed, Performance-based Principles and Policy Committee Activities

The Standards Board formed the Risk-informed, Performance-based Principles and Policy Committee (RP3C) in 2013 to establish the approaches, priorities, responsibilities and schedules for implementation of risk-informed and performance-based (RIPB) principles in ANS standards. Several goals for RP3C are set in the Standards Committee Strategic Plan, specifically Goal #1, Initiative D. Recent progress is provided below:

- An RP3C task group performed an evaluation of all standards (current, historic) and projects (active, inactive) to determine the benefits of incorporating RIPB methodology into each. A list of standards that would provide the most benefit from RIPB methods was prepared and provided to the responsible consensus committee for consideration and feedback. Discussions are ongoing.
- An article on the past, present, and future, of RIPB safety was submitted to *Nuclear News*. The article will be published in the June 2019 issue.

- A RIPB Guidance Document was prepared to identify roles and responsibilities and the process for using RIPB approaches. The guidance document is in the approval stage with the Standards Board. It is expected that the document will initially be issued for trial use.

ANS Standards Workspace Migration with ANS Collaborate and Potential Use as Volunteer Database

The migration of the ANS Standards Workspace into ANS Collaborate has been completed. The migration was started on February 20, 2019, and took longer than anticipated. The ANS Standards Workspace operated independently with self-contained user and company accounts. ANS Collaborate utilizes records from ANS's association management system (AMS). Much effort was required to correct roster errors and sync information with the AMS. Files and records from all 150+ sites from the ANS Standards Workspace were successfully migrated into ANS Collaborate, retaining each group's stored documents and ballot records. The merger provides ANS members that participate in ANS standards a single sign-on for all of their ANS activities. Additionally, ANS Collaborate's networking features offer a database of potential volunteers that may be interested in supporting ANS standards activities. The Standards Board has asked the ANS Information Technology Department to enhance these features for utilization as a standards volunteer database but understands that work on the redesign of the ANS website takes precedence.

Professional Division Liaison Program

The Standards Board initiated a liaison program with the support of the ANS Professional Divisions Committee in 2016. Standards Board Chair Steven Arndt is scheduled to address the Professional Divisions Committee at the 2019 ANS Annual Meeting. He will review the program benefits and liaison roles to ensure that new liaisons are familiar with the program. Since division leadership changes annually, liaisons can change as well. Division chairs will be contacted after the annual meeting to confirm their appointed liaisons.

Standards Committee Engagement of Young Professionals/Associate Member Video

The Associate Member Program was created in 2007 by the Standards Board at the suggestion of the ANS Young Member Group to allow young professionals the opportunity to participate in standards development without any experience. While standards development requires support of industry experts with years of experience, emerging professionals bring a fresh perspective and revitalization to ensure industry standards needs continue to be met. The Associate Member Program helps to sustain the standards program while providing young professionals and their organizations valuable experience.

The Associate Member Program includes university students and those that have only a few years of professional, industry experience. Associate members obtain voting privileges through active participation and increased technical and standards development knowledge. The goal is for the associate member to become a full voting member within two years, but the actual length of time to become a full member can vary greatly depending on the experience of the individual and their active participation.

Work is currently underway to produce a number of associate member video testimonials. Several candidates have been identified. The videos will be posted to ANS social media to encourage greater participation in the program.

Revised Standards Committee Glossary of Definitions & Terminology Issued

A task group under the ANS Standards Board completed another update of the Standards Committee Glossary of Definitions and Terminology. First issued in draft form in 1976, the glossary is an edited compilation of the definitions provided in standards issued by the ANS Standards Committee. The glossary provides a consistent set of definitions, to minimize the time-consuming task of developing unique definitions for each standard and to avoid unnecessary duplication. It is intended to be a living document subject to continual revision every few years. The updated [Standards Committee Glossary of Definitions and Terminology](#) is available on the ANS website as one of the guidance documents for working groups in the [Toolkit for ANS Standards Development and Maintenance](#).

ANS Standards Style Manual Issued for Trial Use

The first ANS Standards Style Manual was completed and issued for trial use by standards working group members in January of this year. The style manual incorporates guidance from the 1991 “Style Manual for Preparation of Proposed American National Standards” issued by the American National Standards Institute that remains valid and format and style criteria specific for ANS standards. The purpose of this style manual is to provide the necessary information to prepare American National Standards that are to be published by ANS. It provides detailed specifications regarding content, format, and style as well as detailed descriptions of ANS policies relating to ANS standards and their publication. The style manual includes an appendix which provides sample standard elements that illustrate the written specifications. The [ANS Standards Style Manual](#) is publically available in the [Toolkit for ANS Standards Development and Maintenance](#) on the ANS website.

Proposed Change to Policy on Guidance Standards

A revision of the Standards Committee Policy on the Development of Guidance Standards was proposed to accommodate development of a risk-informed-security guidance document by the ANS/ASME Joint Committee on Nuclear Risk Management (JCNRM). A couple of technical meetings was held by a JCNRM subgroup to explore the need and possible avenues to provide risk-analysis methods to physical and cyber security for nuclear power plants. The sentiments of this group are that the subject matter is not sufficiently mature enough to develop a standard and that the appropriate vehicle is a guidance document. Comments from the Standards Board ballot to approve the revised policy are currently being addressed.

Certification of Consensus Committee Balance of Interests

Balance of interests reports were prepared confirming that each consensus committee meets the requirement of no more than one-third of its membership from anyone interest category. As dictated by policy, the Standards Board will review each report at their June 2019 meeting and certify that all consensus committees are in compliance.

2019 Standards Action Activities

The following standards projects were initiated:

- ANS-3.5.1-201x, “Nuclear Power Plant Simulators for Use in Simulation-Assisted Engineering and Non-Operator Training” (new standard)
- ANS-57.8-201x, “Fuel Assembly Identification” (revision of ANSI/ANS-57.8-1995 (R2017))
- ANS-59.3-201x, “Nuclear Safety Criteria for Control Air Systems” (new standard)

The following standards and/or draft standards were issued for ballot and public review:

- ANS-1-2000 (R201x), “Conduct of Critical Experiments” (reaffirmation of ANSI/ANS-1-2000 (R2012))
- ANS-2.8-201x, “Probabilistic Evaluation of External Flood Hazards for Nuclear Facilities” (new standard, supersedes ANS-2.8-1992)
- ANS-8.19-1995 (R201x), “Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors” (reaffirmation of ANSI/ANS-8.19-1995 (R2011))
- ANS-14.1-2004 (R201x), “Operation of Fast Pulse Reactors” (reaffirmation of ANSI/ANS-14.1-2004 (R2009))
- ANS-54.1-201x, “Nuclear Safety Criteria and Design Process for Liquid-Sodium-Cooled-Reactor Nuclear Power Plants” (reaffirmation of ANSI/ANS-14.1-2004 (R2009))
- ANS-57.11-201x, “Integrated Safety Assessments for Nonreactor Nuclear Facilities” (new standard)
- ANS-58.8-201x, “Time Response Criteria for Manual Actions at Nuclear Power Plants” (revision of ANSI/ANS-58.8-1994 (R2017))

The following standards were approved:

- ANSI/ANS-5.1-2014 (R2019), “Decay Heat Power in Light Water Reactors” (reaffirmation of ANSI/ANS-5.1-2014)
- ANSI/ANS-8.21-1995 (R2019), “Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors” (reaffirmation of ANSI/ANS 8.21-1995 (R2011))
- ANSI/ANS-16.1-2019, “Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure” (revision of ANSI/ANS-16.1-2003 (R2017))
- ANSI/ANS-19.1-2019, “Nuclear Data Sets for Reactor Design Calculations” (revision of ANSI/ANS-19.1-2002 (R2011))

The following standards were published:

- ANSI/ANS-16.1-2019, “Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure” (revision of ANSI/ANS-16.1-2003 (R2017))
- ANSI/ANS-19.1-2019, “Nuclear Data Sets for Reactor Design Calculations” (revision of ANSI/ANS-19.1-2002 (R2011))

ANS Standards Board Meeting

ANS Annual Meeting, Minneapolis, MN

June 11, 2019

Vice Chairman's Report

Possible Changes in Industry Priorities for Standards Development (Eggett Action Item 6/2018-02)

As a result from the 2018 Standards Forum this past September, an action item came out assigned to NEI to send out to its NEI members to identify and prioritize areas of standards' needs. Steve Vaughn at NEI was assigned this responsibility. (sjv@nei.org). I have not seen personally a response from NEI regarding this matter, but I would probably be the last person to receive this. So, my question is "Did we ever receive a response from NEI on setting priorities for standards based on their "survey?"

ANS to Lead in Advanced Reactor Standards Development

A team of Eggett, Turkowski, Kadambi, and Sowder held a teleconference in August 2018 to discuss plans for addressing the action received (6/2018-01). The assigned action was:

- develop a strategy to determine how the ANS Standards Committee plans to be proactive and ready to take the lead in development of advanced reactor standards. Some discussion centered on what advanced plants should even be considered: LWR, SMR, Micro reactors. Even the possibility of developing a white paper may be needed. It was also discussed that this action be put a hold on moving forward until we understand what John Kelly's team is doing and his special committee provides results. They were tasked with this same action also. The thought is to reconvene after the 9/11/2018 presentation that Steve Arndt is making to the NRC standards forum and also John Kelly's meeting with the NRC.

Action: What update do we have on John Kelly's Special Committee on ANS Taking the Lead on Advanced Reactors/SB role? Should we close this action item as a result of other initiatives that should take the lead? As a reference, a meeting of his committee was scheduled with the NRC in mid-October to discuss the subject of grants for standards and other posed items for discussion. I don't recall any other follow-up meetings or discussions since October.

Opportunities for Standards Presentation

- 2019 Student Conference – Larry Wetzel made the presentation at the students' conference in April 2019.
- ANS Professional Divisions – Steve Arndt to make a presentation soon at a scheduled National Meeting.

Need for Consideration of Climate Change in ANS Standards (Item #9, Current Issues of Agenda)

ANSI is driving this issue so ANS standards are consistent with ISO standards but these areas along with tornados, hurricanes, ice storms, etc. are already required to be analyzed as part of the Environmental Report for a site. So why are we adding a section to the standard that already captures these climate changes in the ER?

(Eggett Comment)

Secretary/Staff Report

2019 ANS Annual Meeting

ANS Standards Workspace Merger into ANS Collaborate

The migration of the ANS Standards Workspace into ANS Collaborate has been completed. The migration was started on February 20, 2019, and took longer than anticipated. The ANS Standards Workspace operated independently with self-contained user and company accounts. ANS Collaborate utilizes records from ANS’s Association Management System (AMS). Much effort continues to correct roster errors and sync information with the AMS. Files and records from all 150+ sites from the ANS Standards Workspace were successfully migrated into ANS Collaborate, retaining each group’s stored documents and ballot records. The merger provides ANS members that participate in ANS standards a single sign-on for all of their ANS activities.

Standards Volunteer Database Update

An initial request was made in 2004 for the ANS Information Technology Department to create an online volunteer database that Standards Committee chairs could use to search for potential candidates to fill committee staffing needs. Some work was initiated but eventually stalled due to the lack of needed hardware, ANS staff changes, and an upgrade of ANS’s AMS. The merger of the ANS Standards Workspace into ANS Collaborate now affords a number of opportunities to use ANS Collaborate to search for candidates to fill committee staffing needs. Through the “Network” feature, searches can be performed by relevant divisions, interests, name, and company affiliation. ANS Collaborate allows members to add a profile. This profile, if added and searchable, would be very helpful in searching for potential volunteer candidates. The key to the success of utilizing ANS Collaborate as a standards volunteer database is getting members to populate their accounts with their interests and add their profile. This is expected to be a challenge considering the low usage of ANS Collaborate by ANS members.

The ANS IT Department has been asked to build on existing capabilities; however, they are currently engaged in a redesign of the ANS website at the direction of the ANS Board of Directors. The IT Department will not be in a position to start work on customizing ANS Collaborate for use as a volunteer database until the website redesign is completed. This will likely be the end of 2019 or early 2020.

Report of Sales through Partnered Store with Techstreet

The Techstreet partnered standards store went live on August 30, 2018. Techstreet’s 3rd quarter royalty report showed an increase of ~\$5,000 from the previous quarter’s royalty payment (\$2,465). Considering the partnered store had been launched only a month of the 3rd quarter, the increase was promising. Unfortunately, the royalty payment for the 4th quarter of 2018 (\$7,580) showed no increase, and a decrease was recognized for the 1st quarter of 2019 (\$5,280). A summary for all resellers for 2018 and 2019 year to date is provided below:

Royalties 2018					
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
I.H.S.	\$82,923.88	\$52,397.37	\$27,724.82	\$69,580.61	\$232,626.68
Tech St.	\$1,890.08	\$2,464.55	\$7,979.15	\$7,579.39	\$19,913.17
ANSI	\$1,361.10	\$346.45	\$514.15	\$963.95	\$3,185.65
Total	\$86,175.06	\$55,208.37	\$36,218.12	\$78,123.95	\$255,725.50
Royalties 2019					
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
I.H.S.	\$71,139.65				\$71,139.65
Tech St.	\$5,282.47				\$5,282.47
ANSI	\$1,194.70				\$1,194.70
Total	\$77,616.82				\$77,616.82

Standards Committee Engagement of Young Professionals/Associate Member Video

The Associate Member Program was created in 2007 by the Standards Board at the suggestion of the ANS Young Member Group to allow emerging professionals the opportunity to participate in standards development with little to no experience. The Associate Member Program includes university students, young professionals, and those that may have changed career direction. The goal for an associate member is to become a full voting member within two years, but the actual associate member term can vary greatly depending on the experience of the individual and their active participation.

The Associate Member Program continues to grow. Working group chairs have placed 65 young professionals of which 9 are active as full members. Currently, the Standards Committee has 40 associate members with 16 associate members either resigning or dropped for lack of response. Work is underway to produce several associate member video testimonials. Candidates have been identified and sent a series of questions. A script will be prepared for selected individuals to use on the video. The videos will be posted to ANS social media to encourage greater participation in the program.

2018 Standards Committee Annual Report of Activities

The 2018 Standards Committee Report of Activities was completed. The report of activities presents a record of the Standards Committee's achievements for the calendar year 2018. At the end of the year, there were a total of 82 current standards approved by the American National Standards Institute as American National Standards. The report recognizes the initiation of 8 standards projects, the approval of 10 reaffirmations, and the approval of 2 new standards. The report provides the status of active ANS standards projects and recognizes its numerous volunteer members who participate in the development of ANS-sponsored nuclear standards. A copy of the report is available at <https://ssl.ans.org/cms/media/?m=1046&n=2018+Annual+Activity+Report+-FINAL.pdf>

ANS Standards Style Manual Issued for Trial Use

The ANS Standards Style Manual was posted to the ANS website in January of 2019 for trial use. The ANS Standards Style Manual is in the likeness of the ANSI Style Manual (1991) with many updates and details specific to ANS. The ANS Standards Style Manual is one of many pieces available to working groups in the [Toolkit for ANS Standards Development and Maintenance](#). Several working groups have been directed to the style manual and have provided positive feedback.

ANS Collaborate Usage Stats

Previous reports have included workspace usages stats. With the merger of ANS Standards Workspace into ANS Collaborate, collective reports have no value as they now include all ANS committee usage. The Standards Committee Members site now recognizes 770 Standards Committee members. Consensus committee ballot usage is provided below:

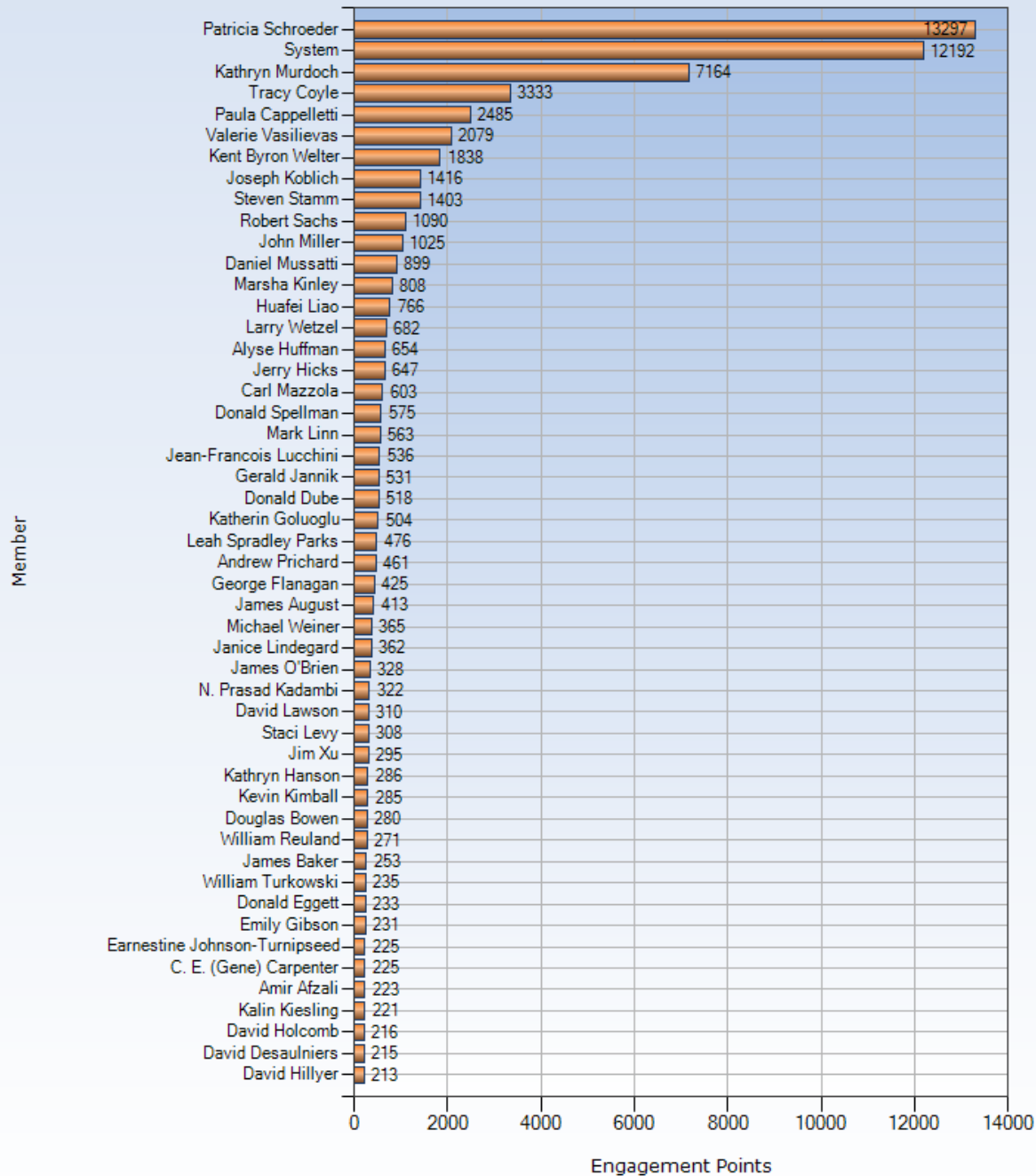
Committee	2015 Ballots Issued	2016 Ballots Issued	2017 Ballots Issued	2018 Ballots Issued	2019 Ballots Issued (through 5/26/19)
Standards Board	25	64	53	31	16
ESCC	11	25	25	12	9
FWDCC	3	17	15	2	2
LLWRCC	13	17	17	19	7
NCSCC	6	10	17	7	8
NRNFCC	5	4	2	4	4
RARCC	6	14	5	5	4
SRACC	5	14	10	7	2

Working group use of the site continues to grow. A series of webinars aiding users and working group chairs in the use of ANS Collaborate will be scheduled once Higher Logic completes improvements related to workspace functions.

The below chart is provided to recognize the engagement of Standards Committee members. The chart lists the 50 most engaged ANS Collaborate users. Removing 7 ANS staff members and “System” usage, 39 of the 43 users are Standards Committee members!

Engagement by User - Overall

Jan 1, 2019 - May 17, 2019



ANS/Techstreet Sales Report 10-1-18 to 3-31-19

Doc No	Title	Qty	Vendor Price	Gross Revenue	Total Discount %	Disc Amount	Gross Revenue After Discount	Source	Format	% Due	Royalty Amount	Fulfillment Method	MultiUser
1-2000 (R2012)	Conduct of Critical Experiments	1	\$39.60	39.60	0.00%	\$0.00	\$39.60	Web	Print	75.00%	\$29.70	PDLC	Single
15.16-2015	Emergency Planning for Research Reactors	1	\$70.20	70.20	0.00%	\$0.00	\$70.20	Web	PDF	80.00%	\$56.16	PODL	Single
15.8-1976 (R1986)	Quality Assurance Program Requirements for Research Reactors	1	\$44.00	44.00	0%	\$0.00	\$44.00	Web	PDF	60.00%	\$26.40	PODL	Single
15.8-1995 (R2018)	Quality Assurance Program Requirements for Research Reactors	1	\$70.00	70.00	0.00%	\$0.00	\$70.00	Web	PDF	80.00%	\$56.00	PODL	Single
18.1-1999	Radioactive Source Term for Normal Operation of Light Water Reactors	1	\$105.00	105.00	0%	\$0.00	\$105.00	Web	PDF	60.00%	\$63.00	PODL	Single
19.6.1-2011 (R2016)	Reload Startup Physics Tests for Pressurized Water Reactors	1	\$119.70	119.70	0%	\$0.00	\$119.70	Web	PDF	60.00%	\$71.82	PODL	Single
2.15-2013 (R2017)	Criteria for Modeling and Calculating Atmospheric Dispersion of Routine Radiological Releases from Nuclear Facilities	2	\$376.00	376.00	0.00%	\$0.00	\$376.00	Phone	Print	75.00%	\$282.00		
2.2-2016	Earthquake Instrumentation Criteria for Nuclear Power Plants	1	\$202.00	202.00	0.00%	\$0.00	\$202.00	Web	PLUS	80.00%	\$161.60	PDLC	Single
2.26-2004 (R2017)	Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design	3	\$393.00	393.00	0.00%	\$0.00	\$393.00	Phone	Print	75.00%	\$294.75	PDLC	Single
2.27-2008 (R2016)	Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	1	\$133.00	133.00	0%	\$0.00	\$133.00	Phone	Print	60.00%	\$79.80	PDLC	Single
2.27-2008 (R2016)	Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments	2	\$266.00	266.00	0.00%	\$0.00	\$133.00	Phone	Print	75.00%	\$199.50		
2.3-2011 (R2016)	Estimating Tornado, Hurricane, and Extreme Straight Line Wind Characteristics at Nuclear Facility Sites	2	\$154.00	154.00	0.00%	\$0.00	\$154.00	Phone	Print	75.00%	\$115.50	PDLC	Single
3.11-2015	Determining Meteorological Information at Nuclear Facilities	1	\$242.00	242.00	0%	\$0.00	\$242.00	Phone	Print	60.00%	\$145.20	PODL	Single
3.1-2014	Selection, Qualification and Training of Personnel for NPPs	1	\$126.90	126.90	0.00%	\$0.00	\$126.90	Web	Print	75.00%	\$95.18	PDLC	Single
3.1-2014	Selection, Qualification and Training of Personnel for NPPs	1	\$282.00	282.00	0.00%	\$0.00	\$282.00	Web	PDF	80.00%	\$225.60	PODL	Single
3.2-2012 (R2017)	Managerial, Administrative, and Quality Assurance Controls for the Operational Phase of Nuclear Power Plants	1	\$138.00	138.00	0%	\$0.00	\$138.00	Web	PDF	60.00%	\$82.80	PODL	Single
3.2-2012 (R2017)	Managerial, Administrative, and Quality Assurance Controls for the Operational Phase of Nuclear Power Plants	1	\$124.20	124.20	0.00%	\$0.00	\$124.20	Web	Print	75.00%	\$93.15	PDLC	Single
3.4-2013 (R2018)	Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants	1	\$152.00	152.00	0%	\$0.00	\$152.00	Web	PDF	60.00%	\$91.20	PODL	Single
3.5-2009	NPP Simulators for Use in Operator Training and Examination	1	\$133.00	133.00	0.00%	\$0.00	\$133.00	Web	PDF	80.00%	\$106.40	PODL	Single
3.5-2009	NPP Simulators for Use in Operator Training and Examination	1	\$266.00	266.00	0.00%	\$0.00	\$266.00	Web	Print	75.00%	\$199.50	PDLC	Single
4.5-1980 (R1986)	Criteria for Accident Monitoring Functions in LWRs	1	\$69.30	69.30	0.00%	\$0.00	\$69.30	Web	PDF	80.00%	\$55.44	PODL	Single
40.37-2009 (R2016)	Mobile Low-Level Radioactive Waste Processing Systems	1	\$161.00	161.00	0%	\$0.00	\$161.00	Web	PDF	60.00%	\$96.60	PODL	Single
5.10-1998 (R2013)	Airborne Release Fractions at Non-Reactor Nuclear Facilities	1	\$290.00	290.00	0.00%	\$0.00	\$290.00	Phone	Print	75.00%	\$217.50	PDLC	Single
5.1-2014 (R2019)	Decay Heat Power in Light Water Reactors	1	\$165.60	165.60	0%	\$0.00	\$165.60	Web	Print	60.00%	\$99.36	PDLC	Single
5.1-2014 (R2019)	Decay Heat Power in Light Water Reactors	1	\$184.00	184.00	0.00%	\$0.00	\$184.00	Web	PDF	80.00%	\$147.20	PODL	Single
51.1-1983 (R1988)	Nuclear Safety Criteria for the Design of Stationary PWRs	1	\$231.00	231.00	0.00%	\$0.00	\$231.00	Web	PDF	80.00%	\$184.80	PODL	Single
52.1-1983 (R1988)	Nuclear Safety Criteria for the Design of Stationary BWRs	1	\$229.00	229.00	0%	\$0.00	\$229.00	Web	PDF	60.00%	\$137.40	PODL	Single
55.1-1992 (R2017)	Solid Radioactive Waste Processing System for LWRs	1	\$164.00	164.00	0%	\$0.00	\$164.00	Web	PDF	60.00%	\$98.40	PODL	Single
55.4-1993 (R2007)(W2017)	Gaseous Radioactive Waste Processing Systems for LWRs	1	\$142.00	142.00	0%	\$0.00	\$142.00	Web	PDF	60.00%	\$85.20	PODL	Single
56.11-1988	Design Criteria for Protection Against the Effects of Compartment Flooding in Light Water Reactor Plants	1	\$77.00	77.00	0%	\$0.00	\$77.00	Web	PDF	60.00%	\$46.20	PODL	Single
56.8-2002 (R2016)	Containment System Leakage Testing Requirements	1	\$149.00	149.00	0%	\$0.00	\$149.00	Phone	Print	60.00%	\$89.40	PDLC	Single
57.3-2018	Design Requirements for New Fuel Storage Facilities at LWRs	1	\$86.00	86.00	0%	\$0.00	\$86.00	Web	Print	60.00%	\$51.60	PDLC	Single
57.5-1996 (R2006)	Light Water Reactors Fuel Assembly Mechanical Design and Evaluation	3	\$124.80	124.80	0.00%	\$0.00	\$124.80	Web	PDF	80.00%	\$99.84	PODL	MultiUser
57.9-1992 (R2000)	Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)	1	\$193.00	193.00	0%	\$0.00	\$193.00	Web	PDF	60.00%	\$115.80	PODL	Single
58.14-2011 (R2017)	Safety and Pressure Integrity Classification Criteria for LWRs	1	\$191.70	191.70	0%	\$0.00	\$191.70	Web	PDF	60.00%	\$115.02	PODL	Single
58.16-2014	Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities	1	\$169.00	169.00	0%	\$0.00	\$169.00	Phone	Print	60.00%	\$101.40	PDLC	Single
58.16-2014	Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities	1	\$338.00	338.00	0.00%	\$0.00	\$338.00	Phone	Print	75.00%	\$253.50	PDLC	Single
58.2-1988	Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	1	\$420.00	420.00	0%	\$0.00	\$420.00	Web	PDF	60.00%	\$252.00	PODL	Single
58.3-1992 (R2018)	Physical Protection for Nuclear Safety-Related Systems and Components	1	\$304.00	304.00	0.00%	\$0.00	\$304.00	Phone	Print	75.00%	\$228.00	PDLC	Single
59.2-1985	Safety Criteria for HVAC Systems Located Outside Primary Containment	1	\$133.00	133.00	0.00%	\$0.00	\$133.00	Web	PDF	80.00%	\$106.40	PODL	Single
6.1.1-1991	Neutron and Gamma-Ray Fluence-to-Dose Factors	1	\$112.00	112.00	0%	\$0.00	\$112.00	Web	PDF	60.00%	\$67.20	PODL	Single
6.1.2-2013 (R2018)	Group-Averaged Neutron and Gamma-Ray Cross Sections for Radiation Protection and Shielding Calculations for Nuclear Power Plants	1	\$61.00	61.00	0%	\$0.00	\$61.00	Web	PDF	60.00%	\$36.60	PODL	Single
6.1.2-2013 (R2018)	Group-Averaged Neutron and Gamma-Ray Cross Sections for Radiation Protection and Shielding Calculations for Nuclear Power Plants	1	\$61.00	61.00	0.00%	\$0.00	\$61.00	Phone	Print	75.00%	\$45.75	PDLC	Single
6.4.2-2006 (R2016)	Specification for Radiation Shielding Materials	1	\$86.00	86.00	0%	\$0.00	\$86.00	Web	PDF	60.00%	\$51.60	PODL	Single
6.4.3-1991	Gamma-Ray Attenuation Coefficients and Buildup Factors for Engineering Materials	1	\$256.00	256.00	0%	\$0.00	\$256.00	Web	PDF	60.00%	\$153.60	PODL	Single
6.4.3-1991	Gamma-Ray Attenuation Coefficients and Buildup Factors for Engineering Materials	1	\$256.00	256.00	0.00%	\$0.00	\$256.00	Phone	Print	75.00%	\$192.00	PDLC	Single

ANS/Techstreet Sales Report 10-1-18 to 3-31-19

Doc No	Title	Qty	Vendor Price	Gross Revenue	Total Discount %	Disc Amount	Gross Revenue After Discount	Source	Format	% Due	Royalty Amount	Fulfillment Method	MultiUser
6.4-2006 (R2016)	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	1	\$229.00	229.00	0%	\$0.00	\$229.00	Web	PDF	60.00%	\$137.40	PODL	Single
6.6.1-2015	Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants	1	\$142.20	142.20	0%	\$0.00	\$142.20	Web	PDF	60.00%	\$85.32	PODL	Single
6.6.1-2015	Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants	1	\$158.00	158.00	0.00%	\$0.00	\$158.00	Web	PDF	80.00%	\$126.40	PODL	Single
8.10-2015	Criteria for Nuclear Criticality Safety Controls in Operations With Shielding and Confinement	1	\$61.00	61.00	0%	\$0.00	\$61.00	Web	Print	60.00%	\$36.60	PDLC	Single
8.1-2014 (R2018)	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	1	\$105.00	105.00	0%	\$0.00	\$105.00	Web	Print	60.00%	\$63.00	PDLC	Single
8.1-2014 (R2018)	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	1	\$137.00	137.00	0%	\$0.00	\$137.00	Web	PLUS	50.00%	\$68.50	PDLC	Single
8.1-2014 (R2018)	Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors	1	\$105.00	105.00	0.00%	\$0.00	\$105.00	Web	PDF	80.00%	\$84.00	PODL	Single
8.14-2004 (R2016)	Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors	5	\$83.20	83.20	0%	\$0.00	\$83.20	Web	PDF	60.00%	\$49.92	PODL	MultiUser
8.15-2014	Nuclear Criticality Safety Control of Selected Actinide Nuclides	1	\$121.00	121.00	0%	\$0.00	\$121.00	Web	Print	60.00%	\$72.60	PDLC	Single
8.19-2014	Administrative Practice for Nuclear Criticality Safety	1	\$56.00	56.00	0%	\$0.00	\$56.00	Web	Print	60.00%	\$33.60	PDLC	Single
8.21-1995 (R2011)	Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors	1	\$52.00	52.00	0%	\$0.00	\$52.00	Web	Print	60.00%	\$31.20	PDLC	Single
8.24-2017	Validation of Neutron Transport Methods for Nuclear Criticality Safety	1	\$135.00	135.00	0%	\$0.00	\$135.00	Web	Print	60.00%	\$81.00	PDLC	Single
8.24-2017	Validation of Neutron Transport Methods for Nuclear Criticality Safety	1	\$135.00	135.00	0.00%	\$0.00	\$135.00	Web	PDF	80.00%	\$108.00	PODL	Single
8.27-2015	Burnup Credit for LWR Fuel	1	\$103.00	103.00	0%	\$0.00	\$103.00	Web	Print	60.00%	\$61.80	PDLC	Single
HPSSC-6.8.1-1981	Location and Design Criteria for Area Radiation Monitoring Systems for Light Water Nuclear Reactors	1	\$77.00	77.00	0%	\$0.00	\$77.00	Web	PDF	60.00%	\$46.20	PODL	Single
RA-S-1.3-2017	Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications	1	\$198.00	198.00	0%	\$0.00	\$198.00	Phone	Print	60.00%	\$118.80	PODL	Single
	Shielding Standards Bundle	1	\$605.00	605.00	0%	\$0.00	\$605.00	Phone	PLUS	50.00%	\$302.50	PDLC	Single
	Research Reactor Standards Bundle	1	\$617.00	617.00	0%	\$0.00	\$617.00	Phone	PDF	60.00%	\$370.20	PODL	Single
	Nuclear Criticality Safety Standards Bundle	1	\$1,408.00	1,408.00	0%	\$0.00	\$1,408.00	Phone	PLUS	50.00%	\$704.00	PDLC	Single
	Research Reactor Standards Bundle	1	\$555.30	555.30	0%	\$0.00	\$555.30	Web	PDF	60.00%	\$333.18	PODL	Single

77

\$13,172.70

\$0.00

\$13,039.70

Subtotal: \$8,517.29

Subscriptions: \$ 4,758.60

Less (Q4) 5% Bonus: \$ (414.04)

Total: \$ 12,861.85

Proposed Schedule of CC/RP3C Meetings

ANS WINTER MEETINGS

Committee	Time	Staff
Sunday		
SRACC	3:00 p.m. to 5:00 p.m.	Staff 1
Monday		
NRNFCC	8:00 a.m. to 10:00 a.m.	Staff 2
ESCC	10:00 a.m. to 12:00 p.m.	Staff 2
FWDCC	10:00 a.m. to 12:00 p.m.	Staff 1
RARCC	1:00 p.m. to 3:00 p.m.	Staff 1
NCSCC	1:30 p.m. to 4:00 p.m.	Staff 2
RP3C	3:30 p.m. to 6:00 p.m.	Staff 1
Tuesday		
--- RESERVED FOR STANDARDS BOARD MEETING ---		
Wednesday		
LLWRCC	9:00 a.m. to 12:00 p.m.	Staff 1

American Nuclear Society

Environmental & Siting Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (1 Vote)

Ng, Kit	Bechtel Infrastructure and Power Corporation
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Consultant (3 Votes)

Call, Jennifer (ESCC VC & Subcommittee Chair)	Oasys, Inc.
Mazzola, Carl (ESCC Chair)	Project Enhancement Corporation
Simpkins, Ali	Dade Moeller, an NV5 Company

Government Agency (3 Votes)

Li, Yong	Defense Nuclear Facilities Safety Board
*O'Brien, James	U.S. Department of Energy
*Gutierrez, Brent; U.S. Department of Energy	
Rosenbloom, Samuel; U.S. Department of Energy	
*Xu, Jim (Subcommittee Vice Chair)	U.S. Nuclear Regulatory Commission
*Parks, Leah (Subcommittee Chair); U.S. Nuclear Regulatory Commission	

Individual (3 Votes)

Bryson, Kevin (Subcommittee Chair)	Individual
Gao, Yan (Subcommittee Chair)	Individual
Savy, Jean	Individual

National Laboratory/Government Facilities (3 Votes)

*Bellinger, Thomas	Consolidated Nuclear Security, llc
*Hunt, R. Joe; Consolidated Nuclear Security, llc	
Bruggeman, David	Los Alamos National Laboratory
Ebert, William	Argonne National Laboratory

Owner/Operator (1 Vote)

Kinley, Marsha	Duke Energy
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**Shares one vote with member(s) from the same company*

Vote Summary

Architect-Engineer (1 Vote)	7%
Consultant (3 Votes)	21%
Government Agency (3 Votes)	21%
Individual (3 Votes)	21%
National Laboratory/Government Facilities (3 Votes)	21%
Owner/Operator (1 Vote)	7%
TOTAL VOTES (14)	100%

American Nuclear Society

Fuel, Waste, and Decommissioning Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (1 Vote)

Lewis, D. Wayne	WECTEC
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Government Agency (1 Vote)

Felsher, Harry	U.S. Nuclear Regulatory Commission
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Individual (4 Votes)

Hillyer, David	Individual
Brault, Jeffery	Individual
Jansen Vehec, Jodine	Individual
Sanders, Mitchell	Individual

National Laboratory/Government Facilities (1 Vote)

Lucchini, Jean Francois	Los Alamos National Laboratory
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Owner (2 Votes)

Miller, Coleman	Pacific Gas & Electric Company
Stasko, Maryanne	Duke Energy

Vendor (3 Votes)

Bader, Steven	Orano Federal Services LLC
Schilthelm, Steven	BWX Technologies, Inc.
Smedra, Thomas	Westinghouse Electric Company LLC

Vote Summary

Architect-Engineer (1 Vote)	8%
Government Agency (1 Vote)	8%
Individual (4 Votes)	33%
National Laboratory/Government Facilities (1 Vote)	8%
Owner (2 Votes)	17%
Vendor (3 Votes)	25%
TOTAL VOTES (12 Votes)	100%

5/30/2019

American Nuclear Society

ASME/ANS Joint Committee on Nuclear Risk Management

Balance of Interest (June 2019)

Consultant (3 Votes)

Amico, Paul J.	Jensen Hughes
Jones, Diane M.	Maracor, a division of Enercon
Sloane, Barry D.	Jensen Hughes

Government Agency (3 Votes)

Drouin, Mary	U.S. Nuclear Regulatory Commission
O'Brien, James	U.S. Department of Energy
Spitzer, Cornelia	International Atomic Energy Agency

Individual (9 Votes)

Apostolakis, George	Individual
Fleming, Karl N.	Individual
Grantom, C. Rick	Individual
Hackerott, H. Alan	Individual
Jansen-Vehec, Jodine	Individual
Levinson, Stanley H.	Individual
Ravindra, Mayasandra K.	Individual
Sattison, Martin	Individual
Wall, Ian B.	Individual

BOI complies with Sec. 2.3 of the ASME Management & Operations Manual permitting no more than 4 voting members from the same organization for committees >30 members. The JCNRM approved multiple votes from Jensen Hughes, GE, and Westinghouse at their February 2019 meeting.

National Laboratory/Government Facilities (2 Votes)

Budnitz, Robert J.	Lawrence Berkeley National Laboratory
Grabaskas, David	Argonne National Laboratory

Owner/Operator (9 Votes)

Anderson, Victoria K.	Nuclear Energy Institute
DeMoss, Gary	PSEG
Ferrante, Fernando	Electric Power Research Institute
Fine, K. Raymond	FirstEnergy Nuclear Operating Company
Linthicum, Roy R.	PWR Owners Group (Exelon Corporation)
Hook, Thomas G.	Arizona Public Service
Kindred, Gerry W.	Tennessee Valley Authority
Rishel, Robert I.	Duke Energy
Stone, Jeffery L.	Exelon Corporation

Universities (2 Vote)

Bensi, Shelby	University of Maryland
Nelson, Pamela F.	National Autonomous University of Mexico

Vendor (6 Votes)

Bristol, Sarah	NuScale
Denman, Matthew R.	Kairos Power
Henneke, Dennis W.	General Electric
Maioli, Andrea	Westinghouse Electric Co., LLC
Schneider, Raymond E.	Westinghouse Electric Co., LLC
Young, James W.	GE Hitachi

Voting Summary

Consultant (3 Votes)	9%
Government Agency (3 Votes)	9%
Individual (9 Votes)	26%
National Laboratory/Government Facilities (2 Votes)	6%
Owner/Operator (9 Votes)	26%
Universities (2 Vote)	6%
Vendor (6 Votes)	18%
Total Votes = 34	100%

In 2008, the Standards Board approved two votes from Westinghouse. The justification is that one individual represents existing plants, the other new plants.

American Nuclear Society

Large Light Water Reactor Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (2 Votes)

French, Michelle (Subcommittee Chair)	WECTEC
*Routh, Stephen	Bechtel Power Corporation
*Christensen, Lowell; Bechtel Power	

Consultant (5 Votes)

Burg, Robert	Engineering Planning & Management, Inc.
Gebers, Steven	Quantum Nuclear Services
Glover, James	Graftel, Inc.
Lloyd, Evan	Exitech Corporation
Markovich, Ronald (Subcommittee Chair)	Contingency Management Consulting

Government Agency (1 Vote)

*Carpenter, Gene (LLWRCC Chair)	U.S. Department of Energy
*Guha, Pranab (Subcommittee Chair)	U.S. Department of Energy

Individual (2 Votes)

Reuland, William (LLWRCC Vice Chair)	Individual
Stamm, Steven	Individual

National Laboratory/Government Facilities (1 Vote)

Linn, Mark	Oak Ridge National Laboratory
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Owner/Operator (2 Votes)

Florence, James	Nebraska Public Power District
Johnson-Turnipseed, Earnestine	Entergy Corporation

Society (1 Vote)

Moseley, Jr., Charles	ASME NQA Liaison (Individual)
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Vendor (4 Votes)

Becse, Robert	Westinghouse Electric Company, LLC (Existing Plants)
Colby, Mark	Global Nuclear Fuels - Americas
Gardner, Darrell	Kairos Power
Meneely, Timothy	Westinghouse Electric Company, LLC (New Plants)

**shares one vote with member(s) from the same company*

Voting Summary

Architect-Engineer (2 Votes)	11%
Consultant (5 Votes)	28%
Government Agency (1 Vote)	6%
Individual (2 Votes)	11%
National Laboratory/Government Facilities (1 Vote)	6%
Owner/Operator (2 Votes)	11%
Society (1 Vote)	6%
Vendor (4 Votes)	22%
TOTAL VOTES (18)	100%

In 2010, the Standards Board approved two DOE votes with the rationale that one works for DOE Environment Management (in their operational office) and the other for DOE Health and Safety (in their regulatory development office).

American Nuclear Society

Nuclear Criticality Safety Consensus Committee

Balance of Interest (June 2019)

Consultant (1 Vote)

*Taylor, Richard	C.S. Engineering, Inc.
*Bartholomay, Roger	C.S. Engineering, Inc.

Government Agency (3 Votes)

Berg, Lawrence	U.S. Department of Energy
Marenchin, Thomas	U.S. Nuclear Regulatory Commission
Wilson, Robert	U.S. Department of Energy

Individual (2 votes)

Hopper, Calvin	Individual
Kimball, Kevin	Individual

National Laboratory/Government Facilities (3 Votes)

Bowen, Douglas (Subcommittee chair)	Oak Ridge National Laboratory
Elliott, Ernest	N3B
Miller, John	Sandia National Laboratories

Society (2 Votes)

Knief, Ronald	INMM Rep. (Employed by Sandia Nat'l Laboratories)
Murray, Scott	HPS Rep. (Employed by General Electric)

University (1 Vote)

Busch, Robert	University of New Mexico
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Vendor (3 Votes)

Doane, William	Framatome Inc.
Shackelford, William (NCSCC Vice Chair)	Nuclear Fuel Services, Inc.
Wetzel, Larry (NCSCC Chair)	BWX Technologies, Inc.

**shares one vote*

Voting Summary

Consultant (1 Vote)	7%
Government Agency (3 Votes)	20%
Individual (2 votes)	13%
National Laboratory/Government Facilities (3 Votes)	20%
Society (2 Votes)	13%
University (1 Vote)	7%
Vendor (3 Votes)	20%
TOTAL VOTES (15)	100%

American Nuclear Society

Nonreactor Nuclear Facilities Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (2 Votes)

Anselmi, Todd	Enercon Services
Rogerson, Paul	Bechtel Power Corp.

Consultant (2 Votes)

Gupta, Mukesh	AECOM-Professional Solutions
Mazzola, Carl	Project Enhancement Corporation

Government Agency (3 Votes)

Kazban, Roman	Defense Nuclear Facilities Safety Board
Kotzalas, Margaret	U.S. Nuclear Regulatory Commission
*O'Brien, James (NRNFFCC Chair)	U.S. Department of Energy
*Berg, Lawrence; U.S. Department of Energy	

Individual (4 Votes)

Brault, Jeffery (NRNFFCC Vice Chair)	Individual
Eble, Robert	Individual
Hicks, Jerry	Individual
Massie, Herbert	Individual

National Laboratory/Government Facilities (2 Votes)

Bari, Robert	Brookhaven National Laboratory
Martin, Charles	National Security Technologies

University (1 Vote)

Modarres, Mohammad	University of Maryland
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**shares one vote*

Voting Summary

Architect-Engineer (2 Votes)	14%
Consultant (2 Votes)	14%
Government Agency (3 Votes)	21%
Individual (4 Votes)	29%
National Laboratory/Government Facilities (2 Votes)	14%
University (1 Vote)	7%
TOTAL VOTES (14)	100%

5/15/2019

American Nuclear Society

Research and Advanced Reactors Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (1 Vote)

Peres, Mark	Fluor Corporation
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Government Agency (3 Votes)

*Adams Jr., Alexander	U.S. Nuclear Regulatory Commission
*Mazza, Jan; U.S. Nuclear Regulatory Commission	
Lawson, David	U.S. Department of Energy
Thomas, Newton (RARCC VC & SubC Chair)	National Institute of Standards Technology

Individual (3 Votes)

Grimes, Brian	Individual
Spellman, Donald	Individual
Turk, Richard	Individual

National Laboratory/Government Facilities (2 Votes)

*Flanagan, George (RARCC Chair)	Oak Ridge National Laboratory
*Bevard, Bruce (RARCC VC & Subcommittee Chair); Oak Ridge National Laboratory	
*Linn, Mark; Oak Ridge National Laboratory	
O'Kelly, Sean	Idaho National Laboratory

Owner (2 Votes)

*August, James	Southern Company
*Afzali, Amir; Southern Company	
Grenci, Tony	Salt River Project

University (3 Votes)

Foyto, Leslie	University of Missouri
Memmott, Matthew	Brigham Young University
Reese, Steven	Oregon State University

Vendor (2 Votes)

Blandford, Edward	Kairos Power
Veca, Anthony	General Atomics

**Shares one vote with member(s) from the same company*

Voting Summary

Architect-Engineer (1 Vote)	6%
Government Agency (3 Votes)	19%
Individual (3 Votes)	19%
National Laboratory/Government Facilities (2 Votes)	13%
Owner (2 Votes)	13%
University (3 Votes)	19%
Vendor (2 Votes)	13%
TOTAL VOTES (16)	100%

American Nuclear Society

Safety and Radiological Analyses Consensus Committee

Balance of Interest (June 2019)

Architect-Engineer (2 Votes)

Hulse, Paul (Subcommittee Chair)	Sellafield Ltd.
Jarvis, Julie (SRACC Vice Chair)	Bechtel Nuclear

Consultant (2 Votes)

Gupta, Mukesh	AECOM-Professional Solutions
Rombough, Charles	CTR Technical Services, Inc.

Government Agency (1 Vote)

Palmrose, Donald	U.S. Nuclear Regulatory Commission
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Individual (2 Votes)

Amato, Richard	Individual
Weitzberg, Abraham	Individual

National Laboratory/Government Facilities (3 Votes)

Cokinos, Dimitrios (Subcommittee Chair)	Brookhaven National Laboratory
Dudziak, Donald	Los Alamos National Laboratory
Smetana, Andrew (SRACC Chair)	Savannah River National Laboratory

Society (1 Vote)

Graham, Christopher	HPS Rep. (Employed by Ameren)
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University (2 Votes)

Hertel, Nolan	Georgia Institute of Technology
Sanders, Charlotta (Subcommittee Chair)	Individual

Vendor (1 Vote)

Alpan, F. Arzu	Westinghouse Electric Company, LLC
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Voting Summary




Architect-Engineer (2 Votes)	14%
Consultant (2 Votes)	14%
Government Agency (1 Vote)	7%
Individual (2 Votes)	14%
National Laboratory/Government Facilities (3 Votes)	21%
Society (1 Vote)	7%
University (2 Votes)	14%
Vendor (1 Vote)	7%
TOTAL VOTES (14)	100%

5/28/2019

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

ATTACHMENT 6

A SMART strategic plan consists of goals that are **S**trategic, **M**easurable, **A**ttainable, **R**ealistic and **T**ime-related. This matrix takes each of the Initiatives in the ANS SB Strategic Plan and defines the specific activities that need to be done for each Goal and Objective along with its proposed schedule and responsibility. This is a living document. Updates and comments from Standards Board Members will be solicited and the plan adjusted.

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
Completed  Near Term  Overdue 					
Goal #1 Align Standards Development Pries with Current and Emerging Needs					
A. Evaluate the results of the initial industry priority survey	Standards Mgr	Executive summary issued.		1/2016	1/2016
B. Assign responsibilities to the appropriate consensus committees to address the top ten survey identified high priority standards	Standards Mgr	Issue list of high priority standards with assigned responsibilities. List discussed during 2/12/2016 conference call and published in minutes.		2/29/2016	2/29/2016
C. Develop and implement an approach to collect industry priority needs on an ongoing basis and integrate them into standards committee priorities.	Chair External Communications TG	ANS SC Policy drafted to specify this approach and approved by SB.	1/25/17: With no External TG Chair, there has been no action	2/1/2017	
D. Incorporate risk-informed and performance-based methods in ANS standards, where appropriate, by:					
1. Develop the Risk-Informed Performance-Based Principles and Policy Committee Standards Plan	RP3C Chair	Provide draft of Risk-Informed Performance-Based Principles and Policy Committee Operating Plan for SB approval.	A draft plan was provided for SB ballot. Although not approved the information that was developed during the review process provided valuable input into this matrix.. A separate Operating Plan is no longer required.		8/31/2018
	RP3C Chair	Provide draft ANS Risk Informed and Performance Based Standards Plan (which will provide the approaches and procedures to be used by ANS SC consensus committees, subcommittees and working groups to implement risk informed and performance based principles in a consistent manner) for review & comment prior to use in pilot applications	Jim O'Brien to lead effort; underway, should be complete by Dec 31, 2018. Balloted issued in April 2019. for proposed issue as draft	9/30/2017 9/30/2018 12/31/2018	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
	RP3C Chair	Manage the resolution of comments and send resulting Draft Plan to Standards Manager for issuance for use on two pilot standards.	Jim O'Brien to lead effort	12/1/2017 12/31/2018	
	RP3C Chair	Pilot Plan on two standards	Jim O'Brien to lead effort	3/31/2019	
	RP3C Chair	Incorporate lessons learned from pilots and send to Standards Board for ballot as a new policy or procedure.	Jim O'Brien to lead effort	5/10/2019	
	RP3C Chair	Manage the resolution of comments and send resulting document to Standards Manager for issuance as a policy or procedure.	Jim O'Brien to lead effort	6/30/2019	
2. Develop a Risk-Informed Performance-Based Principles training package for training of ANS Standards Committee members.	RP3C Chair	Develop Risk-Informed and Performance-Based Training Package for SC members and provide to SB for review.	Ed Wallace to lead. To be developed in parallel with procedure finalization	12/1/2017 1/31/2019	
3. Conduct training of consensus committees and working groups.	CC Chairs	Schedule training for CC/WGs as needed, supported by RP3C training resources. CCs and RP3C to coordinate.	Ed Wallace to lead.	3/31/2019	
	RP3C Chair	Conduct Training for all applicable CCs.	??? to lead	6/30/2019	
4. The RP3C will work with each consensus committee to develop a prioritized list and schedule for incorporating risk-informed and performance-based principles into its standards. Collaboratively, they will identify and define any new standards that are related to risk-informed and performance-based principles. Some of such work may already have been assigned to other standards working groups, and so it is important to work with the SB and CCs to identify an appropriate WG lead (and CC) for the standards development with the objective of avoiding duplication.	RP3C Chair CC Chairs	Review ANS standards and narrow the list to 23 potential RP3C standards "Initial Priority List" and send to applicable. CCs review the list and provide their inputs on applicability and schedule for each of the 23 standards.	Completed. Link to spreadsheet with CC evaluations and schedules— ACCESS HERE	9/30/2017	8/20/2018
	CC Chairs	<i>Requested CCs review and confirmation of actions on Phase 1 list of potential RIPB standards and RP3C feedback on insights</i>	<u>CC Response status:</u> ESCC – 3/22/18 FWDCC – Input provided pending LLWRCC – partial	9/30/2018	11/20/2018

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
			information provided 1/22/18; full details remain pending NCSCC – responded N/A 1/30/18 as no NCSCC standards are on the short list. NRNFCC – N/A standards part of RP3C pilot program RARCC – 7/9/18 SRACC – confirmed N/A 1/30/18 as no SRACC standards are on the short list.		
	RP3C Chair	Manage joint discussions of the actions and schedule for the Initial Priority List of approaches and schedule and provide the results to the Standards Board for discussion at a Standards Board meeting. Mange any required interfaces with CCs and WGs. WGs and CC Management are to give this effort priority.	Agreed approaches and schedules with CC chairs to be incorporated into spreadsheet (ACCESS HERE).	4/30/2019	
5. Publishing a Nuclear News Article to inform other members of the Society of the benefits of this risk-informed and performance-based effort	RP3C Chair	<i>Nuclear News (NN)</i> article drafted, approved by SB Chair, and forwarded to <i>NN</i> editor. Via Standards Manager	The article has been completed. Postponed until next issue due to staff transition at NN.	11/1/2017 12/31/2018	
6. Developing presentation materials that can be used to inform other industry groups as to the benefits and use of the ANS Standards Committee risk-informed and performance based standards activities	RP3C Chair	Develop presentation package for use with other industry groups and submit to SB for approval.	To be developed in parallel with plan finalization	3/1/2019	
	RP3C Chair	Contact appropriate organizations to make presentations at NRC RIC, ANS UWC, and owners' groups.		7/1/2018 4/30/2019	
	RP3C Chair	Make presentations at a minimum of 2 groups.		5/31/2019	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
Goal #2: Develop and Maintain High Quality Standards					
A. Enhance the relationships with the ANS Professional Divisions and Technical Groups to assist in populating WGs with expert individuals. (also supports Goal 5)	Internal Communications TG Manager	Issue interface liaisons table between applicable divisions and group and the standards consensus committees.		8/1/2016	6/1/2016
	CC Chairs	Send requests for staffing assistance to ANS Professional Divisions and Technical Groups as needed.	11/2017: ESCC – Done FWDCC - Done LLWRCC - Done NCSCC - Done NRNFCC - Done RARCC - None identified SRACC - Done	Initial requests sent prior to Oct. 2017 meeting. Ongoing	11/1/2017
	Internal Communications TG Manager	Tabulate the summary of the requests made and the results and present to SB.	This item has been replaced by having the CC Chair report the results in their SB reports	NA	
B. Develop and Implement a standards training program for all Standards Committee members to ensure that standards development is consistent with current policies and procedures, thus, producing consistently better quality products in a timelier manner.	Internal Communications TG Manager	Develop initial presentations and post on Workspace.		3/1/2016	3/1/2016
	SB VChair	Assign training instructors.		3/1/2016	3/1/2016
	SB VChair	Prepare training plan.		2/1/2016	2/1/2016
	Standards Mgr	Send out training notices.		3/15/2016	3/15/2016
	Standards Mgr	Complete the initial rounds of training presentations.		6/2/2016	6/2/2016
	SB VChair	Select videos for use in future training presentations.		6/2/2016	6/2/2016
C. Assign a mentor to each new standards working group that is experienced in the use of ANS standard's procedures, policies, glossary and tool kit	CC Chair	Evaluate SubC Chairs for familiarity with toolkit/standards development.	11/2017: ESCC – Done FWDCC - Done LLWRCC - Done NCSCC - Done	5/1/17	5/31/2018

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
			NRNFCC - Done RARCC- Done SRACC - Done		
	CC Chair	Select SubC Chairs and other CC members with respect to their being well versed in toolkit contents and capable of being mentors. Provide mentor list to SB VChair.	11/2017: ESCC – Done FWDCC - Done LLWRCC - Done NCSCC - Done NRNFCC - Done RARCC - Done SRACC - Done	5/1/17	6/12/2018
	CC Chair	In cases where additional assistance is required beyond the SubC Chair, CC should request mentor from SB VChair.	None identified yet	Chairs have been advised.	11/1/2017
Goal #3: Improve Standards Development Production and Efficiency					
A. Expedite development of high-priority standards by improving Standards Board and consensus committee oversight using achievable project plans and definitive schedules with assigned milestones throughout the standards development cycle.	SB VChair	Draft project plan development policy.		10/1/2016	Approved by SB 9/6/16. Project plan w/b added to CC procedures as Appendix K.
	SB VChair	Draft project plan development policy.		10/1/2016	Approved by SB 9/6/16. Project plan w/b added to CC procedures as Appendix K.
	CC Chairs	Develop project plans for 6 total standards from all CCs and submit to consensus committees. This is the total goal for all CCs not 6 by each CC.	6 plans completed: 2.22, 2.27, 54.1, 2.25, 2.29, 3.13 and the JCNRM milestone schedule	6/12/2018	Approved by SB 9/6/16. Project plan w/b added to CC procedures as

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
					Appendix K.
B. Complete the Standards Volunteer Database to facilitate recruiting personnel for Standards Committee activities (also supports Goal #5)	ANS IT Dept.	ANS IT complete ANS SC Volunteer Database in accordance with the SB specification.	It will now not be able to start any work on the volunteer database until the redesign is completed which is planned for 12/2019. .	11/1/2017 11/17/2018 6/20/2019 6/5/2020 12/20/2019	
	SB/ ANS IT Dept.	SB approves database submitted by ANS IT department.		2/1/2018 2/1/2019 9/20/2019 9/30/2020	
C. Assist the consensus committees in obtaining required human resources using outreach initiatives	Standards Mgr	Develop staffing approach guideline and post to website toolkit.		12/1/2016	Completed by S. Stamm and posted to the toolkit on 8/22/16 here .
D. Maximize use of the ANS Standards Workspace and other communications vehicles to eliminate the need for travel and face-to-face meetings to the maximum extent possible	CC Chairs	Encourage WGs and SubCs to use Workspace and other online and electronic tools to eliminate face-to-face meetings	Procedure issued. CCs have discussed with SubC /Chairs	Done	April 2017
	CC Chairs	CC chairs to submit a confirmation email that this has been discussed with SubCs and WGs.	11/2017: ESCC – Done FWDCC – Done LLWRCC – Done NCSCC – Done NRNFCC – Done RARCC – Done SRACC -- Done	5/1/2017	
E. Acquire funding (e.g., grants) to support the development of high-priority standards on an expedited basis.	CC Chairs/ Priority TG Chair	High priority standards list submitted by all CCs which identify high priority standards planned for near future. Priorities should be based on expected government and industry need.	11/2017: ESCC – ANS-2.8; ANS 2.26 (12/31/17) FWDCC -- ?? LWRCC -- ?? NCSCC -- None NRNFCC – None RARCC – ANS 20.1,	Ongoing Cyber Security	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
			20.2, 30.1 and 30.2 SRACC – None JCNRM – Done		
	SB VChair	Work with CCs to assess each effort, select most appropriate standards, prepare and submit proposals. Submit 1 st proposal.	Nov 2017- Agreed to proactively coordinate with NRC and DOE for early identification of potential opportunities.	6/1/2017 Ongoing	
F. Streamline the reaffirmation process to reduce the number of delinquent standards by establishing a systematic review of delinquent standards to start no later than the 4-year mark. This can be accomplished through the following mechanisms: 1. Automatically sending out a Reaffirmation Form to the WG chair with copies to subcommittee chair and consensus committee chair 2. Automate subcommittee and consensus committee approvals of reaffirmation, withdrawal, and revision recommendations 3. Establishing an ANS Professional Division and Technical Group sponsorship program to aid in review of associated delinquent standards with and without active working groups	Standards Mgr	Submit Reaffirmation Forms to WG/SubC Chairs for all standards approaching the 4-year mark.		Ongoing Starting 4/1/2016	Ongoing
	Standards Mgr	Issue list of all standards over 4 year since issuance showing the issuance of Reaffirmation Forms to the WG chairs.		11/1/2016	Ongoing
	Standards Mgr	Action items for reaffirmation setup in Workspace with automatic reminders.		11/1/2016	The report was sent 9/15/16 and will be updated and resent 12/15/16
	Internal Communications Group Manager	Send list of delinquent standards to PDs.		12/1/2016	Completed
	Internal Communications Group Manager	Issue plan and approach to each Professional Division and Technical Group as applicable and obtain indication of acceptance.	COMPLETE	5/1/2017	11/2017
G. Develop subcommittee/consensus committee metrics to identify opportunities for improvements	Policy TG Chair	Identify CC metrics, review with CC Chairs.		10/1/2016	Changed to done!
	CC Chairs	Each CC fill in annual tabulated metric performance.	COMPLETE	5/1/2017	4/1/2017
	Policy TG Chair	Evaluate metric results.		3/1/2018	2/26/1/2018
	CC Chair & Policy TG Chair	Provide recommendations for changes to improve performance.	11/2017: ESCC – None	6/1/2018	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
			FWDCC – ?? LLWRCC – ?? NCSCC – ?? NRNFCC – ?? RARCC – ?? SRACC – ??		
Goal #4: Expand ANS Awareness and External Outreach					
A. Use periodic survey methods to gain feedback from industry, federal and state agencies; provide feedback to survey responders	SB VChair	Submit draft of survey comment responses to SB Chair for approval.		8/1/2016	7/26/16
	SB Chair	Send responses to commenters.		10/1/2016	Done
	SB Chair	Determine survey frequency for future ANS and industry surveys. (Work with NEI on developing recommendations)	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken.	10/1/2016	
B. Establish periodic leadership meetings with regulatory agencies, owner's groups and industry executives to align needs, and build support for development and greater use	Chair External Communications TG	Discuss communications approach with each of the applicable organizations (industry, federal, and state agencies). Setup regular schedule for discussions.		11/1/2018	
	Chair External Communications TG	Develop and issue master SC external communications plan.		5/1/2017	
C. Establish an ANS Professional Division sponsorship program to broaden input in setting standards priority	Chair Internal Communications TG	Issue plan and approach to each Professional Division and Technical Group as applicable and obtain indication of acceptance.	"Plan" was provided to liaisons. Confirmation pending	10/1/2016	6/2017
D. Seek liaison arrangements with relevant SDOs, where needed, to improve efficiency, effectiveness and consistency of standards across the industry where overlapping or interlocutory standards arise	Chair External Communications TG	Prepare a liaison list identifying each desired liaison interface, the liaison approach, and the implementation status.	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken.	10/1/2016	3/1/2017
	Chair External Communications TG	Implement all liaisons on the Liaison Interface List.	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken	10/1/2016	11/2017

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
E. Establish an approach to keep industry and trade groups advised of approved standards and in-progress standards in their areas of interest	Chair External Communications TG	Issue an Industry and Trade Group Interface Plan.	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken.	10/1/2016	
	Chair External Communications TG	Complete interface plan implementation.		6/1/2018	
F. Identify key international organizations that can contribute to specific ANS standards development projects, including work group participation, review of draft standards, and providing input into standards prioritization.	Chair External Communications TG	Develop listing of key international organization, key contacts, and the desired interfaces we would like to develop.		6/1/2017	
	Chair External Communications TG	Send invitation letter to each of the interface contacts. Follow-up as needed		10/1/2017	
	Chair External Communications TG	Provide completion report to SB.		10/1/2018	
G. Establish a standards educational program for non-Standards Committee members to increase their knowledge of: 1. what consensus standards are, and are not; 2. benefit of consensus standards to the industry; 3. advantages to companies, federal and state agencies, and individuals of supporting standards development	Chair External Communications TG	Develop presentation package.		6/1/2016	6/1/2016
	Chair External Communications TG	Develop invitation list for indoctrination sessions.		8/1/2016	All ANS members
	Chair External Communications TG	Send indoctrination session invitations.		10/1/2016	sent via Jan 2017 N&D, member blast, and ANS home page.
	Chair External Communications TG	Conduct 1 st indoctrination session.		2/1/2017	1/31/2017
	Chair External Communications TG	Complete sessions.		11/1/2017	
H. Contact leading nuclear companies to determine if they issue regular newsletters and offer to provide standards updates for inclusion.	Chair External Communications TG	Develop list of companies and contacts.	1/25/17: Members recognized that the EC TG Chair position was	11/1/2016	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
			open and no action has been taken.		
	Chair External Communications TG	Develop short form newsletter.	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken.	11/1/2016	
	Chair External Communications TG	Make contact with 30% and report to SB.	1/25/17: Members recognized that the EC TG Chair position was open and no action has been taken.	4/1/2017	
	Chair External Communications TG	Make contact with 100% and report to SB.		11/1/2017	
I. Evaluate the cost effectiveness of a fee based training program for newly issued/ revised standards.	SB VChair	Prepare draft evaluation plan.		8/1/2016	7/26/2106
	SB VChair	Meet with ANS Membership & Marketing Director and revise plan as appropriate.		8/3/2016	Several calls held; last one on 10/5/16.
	SB VChair	Complete evaluation and send report to SB Chair for discussion with BOD.		3/1/2017	Completed Jan 2017 – Recommended ANS-2.8 & ANS-3.5 once approved.
	Standards Mgr	Send owners' groups semi-annual updates on applicable standards activities	Industry newsletter created and provided to Jim Riley as POC for utilities on 10/18/16. Industry newsletter posted here .	Ongoing	

SMART Matrix for ANS SC Strategic Plan – Updated 5/6/2019

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
Goal #5: Improve Industry Representation and Sustainability of Working Groups, Subcommittees, and Consensus Committees					
A. Approach owners' groups and industry organizations soliciting member participation in ANS standards	Standards Mgr	Send owners' groups semi-annual updates on applicable standards activities	Industry newsletter created and provided to Jim Riley as POC for utilities on 10/18/16. Industry newsletter posted here .	Ongoing	
	Standards Mgr	Request staffing assistance for select standards.	An updated list of volunteer needs was prepared and posted to the ANS website 8-11/16, announced in Sept. 2016 N&D and distributed through ANS Collaborate to PDs.	Ongoing	
B. Send notices to ANS Student Section members, Young Member Group, Professional Division members, and North American-Young Generation Nuclear members to provide opportunities to participate in ANS standards	Standards Mgr	Send notices biannually.	Broadcast sent to ANS Student Section 9/15/16.	Ongoing Biannually	
		(See Goal #1)			
C. Enhance the relationships with the ANS Professional Divisions and Technical Groups to assist in populating WGs with expert individuals.(See Goal #1)	Standards Mgr	Advertise upcoming standards efforts with requests for support using <i>Nuclear News</i> , Nuclear Café, and ANS Linked-In Group.	Volunteer needs section added to <i>Nuclear News</i> . List of volunteer needs updated and posted to web and announced in N&D.	Ongoing	Standards Mgr
D. Advertise upcoming standards efforts with requests for support using Nuclear News, Nuclear Café, and ANS Linked-In Group		See goal # 3			
E. ANS IT Department to complete the Standards Volunteer Database, and make it available to subcommittee and consensus committee chairs (See Goal #3)	SB VChair	Develop standard report and provide to CC Chairs.	1/25/17: Stamm confirmed that this action will be completed shortly.	6/11/17	6/11/17
F. Monitor consensus committee and working group success in staffing and recruitment and share best practices across all consensus committees	CC Chairs	Changed to annual report based on performance data provided to the CC Chairs.		6/30/2018+ Ongoing	
	SB VChair	Evaluate results of CC reports at SB meeting		6/30/2018+ Ongoing	

2018/2017 All CC Performance Metrics Summary

Strategic Plan Activity 3.G

Performance Metric	Good (Green)	Fair (Yellow)	Poor (Red)	ESCC	FWDCC	LLWRCC	NCSCC	NRNFCC	RARCC	SRACC
CC Meeting Attendance (Calendar year)*	>75%	55% to 74%	<55%	64.3%/63.2% (1 physical meeting & 2 calls)	81.8%/77.8% (1 physical meeting & 1 call)	58.8%/58.6% (1 physical meeting & 3 calls)	77.1%/71.4% (1 meeting & 1 call)	56.3%/71.4% (1 meeting & 1 call)	75%/68.8% (1 meeting)	57.1%/57.1% (1 meeting)
Number of new active standards initiated (% increase in assigned standards)	>5%	2% to 5%	<2%	7.7%/15.4%	0%/0%	7.7%/15.3%	0%/0%	0%/0%	0%/0%	4.8%/0%
Number of standards greater than 8 years since last issuance	0%	0.1% to 5%	>5%	0%/0%	0%/0%	7.7%/15.3%	0%/0%	0%/0%	0%/0%	0%/0%
Average CC member ballot participation	>90%	80% to 90%	<80%	88.6%/78%	86.4%/84%	81.6%/84.5%	90.0%/88.9%	64.8%/71.4%	87.5%/84.6%	77.8%/74.5%
Average time to staff WGs and draft new standards	<24 months	24 to 36 months	> 36 months	16 mos/NA EXCELLENT!	NA/NA	NA/NA	NA/NA	NA/NA	+8 years/NA	NA/NA
Average ballot comment resolution time <50 pgs/ <50 cmts (L1) 50 to 100 pgs/ <100 cmts (L2) >100 pgs/ >100 cmts (L3)	< 4 wks <6 wks <8wks	4 to 6 wks 6 to 8 wks 8 to 12 wks	>6 wks >8 wks > 12 wks	9 weeks (L1)/ 18d	NA/5.5m	+30m/+ 12m	+8m/16wk	NA/NA	+9 m/ NA	NA/5wk
Average time to respond to an inquiry	< 4 months	4 to 8 months	>8 months	NA/ 3.7m	NA/26m	6.5m/ NA	+11m/NA	NA/NA	NA/NA	3.5m/3m

*The meeting participation metric for Good, Fair, and Poor was changed by motion at the 6/19/18 SB meeting. Metric used for 2016 & 2017 was Good: >80%; Fair: 50%-79%; and Poor: <50%.

C5 POLICY ON THE DEVELOPMENT OF GUIDANCE STANDARDSDOCUMENTS

1 BACKGROUND

The accredited rules and procedures of the ANS Standards Committee specify that standards developed by the committee are intended to become American National Standards. Standards developed by the ANS Standards Committee are criteria-based, containing specific requirements to be implemented by the user. (Many of these standards also contain guidance in the text or in appendices.)

2 POLICY

The ANS Standards Committee may also develop guidance document~~enets-standards~~ that do not contain requirements but provide valuable information ~~for the implementation of criteria contained in American National Standards~~. These guidance document~~standards~~ shall be developed using the accredited rules and procedures of the ANS Standards Committee, including those related to due process and consensus.

Guidance standards~~documents~~ shall be developed only with the agreement (that is, formal vote for approval) of the responsible consensus committee and the Standards Board. In addition, a Project Initiation Notification System form, or equivalent, shall be prepared for review and comment by the consensus committee and by the Standards Board.

Guidance standards~~documents~~ shall not be submitted to the American National Standards Institute for accreditation as American National Standards but shall be certified by the Standards Board as having followed due process and consensus procedures. Guidance standards~~documents~~ shall be issued as copyrighted ANS standardsdocuments.

This policy may be applied by any ANS consensus committee.

Because this policy establishes a process for the development and issuance of ANS guidance standardsdocuments, it is not addressed in the accredited rules and procedures.

JFM, 9/22/04
(JFM revised, 12/16/04)
(JFM revised, 8/17/05)
(SAA revised, 4/25/19)

SB Combined Comments on Change to Policy on Guidance Standards

First	Last	Subject	Comment
Steven	Stamm	Revision of ANS Procedure on	<p>There is no reason to change this from standards to guidance documents.</p> <p>If the ANS Standards Committee is going to issue a document for industry use, it should be a standard.</p> <p>We should not be issuing guidance documents to the industry (no matter what they are called)Â plus standards on the same topic from different sections of our organization.</p> <p>The June 2018 minutes indicated that ASME and ANS Board approvals would be obtained before any work was done on any of these documents.</p>
William	Turkowski	add an s to document	2 Policy, second sentence, add an s to document
Andrew	Sowder	General comment	<p>I agree that differentiating guidance documents from standards is worthwhile. Having "standards" issued by ANS that aren't ANSI accredited risks diluting the Standards brand and confusing users. So the differentiation is warranted.</p> <p>However, I would also caution that issuance of guidance documents should be done sparingly and with cognizance of possible conflicts with many other entities who routinely develop and publish guidance documents on the same topics (such as NEI, EPRI, INPO).</p>
Larry	Wetzel	Concept	<p>I agree with Steve that the purpose of the Standards Board is standards. We should not be issuing guidance documents or other non-standards documents.</p>

Pat Schroeder

From: Patricia Schroeder via American Nuclear Society <Mail@ConnectedCommunity.org>
Sent: Sunday, March 17, 2019 9:10 AM
To: Pat Schroeder
Subject: Standards Board : ANSI ISO Council and ANSI ISO Forum - For Your Comments by Friday, April 12, 2019

Standards Board


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Mar 17, 2019 10:10 AM |  [view attached](#)
[Patricia Schroeder](#)

[← Link to ISO Guide](#)

Dear Standards Board Members,

The below message and attachment is forwarded to you at the request of Prasad Kadambi. He asked that the message be forwarded because he feels that ANS can increase the value of our standards by being able to say that we will follow the ISO guidelines on climate change when proposing and revising our standards. An example that comes to mind is the Ultimate Heat Sink standard [ANSI/ANS-2.21-2012 (R2016)] now being revised.

Regards,
Pat

----- Forwarded message -----

From: **ISOT** <ISOT@ansi.org>
Date: Thu, Mar 14, 2019 at 1:08 PM
Subject: ANSI ISO Council and ANSI ISO Forum - FOR YOUR COMMENTS BY FRIDAY, APRIL 12, 2019
To: ISOT <ISOT@ansi.org>

To:

ANSI ISO Forum (AIF) Members

From: Steven P. Cornish

ANSI Senior Director – International Policy and Strategy

The ISO/TMB Climate Change Coordination Task Force (CCC TF 7) has submitted a draft *ISO Guide 84 (Guidelines for addressing climate change in standards)* to the ISO/TMB.

In 2016, the Climate Change Coordination TF was set up by the ISO/TMB to coordinate standardization work related to climate change. Part of the TF's mandate is to develop a new guide on how to address aspects of climate change in all ISO standards. ISO Guide 84 is intended to encourage writers of ISO deliverables to include provisions to address climate change threats and opportunities. It should enable committees to determine if the standard under consideration should take into account aspects, issues, risks and/or opportunities associated with climate change and provide a systematic approach to address climate change issues and opportunities in a coherent and consistent manner. The Guide will also help in promoting consistency and compatibility among standards that directly or indirectly address climate change and their wider uptake in support of sustainability.

IC and AIF members are invited to submit their comments on the content of the draft Guide and on whether or not it should be approved by the ISO/TMB. Please respond by return email to Steven Cornish (scornish@ansi.org) by close of business on Friday, April 12, 2019.

Following April 12, all input will be compiled and considered in the development of a recommended ANSI position and set of comments to be approved by the AIC for submittal to ISO. Please note that this round of voting and commenting is to the members of the ISO/TMB only; a second round of voting and commenting by all ISO members will follow after resolution of comments from this round.

Thank you.

Patricia Schroeder
American Nuclear Society
La Grange Park IL
(708)579-8269

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Liaisons to ANS Professional Divisions— PD Liaisons Updated 11/30/18

ANS Professional Division	Name of PD Liaison	Email of PD Liaison	Name of PD Chair	Email of PD Chair	Associated Consensus Committee (see acronym key below)	Name of ANS Standards Committee Liaison	Email of ANS Standards Comm. Liaison or interface
Accelerator Applications	Charles T. Kelsey	ckelsey@lanl.gov	Reginald Ronningen	ronninge@msu.edu	NRNFCC	James O'Brien	James.O'Brien@hq.doe.gov
Aerospace Nuclear Science & Technology	Andy Prichard	Andrew.Prichard@pnnl.gov	Jeffrey King	kingjc@mines.edu	*		
Biology & Medicine	Stephen LaMont	lamont@lanl.gov	Stephen LaMont	lamont@lanl.gov	ESCC	Carl Mazzola	cmazzola@projectenhancement.com
					ANS-3.4 (under LLWRCC)	William Reuland	wreuland@aol.com
Decommissioning & Environmental Sciences	Dustin Miller	dmiller@chaseenv.com	Dustin Miller	dmiller@chaseenv.com	FWDC	David Hillyer	dwhillyer@hotmail.com
					ESCC	Carl Mazzola	cmazzola@projectenhancement.com
Education, Training, & Workspace Development	Drew Thomas	drew.thomas@inl.gov	Jane LeClair	leclair.jane@gmail.com	LLWRCC	Gene Carpenter	Gene.Carpenter@hq.doe.gov
					NCSCC	John Miller	millerj@sandia.gov
Fuel Cycle & Waste Management	Jeffery R. Brault	jeff_brault@yahoo.com	Jean Francois (Jef) Lucchini	lucchinijf@pvtnetworks.net	FWDC	Jeffery Brault	jeff_brault@yahoo.com
Fusion Energy	Leigh Winfrey	winfrey@mse.ufl.edu	Arnold Lumsdaine	lumsdainea@ornl.gov	RARCC	George Flanagan	flanagangf@ornl.gov
Human Factors, Instrumentation & Controls	Sacit Cetiner	cetinerms@ornl.gov	Raymond Herb	rherb@southernco.com	LLWRCC	Pranab K. Guha	pranab.guha@hq.doe.gov
Isotopes & Radiation	Sam Glover (PD chair to serve as temp liaison)	glover.14@osu.edu	Sam Glover	glover.14@osu.edu	SRACC	Charlotta Sanders	sander59@unlv.nevada.edu
Materials Science & Technology	Troy Munro	troy.munro@byu.edu	Rita Baranwal	rita.baranwal@inl.gov	*		
Mathematics & Computation	Paul Hulse	paul.hulse@sellafieldsites.com	Dmitriy Anistratov	anistratov@ncsu.edu	SRACC	Paul Hulse	paul.hulse@sellafieldsites.com
Nuclear Criticality Safety**	Kevin Reynolds	kevin.reynolds@cns.doe.gov	Kevin Reynolds	kevin.reynolds@cns.doe.gov	NCSCC	Doug Bowen	bowendg@ornl.gov
	Ma Zhegang	zhegang.ma@inl.gov			RARCC	George Flanagan	flanagangf@ornl.gov
Nuclear Installations Safety	Kevin O'Kula	kevin.okula@aeom.com	Matthew Denman	denman@kairopower.com	NRNFCC	James O'Brien	James.O'Brien@hq.doe.gov
	Matthew Denman	mrdenma@sandia.gov			JCNRM	Robert Budnitz	budnitz@pacbell.net
Nuclear Nonproliferation Policy	Kelsey Amundson	kamundson5@gmail.com	Rian Bahrn	bahrn@gmail.com	ANS-60.1 (under LLWRCC)	Margaret Harding	margaret@4factorconsulting.com
Operations & Power	Scott Ackerman	scott_ackerman@att.net	Gale Hauck	hauckge@westinghouse.com	LLWRCC	Gene Carpenter	Gene.Carpenter@hq.doe.gov
Radiation Protection & Shielding	Shaheen Dewji (PD chair to serve as temp liaison until new liaison appointed)	shaheendewjians@gmail.com	Shaheen Dewji	shaheendewjians@gmail.com	SRACC	Charlotta Sanders	sander59@unlv.nevada.edu
Reactor Physics	Dimitrios Cokinos	cokinos@bnl.gov	Todd Palmer	palmerts@ne.orst.edu	SRACC	Dimitrios Cokinos	cokinos@bnl.gov

* Contingent liaison; which would be activated if and when needed

**NOTE: PD chair = PD liaison

PDC Chair Thomas Remick thomas.remick@aps.com
PDC Vice Chair Hans Gougar hans.gougar@inl.gov
PD Liaison Prgm Coordinator William Turkowski turkowwm@westinghouse.com

Consensus Committee Acronym Key	
Environmental and Siting Consensus Committee (ESCC)	Nuclear Criticality Safety Consensus Committee (NCSCC)
Fuel, Waste, and Decommissioning Consensus Committee (FWDC)	Nonreactor Nuclear Facilities Consensus Committee (NRNFCC)
Joint Committee on Nuclear Risk Management (JCNRM)	Research and Advanced Reactors Consensus Committee (RARCC)
Large Light Water Reactor Consensus Committee (LLWRCC)	Safety and Radiological Analyses Consensus Committee (SRACC)

Current Associate Member List (5/29/19)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Status
1	Margaret Kurtts	Student Section Solicitation 2014	8/12/2014	30.2	RARCC	2/27/19: Sent direct email to Kurtts to apprise that work on 30.2 is expected to be restarted in summer; also provided opportunity for reassignment. Reassignment not requested.
2	Dylan Robideaux	Student Section Solicitation 2014	7/24/2014	8.7	NCSCC	2/26/19: Sent email to Robideaux to let him know that work to begin soon. Also provided option to be reassigned. Reassignment not requested.
3	Dong (Allen) Wang	random	7/1/2014	3.5.1	LLWRCC	2/26/19: Reassigned to ANS-3.5.1. 12/12/2018: ANS-3.5 WGC Florence stated that he was not active on 3.5 and was removed.
4	Stanley (Stan) Tackett	Student Section Solicitation 2014	8/12/2014	6.4.2	SRACC	5/29/19: Rec'd bounce notice from Tackett; found on LinkedIn and attempted contact this way. 5/28/19: SubC Chair suggested to offer reassignment. 5/17/19: Numerous emails sent to WGC S. Nathan w/o response. RARCC & SubC chair contacted for direction.
5	Matthew Hertel	Random	3/31/2015	59.3 58.9-No WGC	LLWRCC	2/28/19: Hertel was contacted and stated that he is very busy right now and he is okay with 59.3 being slow and remaining on 58.9 until chair found. He will let me know if he wants reassignment.
6	Theresa Cutler	Recruited by ANS-8.23 WGC/Baker	10/24/2015	8.1	NCSCC	***UPGRADED TO FULL MEMBER ON 8.3, 8.20, 8.26, 8.23. STILL AsM on ANS-8.10.*** 5/8/19: 8.10 WGC A. Pichard stated that the WG has not been active so there has been no way to contribute. Standard is now 5 years old and due for maintenance. A reaffirmation will be sought before a revision is started.
7	Nima Fathi	YMG Solicitation 2015	5/13/17 placed on WG 11/3/2015	10.4	SRACC	5/6/19: Contact was made with Fathi to confirm interest; interest was confirmed and suggestions provided on how to participate. 4/18/19: 10.4 WGC R. Jones said that he has not been active but does not want removed.
8	Paul Romano	YMG Solicitation 2015	5/13/17 assigned to WG 11/11/2015	10.4	SRACC	4/18/19: 10.4 WGC R. Jones confirmed that Romano is participating but not sufficient for full membership.
9	Jeremy Gustafson	YMG Solicitation 2015	11/1/2015	56.8	LLWRCC	***UPGRADE TO FULL MEMBERSHIP PENDING*** 2/26/19: 56.8 WGC J. Glover confirmed active participation. Draft is almost ready for WG ballot. He plans to upgrade Gustafson to full member after vote.
10	Enerel Munkhzul	YMG Solicitation 2015	1/15/2016	30.2	RARCC	2/27/19: Sent direct email to Munkhzul to inform that work on 30.2 w/start in summer; also provided opportunity for reassignment.
11	Blaine Rice	Invited by J. Baker	10/1/2015	8.23	NCSCC	2/8/19: 8.23 WGC J. Baker stated that he had hoped for better participation from him. Currently not a candidate for full membership.
12	Ning Zhang	random	2014	8.1	NCSCC	***FULL MEMBER ON 8.15*** 5/8/19: 8.1 WGC. N Brown stated that Zhang was active initially but has not been active lately. Not eligible for full membership.
13	Steven Thompson	random	6/20/16	19.10	SRACC	5/7/19 & 5/27/19: sent email to 19.10 WGC A. Haghighat for feedback and possible upgrade to full member.
14	Amir Bahadori	random	5/27/2016	6.4.2	SRACC	5/28/19: Bahadori responded that he is still interested in 6.4.2 & would also be open to additional opportunities in radiation shielding. Currently working on additional placement. 5/27/19: SubC Chair suggested to contact with offer of reassignment. 5/17/19: Numerous emails sent to WGC S. Nathan w/o response. RARCC & SubC chairs contacted for direction.
15	Matthew Chapa	random	10/11/2016	8.19	NCSCC	4/18/19: 8.19 WGC J. Miller responded that group has not been active since standard last approved in 2014. A revision will be initiated once the reaffirmation (in process) has been approved.

Current Associate Member List (5/29/19)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Status
16	Chelsea Gunter	Feb 2017 NSN Brief	2/16/2017	57.11	NRNFCC	***FULL MEMBERSHIP PENDING*** 5/8/19 & 5/21/19 (reminder): 57.11 WGC R. Eble confirmed that Gunter has been active; he stated that he will contact her and see if she is interested in full membership.
17	Charles Cohen	NN	3/12/2017	2.18	ESCC	***REASSIGNMENT PENDING*** 5/29/19: Cohen responded with request for reassignment to computational project. SRACC org chart sent for consideration. 5/27/19: With no response from 2.18 WGC K. Ng and no known activity, ESCC Chair suggested that Cohen be contacted with an offer of reassignment.
18	R. Patrick White	responded to N&D call out for volunteers for 30.3	7/21/2017	30.3	LLWRCC	2/26/19: 30.3 WGC K. Welter confirmed that White is engaging but has not been able to make much of a contribution as he is just getting started.
19	Kelsey Amundson	random	6/30/2017	8.20 8.19	NCSCC	***UPGRADED TO FULL MEMBER ON 8.26*** 4/18/19: 8.20 WGC D. Hill recognized good participation but would like to hold off on upgrading membership possibly for a year. 4/18/19: 8.19 WGC J. Miller stated that group has not been active since standard last issued in 2014. A reaffirmation is in process; revision to be initiated once reaffirmation approved.
20	Timothy Crook	random	6/8/2017	20.2	RARCC	5/7/19 & 5/27/19 (reminder): Contacted 20.2 WGC D. Holcomb for feedback on participation.
21	Vaibhav Yadav	YMG Solicitation 2017	10/4/2017	LPSD WG	JCNRM	5/8/19: LPSD WGC J. Li confirmed that Yadav has participated by commenting but has not participated in meetings. Additionally, Li stated that his interest in project was recently reconfirmed.
22	Arielle Miller	submitted new VF after attending NCS Std Forum @ 2017 Winter Meeting	11/2/2017	8.12 '8.1	NCSCC	*** FULL MEMBER ON 57.11*** ***FULL MEMBERSHIP PENDING ON 8.12*** 5/28/19: 8.12 WGC C. Tripp confirmed active participation; Miller will be contacted w/offer of full membership. 5/7/19: 8.1 WGC N. Brown responded that he'd like to see more participation on 8.1 before upgrading to full membership.
23	Katherine McCurry (Steddenbenz)	random	8.12	8.12	NCSCC	***FULL MEMBERSHIP PENDING ON 8.12*** 5/28/19: 8.12 WGC C. Tripp confirmed active participation; McCurry will be contacted w/offer of full membership.
24	Travis Wilson	random	9/26/17 & resubmitted 12/20/2017 by M. Crouse	8.22 '8.7	NCSCC	2/27/19: Neither project has been active but revisions are being initiated now. There has been no opportunity for Wilson to contribute. Wilson was informed that projects will be initiated, and he confirmed that he remains interested.
25	Quentin Newell	random	1/23/2017	8.1 '8.12	NCSCC	5/29/19: 8.12 WGC C. Tripp recognized some participation from Newell. Better participation needed before consideration as full member. 5/7/19: 8.1 WGC N. Brown would like to see more participation on 8.1 before upgrading to full membership.
26	Konner Casanova	random	9/21/2017	8.23	NCSCC	***UPGRADED TO FULL MEMBER ON 8.3*** 2/8/19: 8.23 WGC J. Baker stated that he had hoped for better participation from him. Not a candidate for full membership on 8.23.
27	Austin McGee	random	11/15/2017	8.3 '8.17	NCSCC	5/29/19: 8.17 WGC E. Saylor stated WG has not been active so no way to participate; RF to be processed. 5/8/19: 8.3 WGC J. Hicks said McGee has not been very active; email sent to McGee to see if he remains interested.

Current Associate Member List (5/29/19)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Status
28	Jennifer Lyons	random	5/1/2018	8.19	NCSCC	4/18/19: 8.19 WGC J. Miller responded that the group has not been active since standard last approved in 2014. A revision will be initiated once the reaffirmation (in process) has been approved.
29	Kurt Harris	Random	7/20/2018	20.2	RARCC	5/7/19 & 5/27/19 (reminder): Contacted 20.2 WGC D. Holcomb for feedback on participation.
30	Brandon Chisholm	Random	8/20/2018	20.2	RARCC	5/7/19 & 5/27/19 (reminder): Contacted 20.2 WGC D. Holcomb for feedback on participation.
31	Hannah Morbach	Random	9/7/2018	8.3	NCSCC	5/7/19: 8.3 WGC J. Hicks confirmed Morbach's participation but too soon to consider eligibility.
32	Joshua Kane Halsted	2018 Student Broadcast	9/28/2018	15.22	RARCC	5/8/19: 15.22 WGC D. Cronin said group has not been very active so he has not had chance to contribute; should have chance soon. Message sent to Halsted to let him know.
33	Jason M. Crye, PhD	Suggestion from D. Bowen	9/5/2018	8.10	NCSCC	5/8/19: 8.10 WGC A. Prichard stated that group hasn't really be active. He plans to process a reaffirmation and then initiate the next revision. Group should be active very soon.
34	Kristina Spencer, PhD	Suggested during course at UofNM	9/21/2018	8.17	NCSCC	5/29/19: 8.17 WGC E. Saylor stated WG has not been active so no way to participate; RF to be processed.
35	Shawn Henderson	co	11/19/2018	8.24	NCSCC	11/19/18: Accepted to 8.24 by Wetzel; Wetzel talked to Henderson and Henderson was made aware that project not currently active as revision just approved (2017).
36	Erik Slobe	random	1/4/2019	60.1	LLWRCC	1/22/19: Placed on 60.1 WG.
37	William ("Will") John Zywiec	random	1/24/2019	8.3	NCSCC	5/7/19: 8.3 WGC J. Hicks confirmed participation but too soon to consider upgrading.
38	Showq Ali Y Sama	Saw on our website	5/2/2019	57.9	FWDCC	5/4/19: Placed on 57.9
39	Gary Ly	J. Miller/SNL recommended	3/28/2019	8.19	NCSCC	5/16/19: Ly has years of experience but new to NCS. 8.19 WGC J. Miller talked to Ly. Decision made to add as AsM on expedited schedule for full membership.
40	Izabela Gutowska, PhD	saw notice in NN	5/20/2019	53.1	RARCC	5/24/19: Placed on 53.1.

Upgraded Associate Member List (5/29/19)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Upgrade Date/Notes
1	Mihai Diaconeasa	Random	5/7/2014	30.1 2.34	RARCC ESCC	3/19/2019: upgraded on both WGs
2	Shilp Vasavada	NAYGM 2015 solicitation	11/18/2015	3.13 2.26	LLWRCC ESCC	3/21/2019: w/new job @ NRC; resigned from 3.13. 1/22/19: Accepted to ANS-2.26 as full member.
3	Kaushik Banerjee	YMG Solicitation 2015	11/20/2015	19.6.1	SRACC	5/11/2019
4	Tracy Stover	Random	11/3/2015	8.12	NCSCC	6/15/2017
5	Evan Beese	YMG Solicitation 2015	11/1/2015	15.1	RARCC	5/12/2019
6	Scott Finrock	Invited by L. Wetzel to join 8.24 as assoc member; 6-2015.			NCSCC	8/9/2018
7	Brandon O'Donnell	Invited by J. Baker	10/1/2015	8.23	NCSCC	6/15/2017
8	Cheri Paugh	random	11/2/2017	58.2	LLWRCC	7/24/2018
9	Joshua Marshall	random	6/29/2016	8.1	NCSCC	5/7/2019

Resigned/Lost Associate Member List (Updated 5/29/19)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Tracking
1	Chelsea Sutton (Maiden Name: Weaver)	Not sure but on 8.3 since 2014	1/2014	8.3	NCSCC	RESIGNED 4/25/17: Resigned from as no longer in NCS. Currently works in weapon systems surveillance.
2	Chelsea Collins	Student Section Solicitation 2014	8/13/2014	8.3	NCSCC	RESIGNED 3/26/16: Resigned; no longer interested.
3	Joseph (Joe) Kopacz	Student Section Solicitation 2014	8/12/2014	3.13	LLWRCC	DROPPED 4/5/16: Dropped due to no participation and no response to numerous emails.
4	Cailyn Ludwig	Student Section Solicitation 2014	8/12/2014	3.14	NRNFCC	DROPPED 2/26/19: Dropped due to no participation and no response; email bounced.
5	Benjamin (Ben) Prewitt	Student Section Solicitation 2014	8/12/2014	20.1	RARCC	DROPPED 2/26/19: Project terminated indefinitely. Did not respond to multiple emails with offer of reassignment.
6	Manit Shah	Student Section Solicitation 2014	8/12/2014	6.4.3, (past AsM of 57.2 & 57.3)	SRACC	RESIGNED 3/1/19: Very busy with new new job. May reach out for placement in future.
7	Manish Sharma	Student Section Solicitation 2014	8/12/2014	6.4.3	SRACC	DROPPED 5/1/19: Dropped due to no response to multiple emails.
8	Gregory Suehr	Student Section Solicitation 2014	8/12/2014	57.2/52.73	FWDCC	DROPPED 3/20/2018:Dropped due to no participation and no response to numerous emails.
9	Mara Watson	Student Section Solicitation 2014	8/12/2014	ESCC (holding spot until new siting project started)	ESCC	DROPPED 5/3/16: Never completed WS user account, no response to multiple emails
10	Tim Stout	Random	8/27/2014	ANS-58.9	LLWRCC	DROPPED 4/18/19: Dropped due to no response; email bounced.
11	Christopher Courtenay	YMG Solicitation 2015	11/2015	ANS-2.25	ESCC	DROPPED 3/28/19: Resigned; lost interest
12	Philip Jensen	YMG Solicitation 2015	11/2/2015	ANS-3.14	NRNFCC	DROPPED 3/19/19: No participation on WG; contacted w/request to reassign if interested and provided list of possible projects--no response.
13	Siddharth Suman	YMG Solicitation 2015	11/11/2015	ANS-8.20	NCSCC	RESIGNED 4/18/19: WGC feedback stated no participation. When contacted Suman confirmed lack of participation. Felt it difficult to engage as PhD student in Switzerland; may request placement in future.
14	Matthew Lynch	YMG Solicitation 2015	11/1/2015	8.1	NCSCC	RESIGNED 6/1/2017: No longer interested/active.
15	Bristol Hartlage	YMG Solicitation 2015	11/1/2015	3.15	LLWRCC	RESIGNED 2/27/19: Employment changed. No longer in nuclear & no time.
16	Umer Shahid	saw notice in NN	6/12/2018	57.8	FWDCC	RESIGNED '5/27/19: Shahid stated that his new job keeps him too busy. He'll kept us in mind for the future. '5/8/19: WGC confirmed no participation.

Standards Board COMPLETED Action Items

Action Item	Description	Responsibility	Status/Comments /Reassignments
11/2018-02	Pat Schroeder to notify the <i>Nuclear New</i> publisher of the forthcoming article on RIPB methods and the intent to provide the article in time for the May 2019 issue. DUE DATE: December 1, 2018	Schroeder	Completed M. McQueen was informed 12/4/18. Article was approved by the SB and provided to NN 3/25/19 for publication in the May issue. The article did not make the May issue but was in the June issue which is provided to ANS Annual Meeting attendees.
11/2018-03	Donald Eggett to follow up with FWDCC on SMART Matrix actions under Goal 3 (D) on subcommittee and working group use of Workspace and (E) on identification of high priority standards based on government and industry need. DUE DATE: December 31, 2018	Eggett	Completed D. Hillyer addressed this issue at the 6/18/18 meeting.
11/2018-05	Steven Stamm to take a look at amending Goal 4 (A) Row 2 based on NEI taking the lead on issuance of standards priority survey. DUE DATE: December 1, 2018	Stamm	Completed Eggett suggests that a new AI be opened to capture Arndt / Eggett action to follow-up with NEI. Stamm provided the below evaluation: A. No changes to the ANS Strategic Plan should be made for this item. B. ANS should work to formulate an agreement with NEI that addresses: NEI's commitment to send out the ANS standards priority request to all of its members, the addressee as ANS SC for priority survey responses, allow ANS to provide feedback to the NEI responders, allow ANS to request standards support for responder recommended standards, ANS and NEI working together on current and new projects including the determination of whether the best end product is an NEI document or a standard. C. ANS SC should send survey requests to its membership as well. D. ANS will tabulate all of the survey results and establish its action

Standards Board COMPLETED Action Items

Action Item	Description	Responsibility	Status/Comments /Reassignments
11/2018-06	Steven Arndt, Steven Stamm, and Carl Mazzola to map the new ANS Strategic Plan against the ANS Standards Committee Strategic Plan to confirm alignment and to determine if any updates are needed. DUE DATE: March 1, 2019	Arndt, Stamm, Mazzola	Completed Stamm provided an evaluation of key goals of the two plans. The evaluation was reviewed 1/14/19 by teleconference with agreement that the two plans are aligned. The BOD report recognized this evaluation and notification that the two plans align well.
11/2018-07	William Turkowski to update the PD/SC presentation to include the recommendation of consistency/longer terms for PD liaison appointments. DUE DATE: January 31, 2019	Turkowski	Completed Presentation revised and provided to SB Chair and VChair 1/3/19.
11/2018-08	Pat Schroeder to reach out to the PD Chair on behalf of Steven Arndt to request 15 minutes on the PD Committee's agenda at the 2019 annual meeting (Saturday evening) to review the PD/SC Liaison Program (using updated presentation) and seek their feedback. DUE DATE: December 15, 2018	Schroeder	Completed Schroeder sent email request to T. Remick on behalf of S. Arndt on 12/12/18. Remick responded immediately in the affirmative.
11/2018-09	David Hillyer to follow up with William Turkowski regarding the PD/SC Liaison Program presentation and send to FWDCC members. DUE DATE: December 15, 2018	Hillyer	Completed Schroeder sent presentation to FWDCC members 12/12/18.
11/2018-10	Pat Schroeder to contact each working group chair to confirm participation of all associate members and check whether any should be upgraded to a full member. DUE DATE: December 31, 2018	Schroeder	Completed All have been contacted and several associate members were upgraded.
11/2018-11	Pat Schroeder to update and clean up the associate member tracking report (cross-out pattern hard to read) for the next Standards Board meeting. DUE DATE: June 1, 2019	Schroeder	Completed
11/2018-12	Pat Schroeder to work with Maryann Stasko to prepare a standards presentation and to help facilitate a presenter if needed for the upcoming YMG Congress in Washington D.C. DUE DATE: October 1, 2019	Schroeder	Completed At Stasko's request, 3 existing presentations were provided.
11/2018-17	Standards Board members to forward Carl Mazzola the name and contact information of any known experts on leachability. DUE DATE: December 31, 2018	SB members	Completed Expert added to ESCC.
11/2018-18	Pat Schroeder to provide David Hillyer available information on the three terminated decommissioning standards projects for his reference. DUE DATE: December 1, 2018	Schroeder	Completed Information provided 10/31/17 and resent 11/21/18.

Standards Board COMPLETED Action Items

Action Item	Description	Responsibility	Status/Comments /Reassignments
11/2018-22	Ed Wallace to send Mark Linn the License Modernization Project files including the draft version of NEI 18-04, "Risk-Informed Performance-Based Guidance for Non-Light Water Reactor Licensing Basis Development," for his reference in developing ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs." DUE DATE: December 1, 2018	Wallace	Completed Wallace provided to Linn on 11/13/18.
11/2018-23	Mark Linn to send Robert Budnitz and Ed Wallace a copy of a table in development in ANS-30.1 for review to ensure harmonization with RA-S-1.4 (Budnitz) and the LMP (Wallace). DUE DATE: December 31, 2018	Linn	Completed Linn sent documents 2/15/19.
11/2018-24	Mark Linn to provide RARCC a list of needs to complete ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs." DUE DATE: December 31, 2018	Linn	No longer relevant This action was to provide to the RARCC a list of review requests for ANS-30.1 draft material. Subsequent to the SB meeting, the draft document underwent a substantial redraft that removed many of the items that were generating the difficulties prompting this request. The working group is currently reviewing this document to determine if a "pre-review" by selected parties remains necessary or if the document can now be completed for normal ballot review. We hope to have a decision soon. Linn's suggestion is to close this AI as the needs have changed since originally prepared.
6/2018-13	Donald Eggett to contact the ANS Student Conference chair for the upcoming Student Conference April 2019 at Virginia Commonwealth University to explore opportunities for a standards presentation assuming that an ANS standards representative can attend the conference. DUE DATE: December 31, 2018	Eggett	Completed Wetzel made standards presentation at Student Conference.
10/2017-12	Consensus committee chairs to follow up with new liaisons when updated list available. DUE DATE: March 31, 2019	Consensus committee chairs	Completed An updated liaison list was provided to CC chairs 8/23/18. Liaisons have been invited to all CC meetings & calls.



ANS

RP3C Report to Standards Board

Minneapolis, MN

June 11, 2019

Significant Themes Covered of Interest to the Standards Board



ANS

- Standards Board (SB) SMART Matrix
 - RP3C responsibilities under Goal #1(D)
- RP3C's Progress Report on Procedural Guidance Development
 - Jim O'Brien is leading this effort
- RP3C Interaction with Consensus Committees (CCs)
 - Continuing the discussions from November 2018 on 23 standards
 - SB Action Item 11/2018-14
- RP3C Initiative to Advance Toward Effective Design and Operations
 - Discussions are continuing after input provided
- RP3C Interaction with CCs and WGs on Specific Standards
 - Discussion of broader application of concepts in the suite of seismic standards
- Changing Environment
 - SECY-18-0060, DG-1353, NEI 18-04

- SB SMART Matrix reflects Standards Committee Strategic Plan.
- RP3C covered by Goal #1 (D):
 - Goal #1=align standards development priorities with current and emerging needs
 - Goal#1(D)=incorporate RIPB methods in ANS standards
- The six activities under Goal#1(D) were discussed relative to responsibilities and schedules.

- Goal#1(D)=incorporate RIPB methods in ANS standards
 - Desired outcome for Goal#1(D)(1) and (4) captured by Guidance Document and its use in pilots
 - Desired outcome for Goal#1(D)(4) captured by SB Action Item 11/2018-14
 - Desired outcome for Goal#1(D)(2), (3) and (6) will be based on LMP training package
 - Goal#1(D)(5) completed with NN article

RIPB Approaches/Attributes



ANS

Performance-Based Attributes

- P1. The outcome of the standard is clearly defined.
- P2. The criteria that are established to achieve the outcome are high-level (i.e., provide flexibility in the manner in which the criteria is measured and to determine the “successful” level of the metrics).

Risk-Informed Attributes

- R1. The standard defines how to develop the risk insights (e.g., the importance of inputs or steps used in the standard).
- R2. The standard defines how to use risk insights (e.g., to specify a required actions to achieve the outcome).

Moving to Next Level

Integrating Design & Operations Standards

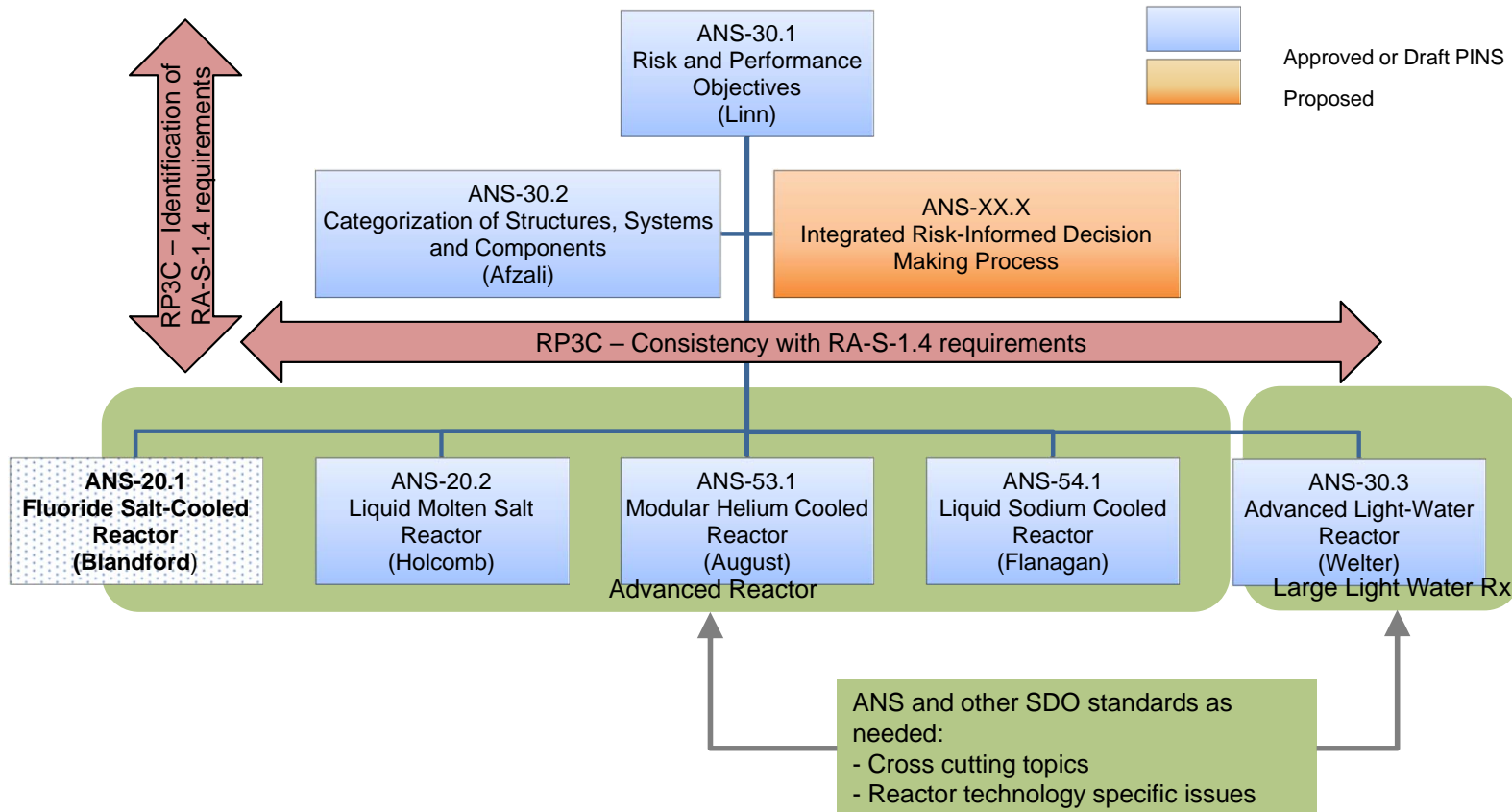


- Nuclear Energy Innovation and Modernization Act (NEIMA) offers opportunities and challenges
 - Explicitly defines “Technology-Inclusive Regulatory Framework” with mention of RIPB techniques
 - Mentions NRC collaboration with standards-setting organizations to identify areas for which new or updated standards are developed to provide predictability
- How should RP3C anticipate and support such activities?
- Improving effectiveness of ongoing ANS standards projects may be a place to start
 - ANS-30.1, ANS-30.2 and ANS-3.13 could be treated as a mutually supporting package
 - ANS-30.1 and 30.2 are under RARCC
 - ANS-3.13 is under LLWRCC

ANS New Reactor RIPB Standards Structure



ANS



RP3C Review of ANS-30.1



ANS-30.1 joins NEI 18-04 and RP3C Guidance Procedure pertaining to RIPB processes

- Benchmark for comparison should be NRC RIPB White Paper
- There is no “right” and “wrong” about RIPB criteria
- RP3C is looking for common ground and pointing out pros and cons from the perspective of the user community
- Users comprise ANS WGs, other SDOs, developers, designers, regulators, etc.
- Appearance of Draft Guide 1353 (out for public comment) must also be noted

NRC's Transformation Program (SECY-18-0060)



- Transform review process
 - Use risk insights to scale scope and depth of review
 - Consider safety benefits when taking account of uncertainty of new technologies
 - Leverage operating experience, third-party approvals, and consensus standards
 - Use tools to facilitate timely decision making
- Advanced reactors
 - Initiate PB-TI rulemaking

Licensing Modernization Project



- Update on LMP and industry developments
 - ACRS Review of DG-1353 / NEI 18-04rN – Feb 6, 2019
 - Review Letter (ML19078A240) – Mar 19, 2019
 - NEI 18-04 inaugural training session – Feb 19, 2019
 - NEI 18-04 r0 – Apr 1, 2019
 - DG-1353 (ML18312A242) issued for public comment – May 2, 2019
 - FRN 2019-09089
 - Regulatory Analysis (ML18325A214)
 - Comments due July 2, 2019
 - LMP Table Top exercises – on-going Sept 2018 – Aug 2019
 - LMP White Paper (4) Updates July 2019
 - Post LMP activity:
 - Technology Inclusive Content of Application (TICAP) in proposal development

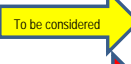








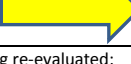
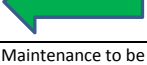







RP3C Report to SB



- Receive SB member comments on *NN* article content and process
- Development of uniform approach among CCs to evolving RIPB Guidance Procedure
- CC Chairs' reporting format to include RIPB considerations
- Follow-on to Action Item 11/2018-14
- Follow-up on Action Item 11/2018-15

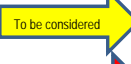

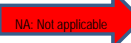








Tracking of RP3C Recommendations to Incorporate RIPB Methods (Updated 5/29/19)

RP3C Response to SB Action Item 11/2018-14

					  			
CC Owner (WGC)	DESIGNATION				Estimated Schedule for Drafts in Development Using RIPB Methods	Estimated Consideration Date to Incorporate RIPB Methods	RP3C Proposed Approach	CC Response to Proposed Approach
ESCC (WGC: Y. Gao/R. Schneider)	ANS-	2	8		Reballot scheduled to close 6/15/19.		RP3C interaction is ongoing. Awaiting WG Feedback	Draft being reviewed by Bob Youngblood and Nilesh Chokshi.
ESCC (WGCs: D. Clark)	ANS-	2	26		ESCC PINS ballot closed 4/26/19. ESCC comments being resolved.		Being addressed in 11-2018 RP3C Meeting	
ESCC (WGC: K. Hanson)	ANS-	2	27		Draft estimated to be completed for subcommittee review in September 2019		Needs coordination with ANS-2.26	Recognized during 3/20/19 call.
FWDCC (WGC: OPEN)	ANS-	57	1			Maintenance to be considered by 6/16/2021	LMP LBE approach may be applicable	
FWDCC (WGC: R. Browder)	ANS-	57	3			Maintenance to be considered by 2/27/2023	LMP guidance document may be applicable	
LLWRCC (WGC: J. Sickie)	ANS-	3	1			Believed to be NA for RIPB Maintenance to be considered by 11/20/2019	RP3C recommends PB approach with fitness-for-service considerations	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: M. Smith)	ANS-	3	2			Maintenance to be considered by 4/4/2022	RP3C considers this a high priority standard for RIPB	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: J. August)	ANS-	3	13		Project being re-evaluated; WG being reformed		RP3C considers this a high priority for advanced non-LWRs	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: K. Geelhood)	ANS-	18	1			Maintenance to be considered by 11/1/21	LMP work in context of DG-1353 should be considered	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: E. Johnson-Turnipseed)	ANS-	51	10			Revision currently in final stage was initiated before RP3C. Revision anticipated to be approved in 2019. Next maintenance to be considered in 2024.	RP3C has reported interactions with WG	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: J. Glover)	ANS-	56	1			Inactive project to be discussed at 11/14/18 LLWRCC meeting.	Work done with LMP on H2 control is relevant	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: J. Glover)	ANS-	56	8			NA - a revision of this standard has been in development for some time; prior to formation of RP3C and is expected to be issued for ballot in 2019 with ANSI approval the following year. The next maintenance consideration in ~2024.	Part 50 App J is PB	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: H. Liao)	ANS-	58	8		Draft issued to LLWRCC & RP3C with comment close date of 2/9/19. RP3C Chair comments pending resolution.			
LLWRCC (WGC: OPEN)	ANS-	58	9		WGC needed for schedule to be estimated.		SFC may be one of the high priority standards for LMP guidance application	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: M. Linn)	ANS-	58	14			Maintenance to be considered by 1/17/2022	LMP guidance definitely applicable	LLWRCC is waiting until guidance document is issued to address.

Tracking of RP3C Recommendations to Incorporate RIPB Methods (Updated 5/29/19)

RP3C Response to SB Action Item 11/2018-14

					  			
CC Owner (WGC)	DESIGNATION				Estimated Schedule for Drafts in Development Using RIPB Methods	Estimated Consideration Date to Incorporate RIPB Methods	RP3C Proposed Approach	CC Response to Proposed Approach
LLWRCC (WGC: M. Dooley)	ANS-	59	51		PINS in development		High likelihood of PB guidance being applicable	LLWRCC is waiting until guidance document is issued to address.
LLWRCC (WGC: M. Dooley)	ANS-	59	52		PINS in development		High likelihood of PB guidance being applicable	LLWRCC is waiting until guidance document is issued to address.
NRNFCC (WGCs: T. Anselmi & C. McMullin)	ANS-	3	14		Draft estimated to be completed for NRNFCC review in July 2019		RP3C working with CC Chair	Recognized during 5/21/19 call.
FWDC (WGC: R. Eble)	ANS-	57	11		Draft issued to NRNFCC & RP3C with comment close date of 6/2/19.		RP3C is ready to help	Recognized during 5/21/19 call.
NRNFCC (WGC: P. Rogerson)	ANS-	58	16			Maintenance to be considered by 9/4/19	High likelihood of LMP guidance being applicable	Recognized during 5/21/19 call.
RARCC (WGC: J. August)	ANS-	53	1			Maintenance to be considered at 11/12/18 RARCC meeting	RP3C working with WG Chair	
RARCC (WGC: G. Flanagan)	ANS-	54	1		Recirculation ballot closed 4/20/19 with 1 objection; appeal in process.		RP3C's input will be provided to SB	
RARCC (WGC: OPEN)	ANS-	54	6			NA - no plans to resurrect this inactive project	Needs more consideration	

Standards Prioritization Survey (Updated 5/27/19)

TOP 10			
Rank	Title or Topical Area (No.)	Assigned CC	Status
1	Criteria for Severe Accident Evaluation (ANS-58.15)	SRACC	In consideration
2	Design Criteria for Safe Shutdown Following Selected Design Basis Events in Light Water Reactors (ANS-58.11)	LLWRCC	In consideration
3	Risk-Informed and Performance-Based Nuclear Power Plant Design Process (ANS-30.1)	RARCC	In development
4	Post-Accident Monitoring (ANS-TBD)	LLWRCC	In consideration
5	Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications (ASME/ANS RA-S)	JCNRM	Pending industry input
6	Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants (ANS-57.2)	FWDCC	In development
7	Containment Hydrogen Control (ANS-56.1)	LLWRCC	Scope being considered
8	Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities (ANS-3.8.7)	LLWRCC	On hold due to lack of support
9	Properties of Radiological Emergency Response Plans and Implementing Procedures and Maintaining Emergency Response Capability for Nuclear Facilities (ANS-3.8.3)	LLWRCC	On hold due to lack of support
10	Determining Design Basis Flooding at Power Reactor Sites (ANS-2.8)	ESCC	Revised draft issued for 2nd ballot
NEXT 10 (Middle)			
11	Probabilistic Seismic Hazard Analysis (ANS-2.29)	ESCC	Revision in development
12	Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design (ANS-2.26)	ESCC	PINS in approval for revision
13	Criteria for Onsite Protective Actions During a Radiological Emergency (ANS-3.8.8)	LLWRCC	On hold due to lack of support
14	Design Requirements for New Fuel Storage Facilities at LWR Plants (ANS-57.3)	FWDCC	Published March 2018
15	Radioactive Source Term for Normal Operation of Light Water Reactors (ANS-18.1)	LLWRCC	Published November 2016
16	Criteria for Investigations of Nuclear Facilities Sites for Seismic Hazard Assessments (ANS-2.27)	ESCC	Revision in development
17	Nuclear Plant Reliability Assurance Program (RAP) (ANS-3.13)	LLWRCC	Working group regrouping
18	Requirements for Preoperational and Startup Testing (ANS-3.6)	LLWRCC	In consideration
19	Integrated Safety Assessments for Fuel Cycle Facilities (ANS-57.11)	NRNFCC	Draft issued for ballot
20	Nuclear Power Plant Decommissioning Process (ANS-TBD)	FWDCC	In consideration

ESCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

PINS in Development (1)

- ANS-3.16, "Meteorological Aspects of Wildland Fire Response" (proposed new standard)

PINS in Approval (3)

- ANS-2.18, "Standards for Evaluating Radionuclide Transport in Surface Water for Power Sites" (new standard)
- ANS-2.26, "Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design" (revision of ANSI/ANS-2.26-2004 (R2017))
- ANS-2.32, "Guidance on the Selection and Evaluation of Remediation Methods for Subsurface Contamination" (new standard)

Project Termination in Consideration (2)

- ANS-2.25, "Surveys of Ecology Needed to License Nuclear Facilities" (reinvigoration of historical standard ANS-18.5-1982 (W1992); re-designated ANS-2.25)
- ANS-2.33, "Aquatic Ecological Surveys Required for Siting, Design, and Operation of Thermal Power Plants" (new standard—formerly designated ANS-18.4)

Standards in Development – Approved PINS (9)

- ANS-2.9, "Evaluation of Ground Water Supply for Nuclear Facilities" (reinvigoration of historical standard ANS-2.9-1980 (R1989) (W1999))
- ANS-2.16, "Criteria for Modeling Design-Basis Accidental Releases from Nuclear Facilities" (new standard)
- ANS-2.21, "Criteria for Assessing Atmospheric Effects on the Ultimate Heat Sink" (revision of ANSI/ANS-2.21-2012 (R2016))
- ANS-2.22, "Environmental Radiological Monitoring at Nuclear Facilities" (new standard)
- ANS-2.27, "Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments" (revision of ANSI/ANS-2.27-2008 (R2016))
- ANS-2.29, "Probabilistic Seismic Hazard Analysis" (revision of ANSI/ANS-2.29-2008 (R2016))
- ANS-2.34, "Characterization and Probabilistic Analysis of Volcanic Hazards" (new standard)
- ANS-2.35, "Estimating the Socioeconomic Impacts of Construction, Operations, and Decommissioning a Nuclear Facility" (new standard)
- ANS-3.8.10, "Criteria for Modeling Real-time Accidental Release Consequences at Nuclear Facilities" (new standard)

Standards at Ballot/Resolving Comments (1)

- ANS-2.8, "Determining External Flood Hazards for Nuclear Facilities" (reinvigoration of historical standard ANS-2.8-1992 (W2002)) (subsumed ANS-2.31)

Standards Recently Approved (1)

- ANSI/ANS-16.1-2019, "Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure" (revision of ANSI/ANS-16.1-2003 (R2017))

Standards Published in 2019 (1)

- ANSI/ANS-16.1-2019, "Measurement of the Leachability of Solidified Low-Level Radioactive Wastes by a Short-Term Test Procedure" (revision of ANSI/ANS-16.1-2003 (R2017))

Delinquent Standards (5+ years since ANSI approval) (0)

No delinquent standards at this time.

Responses to Inquiries (0)

No open inquiries.

Membership Changes

- William Ebert with Argonne National Laboratory was added to the ESCC.
- Marsha Kinley replaced Paul Snead as the Duke representative on the ESCC.

Volunteer Staffing Needs

Staffing Need (member, chair, etc.) # of positions	Standard #	Date Need Identified (Estimated)	Priority (H or M)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Members	ANS-2.3	2017	--	9 members as of 5/15/19	a, d, e, i	2017 - current
Chair	ANS-2.9	2017	L		a, d, e	2017 - current
Chair	ANS-2.16	Sept 2018	--	2/7/19	a	10/2018 - current
Members	ANS-2.18	pre-dates ESCC	M		a, d, e	various 2015- current
Members	ANS-2.25	pre-dates ESCC	Project being considered for termination.			
Chair/Members	ANS-2.33	2017	Project being considered for termination.			
Chair	ANS-3.8.10	Sept 2018	H		a	10/2018 - current
Chair	ANS-3.16	July 2018	--	12/14/18	a, d, e	July 2018
SubC Vice Chairs (2)	<ul style="list-style-type: none">• Atmospheric• General/Monitoring	2014	L		d, e	2014 - current
SubC Vice Chairs (2)	<ul style="list-style-type: none">• Hydrogeological• Environmental Impact	2018	L		d, e	2018 various

* High (H) or medium (M) priority based on priority of standard or reaffirmation time limit.

**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. Linked in post, g. conference speakers and paper authors, h. internet search, i. other

FWDCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

Standards in Development – Approved PINS (2)

- ANS-57.2, "Design Requirements for Light Water Reactor Spent Fuel Facilities at Nuclear Power Plants" (reinvigoration of historical standard ANSI/ANS-57.2-1983)
- ANS-57.8, "Fuel Assembly Identification" (revision of ANSI/ANS-57.8-1995; R2017)

Standards Recently Approved (1)

- ANSI/ANS-57.3-2018, "Design Requirements for New Fuel Storage Facilities at LWR Plants" (reinvigoration of historical standard)

Standards Published in 2019 (0)

No standards were published.

Delinquent Standards (5+ years since ANSI approval) (0)

The FWDCC has no delinquent standards.

Responses to Inquiries Issued (0)

The FWDCC has no open inquiries.

Membership Changes

Thomas Smedra replaced Mitchell Sanders as Westinghouse representative due to retirement. Sanders remains on the FWDCC as an individual.

Volunteer Staffing Needs

Staffing Need (Member, chair, etc.)# of positions	Standard #	Date Need Identified (Estimated)	Priority (H or M)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Chair/Members	ANS-40.21	pre-dates FWDCC	M		d, e	various 2014 - current
Members	ANS-40.35	pre-dates FWDCC	M		d, e	various 2014 - current
Chair/Members	ANS-55.1	pre-dates FWDCC	M		d, e, f	various 2014 - current
Chair/Members	ANS-55.4	pre-dates FWDCC	M		d, e, f	various 2014 - current
Chair/Members	ANS-55.6	pre-dates FWDCC	M		d, e, f	various 2014 - current
Chair/Members	ANS-57.1	pre-dates FWDCC	M		d, e	various 2014 - current
Members	ANS-57.5	pre-dates FWDCC	M		d, e	various 2014 - current
Members	ANS-57.9	4/2019	M		d	May 2019 - current
Chair/Members	ANS-57.10	pre-dates FWDCC	M		e	various 2014 - current
Chair/Vice Chair	Decommissioning (Commercial & Research Facilities) SubC	2014	M		d, e	various 2014 - current
Chair/Vice Chair	High Level, GTCC, Low Level, & Mixed Waste Subcommittee	2014	M		d, e	various 2014 - current
Vice Chair	New and Used Fuel (Design Only) SubC	2014	M		d, e	various 2014 - current

* High (H) or medium (M) priority based on priority of standard or reaffirmation time limit.

**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. LinkedIn post, g. conference speakers and paper authors, h. internet search, i. other

JCNRM June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

JCNRM Leadership

The JCNRM is managed by a chair and vice chair representing each society. Robert Budnitz and Rick Grantom serve as co-chairs for ANS and ASME respectively. Dennis Henneke and Pamela Nelson serve as co-vice chairs for ANS and ASME respectively.

JCNRM Meeting

The JCNRM held a series of meetings on Monday, February 11, through Thursday, February 14, 2019, in St. Petersburg, Florida. Numerous working group and subcommittee meetings were held on Monday through Wednesday, involving about 160 participants. The JCNRM Executive Committee met on Tuesday and Wednesday afternoons, and the 4-day-long meeting culminated on Thursday with a full-day meeting of the main committee (i.e., the JCNRM consensus committee). The main committee meeting addressed administrative issues such as membership, awards, open ballots, and proposals for future work, and it also had technical discussions on several important topics related to the standards-development work that it oversees. Consideration is being given to initiating a guidance document for risk-informed cybersecurity and physical security methods.

The next set of JCNRM meetings is anticipated to be held September 23, through 26, 2019, probably in the Washington DC / Baltimore area pending finalization of the ASME Meetings Department.

Updates were provided on all projects in development (see the reports below).

ASME/ANS RA-S

The “next edition”: Work on the revision of the JCNRM’s main flagship PRA standard, ASME/ANS RA-S-2008, has been under way since the release of Addenda B in 2013. A reaffirmation of the standard was processed to keep the standard current while the revision is completed. This next version will be called a “new edition.” This new edition is expected to contain many substantive changes based on feedback from recent users of the standard, along with extensive re-formatting and the like. Most work has been completed; however, a few important and difficult technical issues remain. Finalization awaits the incorporation of input from a series of PWROG/NRC workshops on the topic of what constitutes a “PRA upgrade” as distinct from a “PRA maintenance activity.” The issue is important because different levels of peer review are required for these two categories of changes to an existing PRA. It is anticipated that the writing groups will need at least two months to incorporate feedback and prepare the draft for JCNRM ballot. The Next Edition will be redesignated RA-S-1.1.

Seismic PRA Case: The PRA user community requested the JCNRM to produce an expedited version of the next edition’s section dealing with seismic PRA. The relevant JCNRM working group worked diligently for over a year, and produced a new section with updated requirements on seismic PRA that was approved by the JCNRM in March 2018, and issued in April. This “case” is already being used by several US nuclear-power-plant PRA groups that are developing new seismic PRAs, and it was also endorsed by the NRC for certain applications. This is a success story vis-à-vis the responsiveness of the JCNRM to a pressing industry need. A typographical error was recently identified in the Case, and a correction is in the final stages of approval.

New Standards in Development

There are 6 new PRA methodology standards in various stages of development. Note that the JCNRM has decided that each of these new standards will be released initially for Trial Use and Pilot Application – not for approval as an American National Standard by the American National Standards Institute (ANSI).

ANS-58.22-2014, “Standard for Low Power and Shutdown Methodology for PRA Applications”

- Don Wakefield recently retired after ten years as the LPSD Chair; Jonathan Li assumed the leadership position in February 2019.

- Because of technical difficulties and insufficient industry experience, it took a very long time to complete the trial-use standard; the WG began its work in 1999.
- ANS/ASME-58.22-2014 was published on March 25, 2015, for a 36-month trial use period.
- Five pilot applications at operating nuclear power plants were completed.
- Findings from the trial-use period are currently being incorporated into a revision of this standard, based in part on the five pilot applications.
- The final version of this revision is being worked on now, but will be held up until the completion of the “next edition” of our flagship at-power PRA standard, so that this standard can be fully coordinated with that at-power standard.
- A decision will be made by the JCNRM soon whether to incorporate the upcoming revised version into a future revision of ASME/ANS RA-S (the combined Level 1 standard) or to issue it as a standalone standard.

ASME/ANS RA-S-1.2-2014, “Severe Accident Progression and Radiological Release (Level 2) PRA Methodology to Support Nuclear Installation Applications” (previously ANS/ASME-58.24)

- The writing group is currently led by Ray Schneider, and this effort has been underway since 2005.
- ASME/ANS RA-S-1.2-2014 was published on January 5, 2015, for a 24-month trial use period. A one-year extension of the trial use was subsequently approved.
- The trial-use period for the Level 2 PRA Standard closed January 2018. The document is still available for use during the current period as revisions are being incorporated.
- Findings from the trial-use period are being incorporated into a revision of the standard; the revised standard will be issued for ballot with the intent of seeking ANSI approval.
- The final version of this revision is being held until the completion of the “Next Edition,” so that this standard can be fully coordinated.

ASME/ANS RA-S-1.3-2017, “Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications” (previously ANS/ASME-58.25)

- The writing group is now led by Grant Teagarden, who took over in mid-2018 from Keith Woodard, who had chaired this effort since its inception in 2005.
- The standard was published on July 13, 2017, for a 24-month trial-use period; a one-year extension was subsequently approved extending the trial use period to July 13, 2020.
- The writing group is now beginning the work to revise the standard based on insights from the trial uses.
- It is expected that this work will continue through 2019, at which time a new version will be available for JCNRM ballot, with the intent of seeking ANSI approval.

ASME/ANS RA-S-1.4-2013, “Advanced Non LWR PRA Standard”

- The writing group is led by Karl Fleming, underway since 2007.
- A JCNRM ballot was held in spring 2013, and the standard was published on December 9, 2013, for trial use and pilot application for a 36-month period.
- Nine pilots of this standard have been completed.
- Findings from the trial-use period are being incorporated into a revision of the standard; the revised standard will be issued for ballot with the intent of seeking ANSI approval.
- The final version of this revision will be held up until the completion of the “next edition” of our flagship at-power PRA standard, so that this standard can be fully coordinated with that standard. This means that the next version of this standard will likely be available for ballot in mid-2020.

ASME/ANS RA-S-1.5, “Advanced Light Water Reactor PRA Standard”

- The project was initiated in 2007. Sarah Bristol is currently the writing group chair.
- The JCNRM calls this the “ALWR PRA Standard.”
- A JCNRM ballot was held in spring 2013. Additional changes were made to the draft, in part to accommodate applicability to small modular reactors that use light-water coolant.

- The writing group has incorporated additional comments from the NRC related to the NRC's ALWR Interim Staff Guidance into the draft.
- The ALWR team has reached consensus on the definition of Large Release Frequency. A ballot was issued to the JCNRM to approve the definition prior to the draft of the full standard being issued for ballot. Comment resolutions are in process.
- The ALWR Standard will be issued initially as a standalone standard. It will be issued initially for trial use. The intent is that it will later be incorporated into a revision of RA-S as a chapter or an appendix.
- The plan is to move ahead with the revision of the existing ALWR draft to align with the "Next Edition."

ASME/ANS RA-S-1.7-201x, "Trial Use Standard for Multi-Unit PRA"

- The writing group is led by Karl Fleming, formally underway since early 2019.
- The JCNRM calls this the "MUPRA Standard."
- The PINS for the MUPRA Standard was approved by the ANS Standards Board in May 2019.
- The MUPRA Standard will be issued as a standalone standard. It will be issued initially for trial use. The schedule calls for the first version to be ready for JCNRM ballot some time in 2020. The intent is that it will later be incorporated into a revision of RA-S as an appendix.

ANS RISC merger with ASME CNRM to form a new "Joint Committee on Nuclear Risk Management": "Organizational" aspects merged in 2012, "business" aspects in 2016

The JCNRM's activities take place under the oversight of the ANS Standards Board and the ASME Board on Nuclear Codes and Standards. Both Boards must approve all important JCNRM standards actions and administrative changes. Both Boards consider the JCNRM to be a "consensus committee" reporting through the usual channels. The merger to create the JCNRM has two aspects, an "organizational" aspect and a "business" aspect. The "organizational" aspect, which was completed in early 2012 after over two years of administrative and liaison work, involved developing a "Rules and Operating Procedure" and a new structure for the joint committee. The structure consists of 3 subcommittees and a series of about 10 writing groups and working groups, and a half-dozen short-term project teams. This structure has worked well and there have not been any conflicts between the two societies on anything of substance.

The JCNRM "business" aspect was finalized with the signing of a licensing agreement and a copyright agreement by the managements of both societies on June 23, 2016. The arrangement consists of ANS assumption of the administrative work of editing and publishing all new JCNRM standards and the related expenses; and ASME assumption of the work of arranging meetings, serving as JCNRM Secretary, managing the ballot process, and submitting ANSI documents as needed as well as a few other administrative tasks, and the related expenses. The JCNRM is obligated to follow the "Procedures for ASME Codes and Standards Development Committees." Supplemental procedures to address specifics unique to the JCNRM were developed. The ANS Standards Board has approved the procedures.

Standards Inquiries and Delinquent Standards

A reaffirmation was processed to keep ASME/ANS RA-S-2008/Sb-2013 ("Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications") current while the revision is being completed. The JCNRM does not have any delinquent standards in need of maintenance, nor any active inquiries at this time.

Future Plans

The JCNRM's Executive Committee has been meeting more-or-less bi-weekly by conference call. The principal focus has always been to serve as the "planning committee" and "coordinating committee" to oversee governance of the large and complex set of JCNRM activities, with an eye on planning for up to about two years out. The most important JCNRM effort now is to develop the next version of the main PRA Standard ASME/ANS RA-S (see discussion above.) This next version, which we will call a "new edition" instead of an "addendum," is expected to have substantial changes to the format as well

as to the content, based largely on feedback received in the past 3-5 years as this standard has been used by the commercial nuclear-power operating fleet and by the NRC. During this period of use, many areas have been identified where inconsistencies exist between different parts of the large PRA standard, mostly due to variable interpretations, and a few other problems have also been discovered during use. A number of what the JCNRM has called “cross cutting issues” have also been identified, each of which is being worked on by one of several *ad hoc* project teams within the larger JCNRM. Some of these issues have policy implications for how the standard is to be used, but mostly these are issues with technical substance.

The other major JCNRM task in the next year is to issue the ALWR PRA standard under development as discussed in the opening section of this report. This is a major effort.

A third important task, although it does not require a lot of JCNRM effort now, is following the progress of the several “trial-use applications” of our new standards, to assure that the way they approach their work provides as much useful feedback information as feasible to the JCNRM.

Finally, the JCNRM has been working with groups in several foreign countries about forming what we are calling “JCNRM International Working Groups” (IWGs). The Chinese and the Japanese have each already formed an IWG that the JCNRM has approved, and another new IWG is under active discussion in Korea. The Canadians have also inquired about the possibility, although their inquiry is currently dormant. Each IWG consists of several PRA and risk-management experts in the respective country who have agreed to perform reviews of JCNRM draft standards, to perform trial applications of our standards as appropriate, to propose changes to our standards or other new JCNRM initiatives, and generally to act as an “arm” of the JCNRM in the respective country. The Chinese IWG and the Japanese IWG each consist of a couple of dozen engineers. Each of these IWGs holds physical meetings in the foreign country, and its proceedings take place mostly in the foreign language. Each IWG has a chair designated by them but approved by the JCNRM, and each IWG chair will likely be appointed as a voting member of the JCNRM itself, although that decision will be taken on a case-by-case basis. (We have insisted that the English language skills of each IWG chair be acceptably competent. This has not been a problem at all so far.) The JCNRM sees the formation of IWGs as a way to involve foreign experts in an organized activity that can assist the JCNRM in its technical work. The benefit to our foreign colleagues is early access to our work products and an opportunity to influence them technically at a relatively early stage.

Financial Support

A series of grants to the ANS from the U. S. Nuclear Regulatory Commission (NRC) have provided financial support for the work of the standards committee, mainly to cover travel costs of participants who have no other financial support, but also to cover a few other selected administrative and meeting expenses. The latest of these was formally awarded in February 2015 and allows funds to be used through February 2020; however, funds are expected to be depleted later this year. ANS is working with the NRC on a cooperative agreement to continue financial support of JCNRM standards development activities.

LLWRCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

PINS in Development (4)

- ANS-3.1, "Selection, Qualification and Training of Personnel for Nuclear Power Plants" (revision of ANSI/ANS-3.1-2014)
- ANS-3.15, "Cybersecurity for Nuclear Facilities" (proposed new standard—title TBD)
- ANS-58.2, "Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture" (reinvigoration of historical standard)
- ANS-60.1, "Export Control Standard" (proposed new standard—title TBD)

PINS in Approval/Comment Resolution (1)

- ANS-56.2, "Containment Isolation Provisions for Fluid Systems After a LOCA" (historical revision of ANSI/ANS-56.2-1984 (W1999))

Standards in Development – Approved PINS (5)

- ANS-3.5.1 "Nuclear Power Plant Simulators for Use in Simulation-Assisted Engineering and Non-Operator Training" (proposed new standard)
- ANS-3.8.7, "Properties of Planning, Development Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities" (revision of historical standard ANSI/ANS-3.8.7-1998)
LLWRCC members proposed a redirection of the emergency preparedness standards to new nonLWR plants. This includes ANS-3.8.1, ANS-3.8.2, ANS-3.8.3, and ANS-3.8.6.
- ANS-3.13 "Nuclear Plant Reliability Assurance Program (RAP) Development Guidance for Design, Construction, and Operation" (new standard)
- ANS-30.3, "Advanced Light-Water Reactor Risk-Informed Performance-Based Design Criteria and Methods" (new standard)
- ANS-56.8, "Containment Leakage Testing Requirements" (revision of ANSI/ANS-56.8-2002 (R2016))
- ANS-59.3, "Nuclear Safety Criteria for Control Air Systems" (reinvigoration of historical standard)

Standards at Ballot/Resolving Comments (2)

- ANS-51.10-201x, "Auxiliary Feedwater System for Pressurized Water Reactors" (revision of ANSI/ANS-51.10-1991 (R2018))
- ANS-58.8, "Time Response Design Criteria for Safety-Related Operator Actions" (revision of ANSI/ANS-58.8-1994 (R2017))

Proposed Standard Pending Appeal (1)

- ANS-3.5-201x, "Nuclear Power Plant Simulators for Use in Operator Training and Examination" (revision of ANSI/ANS-3.5-2009)

Standards Approved in 2019 (0)

No standards approved.

Standards Published in 2019 (0)

No standards were published.

Delinquent Standards (5+ years since ANSI approval) (0)

No delinquent standards. NA ANSI/ANS-3.5-2009 due to pending appeal.

Responses to Inquiries in Development/Approval (2)

- An inquiry was received 3/29/18 on ANSI/ANS-58.2-1988 (W1998), "Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture." A response was issued for LLWRCC approval. Comments on the ballot led to the determination that the erratum would constitute a substantive change and can only be issued via a revision.
- An inquiry was received 4/10/19 on ANSI/ANS-18.1-2016, "Radioactive Source Term for Normal Operation of Light Water Reactors." The inquiry has been sent to the working group to develop a response.

Membership Changes

No changes in 2019.

Volunteer Staffing Needs

Staffing Need (Member, chair, etc.)# of positions	Standard #	Date Need Identified (Estimated)	Priority H or M)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Members	ANS-3.13	2014	M		d, e	various 2014-current
Members	ANS-51.10	2014	M		d, e, f	various 2014-current
Members	ANS-56.2	April 2018	M	E. Johnson- Turnipseed (temp. chair)	d, e	May 2018-current
Chair/Members	ANS-58.6	2014	M		d, e	various 2014-current
Chair/Members	ANS-58.9	April 2017	M		d, e	various 2017-current
Chair/Members	ANS-58.11	pre-dates LLWRCC	M		d, e	various 2014-current
Members	ANS-59.51	pre-dates LLWRCC	M	Chair committed 3/2/2017	d, e, f	various 2014-current
Members	ANS-59.52	pre-dates LLWRCC	M	Chair committed 3/2/2017	d, e, f	various 2014-current
Members	ANS-60.1	2016	M		d, e	various 2016-current
Vice Chair	LWR & Reactor Auxiliary Systems Designs SubC	February 2018	M		d, e	April 2018-current
Chair	Power Generation & Plant Support Systems SubC	2017	H		d, e	2017-current

* High (H) or medium (M) priority based on priority of standard or reaffirmation time limit.

**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. LinkedIn post, g. conference speakers and paper authors, h. internet search, i. other

NRNFCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

Standards in Development – Approved PINS (1)

- ANS-3.14, "Process for Aging Management and Life Extension of Nonreactor Nuclear Facilities" (new standard)

Standards at Ballot/Resolving Comments (1)

- ANS-57.11, "Integrated Safety Assessments for Nonreactor Nuclear Facilities" (new standard)

Delinquent Standards (5+ years since ANSI approval) (0)

No delinquent standards at this time. Maintenance action is being considered on ANSI/ANS-58.16-2014, "Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities."

Responses to Inquiries (0)

No open inquiries.

Standards Published (0)

No standards were published.

Membership Changes (2)

- Larry Berg, U.S. Department of Energy (DOE) was added to the NRNFCC.
- Paul Rogerson, Bechtel Corporation, was added to the NRNFCC.

Volunteer Staffing Need

The NRNFCC currently has no staffing needs. If a decision is made that a revision of ANSI/ANS-58.16-2014 should be initiated, working group members will be recruited.

NCSCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

PINS in Development (3)

- ANS-8.10, "Criteria for Nuclear Criticality Safety Controls in Operations With Shielding and Confinement" (revision of ANSI/ANS-8.10-2015)
- ANS-8.17, "Criticality Safety Criteria for the Handling, Storage, and Transportation of LWR Fuel Outside Reactors" (revision of ANSI/ANS-8.17-2004 (R2014))
- ANS-8.19, "Administrative Practice for Nuclear Criticality Safety" (revision of ANSI/ANS-8.19-2014)

PINS in Approval (1)

- ANS-8.22, "Nuclear Criticality Safety Based on Limiting and Controlling Moderators" (revision of ANSI/ANS-8.22-1997 (R2016))

Standards in Development – Approved PINS (7)

- ANS-8.1, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors" (revision of ANSI/ANS-8.1-2014)
- ANS-8.3, "Criticality Accident Alarm System" (revision of ANSI/ANS-8.3-1997 (R2017))
- ANS-8.7, "Nuclear Criticality Safety in the Storage of Fissile Materials" (revision of ANSI/ANS-8.7-1998 (R2017))
- ANS-8.12, "Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors" (revision of ANSI/ANS-8.12-1987 (R2016))
- ANS-8.20, "Nuclear Criticality Safety Training" (revision of ANSI/ANS-8.20-1991 (R2015))
- ANS-8.26, "Criticality Safety Engineer Training and Qualification Program" (revision of ANSI/ANS-8.26-2007 (R2016))
- ANS-8.28, "Administrative Practices for the Use of Non-Destructive Assay Measurements for Nuclear Criticality Safety" (new standard)

Standards @ Ballot/Resolving Comments (2)

- ANS-8.21, "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors" (reaffirmation of ANSI/ANS-8.21-1995 (R2019))
- ANS-8.23, "Nuclear Criticality Accident Emergency Planning and Response" (revision of ANSI/ANS-8.23-2007 (R2012))

Standards Approved in 2019 (1)

- ANSI/ANS-8.21-1995 (R2019), "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors" (reaffirmation of ANSI/ANS-8.21-1995 (R2011))

Standards Published (0)

No standards were published.

Delinquent Standards – 5+ Years Since ANSI Approval (2)

- ANSI/ANS-8.23-2007 (R2012), "Nuclear Criticality Accident Emergency Planning and Response" (revision @ NCSCC ballot)

Responses to Inquiries in Development (1)

An inquiry was received 1/30/2018 on ANSI/ANS-8.14-2004 (R2016), "Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors." The response was approved and issued June 2019.

Membership Changes

No membership changes in 2019.

Volunteer Staffing Needs

The NCSCC has no staffing needs.

RARCC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

PINS in Development (1)

- ANS-53.1, "Nuclear Safety Design Process for Modular Helium-Cooled Reactor Plants" (revision of ANS-53.1-2011 (R2016))

Standards in Development – Approved PINS (6)

- ANS-1, "Conduct of Critical Experiments" (revision of ANSI/ANS-1-2000 (R2012))
- ANS-15.8, "Quality Assurance Program Requirements for Research Reactors" (revision of ANSI/ANS-15.8-1995 (R2018))
- ANS-15.22, "Classification of Structures, Systems and Components for Research Reactors" (new standard)
- ANS-20.2, "Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten Salt Reactor Nuclear Power Plants" (new standard)
- ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs" (new standard)
- ANS-30.2, "Structures, Systems, and Component Classification for Nuclear Power Plants" (new standard)

Standards at Ballot/Resolving Comments (2)

- ANS-1-2002 (R201x), "Conduct of Critical Experiments" (reaffirmation of ANSI/ANS-1-2002 (R2012))
- ANS-14.1-2004 (R201x), "Operation of Fast Burst Reactors" (reaffirmation of ANSI/ANS-14.1-2004 (R2014))

Proposed Standard Pending Appeal (1)

- ANS-54.1, "Nuclear Safety Criteria and Design Process for Liquid-Sodium-Cooled Reactor Nuclear Power Plants" (revision of historical standard ANSI/ANS-54.1-1989)

Standards Approved in 2019 (0)

No RARCC standards have recently been approved.

Delinquent Standards (5+ years since ANSI approval) (1)

- ANS-1-2002 (R2012), "Conduct of Critical Experiments" (reaffirmation in process; revision in development)

Responses to Inquiries (0)

The RARCC has no open inquiries.

Staffing Needs

Staffing Need (Member, chair, etc.)# of positions	Standard #	Date Need Identified (Estimated)	Priority H or M)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Members	ANS-53.1	11/2018	M		d, e	various 2014-current

* High (H) or medium (M) priority based on priority of standard or reaffirmation time limit.

**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. LinkedIn post, g. conference speakers and paper authors, h. internet search, i. other

Membership Changes

- Robert Carter retired from the RARCC and all standards activities having served the ANS standards committee since 1956.
- Donald Spellman rejoined the RARCC.

SRACC Chairman's Report to the ANS Standards Board

Tuesday, June 11, 2019 • Hyatt Regency Minneapolis, Minneapolis, MN

PINS in Development/Approval (1)

- ANS-19.8, "Fission Product Yields for 235U, 238U, and 239P" (proposed new standard)

Standards in Development – Approved PINS (9)

- ANS-6.1.1, "Neutron and Photon Fluence-to-Dose Conversion Coefficients" (reinvigoration of historical standard ANSI/ANS-6.1.1-1991)
- ANS-6.4.2, "Specification for Radiation Shielding Materials" (revision of ANSI/ANS-6.4.2-2006)
- ANS-6.4.3, "Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering Materials" (reinvigoration of historical standard ANSI/ANS-6.4.3-1991)
- ANS-10.4, "Verification and Validation of Non-Safety-Related Scientific and Engineering Computer Programs for the Nuclear Industry" (revision of ANSI/ANS-10.4-2008 (R2016))
- ANS-19.5, "Requirements for Reference Reactor Physics Measurements" (historical revision of ANSI/ANS-19.5-1995—new standard)
- ANS-19.3.4, "Determination of Thermal Energy Deposition Rates in Nuclear Reactors" (revision of ANS-19.3.4-2002 (R2017))
- ANS-19.6.1, "Reload Startup Physics Tests for Pressurized Water Reactors" (revision of ANSI/ANS-19.6.1-2016)
- ANS-19.9, "Delayed Neutron Parameters for Light Water Reactors" (new standard)
- ANS-19.12, "Nuclear Data for the Production of Radioisotope" (new standard)

Standards at Ballot/Resolving Comments (0)

No standards at ballot or resolving comments.

Standards Recently Approved (2)

- ANSI/ANS-5.1-2014 (R2019), "Decay Heat Power in Light Water Reactors" (reaffirmation of ANSI/ANS-5.1-2014)
- ANSI/ANS-19.1-2019, "Nuclear Data Sets for Reactor Design Calculations" (revision of ANSI/ANS-19.1-2002 (R2011))

Standard Published in 2019 (1)

- ANSI/ANS-19.1-2019, "Nuclear Data Sets for Reactor Design Calculations" (revision of ANSI/ANS-19.1-2002 (R2011))

Delinquent Standards (5+ years since ANSI approval) (3)

- ANSI/ANS-5.4-2011, "Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel (maintenance requested)
- ANSI/ANS-5.10-1998 (R2013), "Airborne Release Fractions at Non-Reactor Nuclear Facilities" (maintenance requested)
- ANSI/ANS-10.2-2000 (R2009), "Portability of Scientific and Engineering Software" (SRACC concurred with working group's decision to allow the standard to be administratively withdrawn; update to be initiated when technology stable)

Responses to Inquiries in Development (0)

The SRACC has no open inquiries.

Membership Changes (0)

There have been no recent membership changes.

Volunteer Staffing Needs

Staffing Need (Member, chair, etc.)# of positions	Standard #	Date Need Identified (Estimated)	Priority (H or M)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Chair/Members	ANS-6.3.1	2015	M		d,e	various 2015-current
Members	ANS-19.3.4	2017	M	WG has 7 members May 2019	a, d, e	2017 - current
Members	ANS-19.8	pre-dates SRACC	M		a, d, e	various 2014-current
Chair/Members	ANS-19.9	pre-dates SRACC	M		a, d, e	various 2014-current
Chair/Members	ANS-19.12	pre-dates SRACC	M		d, e	various 2014-current

* High (H) or medium (M) priority based on priority of standard or reaffirmation time limit.

**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. LinkedIn post, g. conference speakers and paper authors, h. internet search, i. other

ANS Standards Board Task Groups

(Updated 10/2018)

Policy Task Group

Scope: Function as an advisory group to the chair of the Standards Board (SB) on administrative or procedural issues referred to it from the SB. Interface with the ANS Board of Directors and Standing Committees on policy issues that affect the ANS strategic plan. Review external requests from other SDOs, government organizations, and the public for relevance to the activities of the standards committee and make recommendations on these requests to the SB chair. This does not include clarifications and inquiries on specific standards that are handled under the Standards Committee rules and procedures. Resolve questions referred to the task group from the SB relative to questions or clarifications of Standards Committee policies, rules, and procedures. Membership includes the current and past chairs of the ANS SB, the current SB vice chair, and the standards manager.

Steven Arndt, Chair*

George Flanagan

Prasad Kadambi

Patricia Schroeder

NOTE: Current SB Chair = Policy TG Chair

External Communications Task Group

Scope: Improve the links between ANS and users (utilities, designers, architect engineers, universities, national labs, and fuel fabricators), national regulators, other U.S. SDOs, and international SDOs. One member should be actively involved with the NRC Standards Forum.

OPEN, Chair*

Amir Afzali

Ed Wallace (SB)

Stanley Levinson (JCNR/SCoRA)

Internal Communications Task Group

Scope: Establish closer relationships with ANS governance and technical divisions. Attempt to get more direct representation from technical divisions on standards committees. Revise a training module prepared by Steve Stamm into several modules for different audiences and set up regular presentations at the ANS biannual meetings. Develop an active/inactive Standards Committee members grouping system and methods to encourage non-involved volunteers to become active working group members.

Bill Turkowski , Chair (SB)*

* Chair (may be changed at the discretion of the task group)

** No CC chairs on the task groups other than by personal preference

Links Between the ANS Standards Committee and Other SDOs and Other Related Organizations (5/29/19)

NOTE: List will need updating/verification by new External Communications TG Chair

Name of SDO/and Other Related Organizations	Standards Committee Liaison	Link Adequate Y or N?	Next Actions
ACI		?	
AISC		?	
AGS	Jeffery Brault (NRNFCC)	Y	
AICHE		?	
ANSI & ISO TC 85 SC 6	Prasad Kadambi (SB)	Y	
ASCE	Carl Mazzola (SB)	Y	
ASME NQA	Chuck Moseley (LLWRCC)	Y	
ASTM-C26		?	
EPRI	Andrew Sowder (SB)	Y	
IEEE/NPEC	Donald Spellman (SB liaison to NPEC) Dr. Richard Wood (NPEC liaison to SB)	Y	
INMM	Ronald Knief (NCSCC)	Y	
INPO		?	
HPS	Christopher Gramham (SRACC)	Y	
JCNRM/SCoRA	Stanley Levinson (SB)	Y	
NCRP		?	
NEI		N	Needs assignment
NFPA		?	

Acronyms

ACI: American Concrete Institute

AGS: American Glovebox Association

AICHE: American Institute of Chemical Engineers

AISC: American Institute of Steel Construction

ANSI: American National Standards Institute

ASCE: American Society of Civil Engineers

ASTM-C26: American Society for Testing and Materials-C26 Nuclear Fuel Cycle

EPRI: Electric Power Research Institute

HPS: Health Physics Society

IEEE/NPEC: Institute of Electrical and Electronics Engineers/Nuclear Power Engineering Committee

INMM: Institute of Nuclear Materials Management

INPO: Institute of Nuclear Plant Operations

ISO: International Organization for Standardization

JCNRM/SCoRA: Joint Committee on Nuclear Risk Management/SubCommittee on Risk Application

NCRP: National Council on Radiation Protection

NEI: Nuclear Energy Institute

NFPA: National Fire Protection Association