American Nuclear Society

MINUTES

Standards Board (SB)

November 17, 2020

Members Present (17/17 voting members = 100%):
Donald Eggett (Chair), Eggett Consulting LLC
Carl Mazzola (Vice Chair), Project Enhancement Corporation
Patricia Schroeder (Secretary), American Nuclear Society
Amir Afzali, Southern Company
Robert Bari, Brookhaven National Laboratory
Robert Budnitz, Lawrence Berkeley National Laboratory (retired)
George Flanagan, Individual
Michelle French, WECTEC
Dennis Henneke (Observer), GE Hitachi
Calvin Hopper (Observer), Individual
N. Prasad Kadambi (Observer), Kadambi Engineering Consultants
Mark Linn, Oak Ridge National Laboratory
Jean-Francois (Jef), Lucchini, Los Alamos National Laboratory
Charles (Chip) Martin, Longenecker and Associates
Kathryn Murdoch, American Nuclear Society
John Nakoski, U.S. Nuclear Regulatory Commission
Frances Pimentel (Liaison), Nuclear Energy Institute
Andrew Smetana, Savannah River National Laboratory
Andrew Sowder, Electric Power Research Institute
Donald Spellman, Xcel Engineering
Steven Stamm, Individual
William Turkowski, Westinghouse Electric Company, LLC
Larry Wetzel, BWX Technologies, Inc.

Others Present (7)
Allyson Byk, American Society of Mechanical Engineers (ASME)
Ronald Lippy, ASME Board on Nuclear Codes and Standards Vice Chair
Louise Lund, U.S. Nuclear Regulatory Commission
Matthew Denman, Kairos Power
Robert Penn, ANS Bylaws & Rules Chair
Robert Roche-Rivera (Observer), U.S. Nuclear Regulatory Commission
Thomas Vogan, ASME Board on Nuclear Codes and Standards Chair

1. Welcome and Roll Call

SB roster for reference -- Attachment 1
SB Chair Donald Eggett called the meeting to order. Roll call was taken and a quorum was achieved.

2. Approval of Agenda

Donald Eggett, SB Chair, reviewed the agenda and noted that a presentation from the ASME Board on Nuclear Codes and Standards (BNCS) is planned during today's meeting with a copy of the report from the BNCS will be provided to all attendees. He recognized that the agenda is extremely heavy and will need to make sure the discussions are timely and constructive. Some items may only have time to discuss at a high level and will need to be discussed in greater detail at another opportunity.

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

3. SB Chair Report

A. Report to the Board of Directors

Donald Eggett recognized the new leadership on three consensus committees—the Large Light Water Reactor Consensus Committee (LLWRCC); the Fuel, Waste, and Decommissioning Consensus Committee (FWDCC); and the Nonreactor Nuclear Facilities Consensus Committee (NRNFCC). Robert Budnitz will be stepping down from the ANS/ASME Joint Committee on Nuclear Risk Management (JCNRM) as co-chair. A process is currently underway for his replacement. Eggett continued by recognizing the importance of engaging young professionals in Society activities and into standards work. Lastly, he recognized standards action successes including no delinquent standards.

See Eggett's report to the ANS Board of Directors for the full details – Attachment 2.

B. Virtual Meeting with ANS President Dunzik-Gougar

Eggett reported that the meeting with ANS President Mary Lou Dunzik-Gougar went very well and that she was very supportive of our efforts. Recruiting additional volunteers was discussed. Dunzik-Gougar sees a double focus to target soliciting volunteers for the current fleet and separately for advanced reactors. The need for a standard's volunteer database was also discussed and will need to be pursued when ANS decides on maintaining ANS Collaborate. Eggett also shared the potential need to broaden the membership of the SB with Dunzik-Gougar. See Attachment 3 for a summary of the meeting with ANS President Dunzik-Gougar for additional details.

C. Report from ANS President's Special Session

Eggett stated that the President's Special Session went well. Schroeder distributed the session presentation during the meeting (see session presentation available via link to the SB library on ANS Collaborate) to provide members more details on the session.

D. Summary of Team Building Meetings with DOE/NRC/NEI/other SDOs

See Attachment 4 for a summary of team building meetings with the U.S. Department of Energy (DOE), U.S. Nuclear Regulatory Commission (NRC), Nuclear Energy Institute (NEI), and other standard development organizations (SDOs). The meetings allowed for better coordination with industry partners. A focus with DOE and NRC was to ensure good representation on ANS standards committees and working groups. Louise Lund, NRC Standards Executive, stated that she finds it very beneficial to attend standards meetings and confirmed that they have been looking at their representation on different standards groups. Eggett continued that there is much going on in the nuclear industry and recognized the importance of working with NEI. The meeting with NEI provided an opportunity to discuss follow up actions from the ANS/NEI

Advanced Reactors Standards Needs Workshop in June 2020 and the need for an industry strategic working group. The sentiment from all was that future meetings would be beneficial.

E. NRC Standards Forum Report (Link to Forum Notice with presentations)
The NRC held their Standards Forum on October 13, 2020. Eggett thought that the Standards Forum went very well. ANS had four presenters. Besides Eggett, presenters included Robert Budnitz, George Flanagan, and Prasad Kadambi. Lund thanked ANS for their presentations and engagement at the Forum. She stated that the ANS/NEI workshop in the summer was helpful to move things along. The concern is how to expedite standards needed now and in the future. When questioned, Lund stated that NRC usually endorses standards through regulatory guides. Early engagement of NRC in the development process is helpful to aid in the endorsement process. Lund added that she is working with the Institute of Electrical and Electronics Engineers (IEEE) to consolidate their standards endorsed in the regulatory framework. Donald Spellman offered to follow up with IEEE on this effort.

ACTION ITEM 11/2020-01: Donald Spellman to check with IEEE for feedback on consolidating standards endorsed by the NRC. DUE DATE: February 1, 2021

Budnitz had two takeaways from the Standards Forum—1) the need for a list of new and/or revised high-priority standards for advanced reactors, and 2) the need for harmonization of standards. Spellman added that international standards also need to be harmonized for export and import. Chip Martin is a member of the ASME Nuclear Quality Assurance (NQA) Committee and informed members that they are looking at harmonization. Eggett recognized the need for harmonization and coordination with other SDOs. He believes this will be captured in other discussions later in the meeting.

Robert Roche-Rivera is preparing a summary of the Standards Forum which will include action items. The summary will be out in the near future. The summary will include a packet with the questions from the Forum. Roche-Rivera provided the link to the Standards Forum webpage that captures the agenda, presentations, and where the summary will be provided when available.

F. Advanced Reactor Standards Team Building and Path Forward
[Follow up to ANS/NEI Advanced Reactor Standards Needs Virtual Workshop 6/23/20 and NEI 19-03 (Rev. 1)] NEI 19-03 (Rev.1), "Advanced Reactors Codes and Standards Needs Assessment," provides a snapshot on advanced reactor standards' needs. Carl Mazzola has reviewed the NEI report as an independent assessment and on how it may impact ANS standards with respect to all consensus committees. It was recognized that follow up was needed to capture benefits from the ANS/NEI Advanced Reactor Standards Needs Workshop held in June 2020. A proposal to continue this effort will be discussed under agenda item 9B.

G. General Comments on Various SB Initiatives
Eggett questioned consensus committee chairs whether they have determined if there is a need for new standards that support advanced reactors. Mazzola reported that the Environmental and Siting Consensus Committee (ESCC) has started this discussion. The ESCC feels that environmental and siting crosscuts any technology (e.g., development of site envelope). With advanced reactors increased safety, there may be different sites considered for advanced reactors needing different standards. The emergency planning zones (and emergency planning procedures) would be far different for advanced reactors due to the reduced probability of a large radioactive release. Mazzola suggested that consensus committee chairs should be

tasked with looking at NEI 19-03 (Rev. 1) and come up with a list of new standards projects or revisions of current standards that meet the needs of advanced reactors. Members questioned whether this effort falls under the Internal Communications Task Group (ICTG) to facilitate.

The following motion was made and seconded:

MOTION:
The ICTG to facilitate a review of NEI-19-03 (Rev. 1) by all eight consensus committees to identify additional standards in their program of work that may be needed to support the standard's needs (new and/or revised) for the advanced reactor initiative.

The motion was approved with 1 opposed vote and 1 abstained vote.

ACTION ITEM 11/2020-02: ICTG to facilitate a review of NEI 19-03 (Rev. 1) by all eight consensus committees to identify additional standards in their program of work that may support the standard's needs (new and/or revised) of the advanced reactor initiative. DUE DATE: June 1, 2021

4. SB Vice Chair Report

Carl Mazzola, SB Vice Chair, provided members an update on the following:

A. Update of Standards Committee Strategic Plan and Accompanying SMART Matrix to Align with ANS 2020 Change Plan
An update of the Standards Committee Strategic Plan and accompanying SMART Matrix has been initiated. The 2020 ANS Change Plan and the ANS Strategic Plan is being reviewed to ensure alignment.

B. Reformation of External Communications Task Group
The External Communications Task Group (ECTG) is being rejuvenated by Donald Spellman who will discuss his efforts in greater detail under task group reports.

C. Recent 10 CFR 830 Opportunity and Potential Impact on ANS Standards initiatives
A recently issued revision of 10 CFR 830, "Nuclear Safety Management," after 19 years, provides an opportunity for standards development. The NRNFCC is already considering options and discussed the development of a standard to address Unreviewed Safety Questions (USQs). Mark Linn agreed that the terminology in 10 CFR 830 is not clear and a standard would be helpful.

D. 2020 Standards Service Award Virtual Presentations
Mazzola presented the 2020 Standards Service Award to George Flanagan and Prasad Kadambi and read their citations. Both long-time Standards Committee members were thanked for their service.

E. 2021 Standards Service Award Selection Committee
The selection committee for the 2021 Standards Service Award includes Carl Mazzola (lead), Robert Budnitz, John Nakoski, William Turkowski, and Larry Wetzel. Nominations for the 2021 award are due March 1, but extensions have traditionally been offered until the end of March. The selection committee's recommendation is provided to the SB Chair by May 1 and confirmed by the SB in June with the award presented at the November winter meeting.

F. Miscellaneous
Mazzola indicated that he has enjoyed his new role as SB Vice Chair and working with Eggett.

5. Secretary Report (Reports Combined – Attachment 5 A-C)

A. Staff report (includes ANSI audit report)

Pat Schroeder summarized her secretary and sales report. As requested, she researched ANS adopting International Organization of Standardization (ISO) standards. While logistically this is possible, financially there is likely no benefit. After royalty cuts, ANS would be left with intake of 10% revenue for the bulk of the sales. ANS would be required to track the sale of ISO standards from multiple resellers and to prepare royalty reports to pay ANSI 50% of gross sales. The American Society for Testing and Materials' (ASTM) experience is that the program could not sustain itself. Schroeder did not feel it would be financially beneficial to pursue this program.

The volunteer database continues to remain on the wish list. The ANS president directed that a business case be prepared once a decision is made on whether ANS would be retaining its ANS Collaborate system.

Much has changed at ANS in the last year. A reorganization of the Society moved the standards program out of the Publications Department to the Meetings and Programs Department lead by Paula Cappelletti. John Fabian was promoted to the Director, Publications Department, and no longer provides support to standards. Kathryn Murdoch is now full time and has completely taken over facilitating volunteer placement including associate members, all volunteer documentation, and management of ANS Collaborate for all standards committees. Most ANS staff have been working remotely since March 2020 due to COVID-19 social distancing. Over the years, standards staff have taken on more responsibilities due to internal changes, new initiatives, maintaining Collaborate for 150+ groups, and the doubling of consensus committees, as well as additions of special committees and task groups. Staff support at the ANS winter meeting was doubled to provide staff support at additional meetings.

The standards program was audited by the American National Standards Institute (ANSI) in August/September 2020. Five standards were chosen for a detailed audit. ANSI also reviewed a limited sample of administrative ballots and reviewed all rules, policies, and procedures. ANSI found insignificant findings on ballots. One finding was recognizing administratively withdrawn standards on ANSI documents. Since ANSI does not recognize withdrawn standards, they cannot be listed on ANSI documentation. ANSI provided ANS a list of changes they want incorporated into our accredited procedures and policies. Many of the requested changes are to document existing procedures and those that will have no operational impact. One recommendation is to shorten the 60-day ballot period and to revise the appeals policy to provide more detail as well as to change the makeup of the administrative appeal committee to be performed by noninvolved members—possibly by members from a different consensus committee. ANSI also suggested that ANS consider the option of not offering a technical appeal. The revised rules and procedures will need to be submitted to ANSI for their approval. The audit will remain open until revised procedures are approved by ANSI. Schroeder will work on incorporating ANSI's requested changes and submit revised documents to the Policy Task Group for review prior to a ballot being issued to the SB.

ACTION ITEM 11/2020-03: Pat Schroeder to incorporate ANSI's recommendations into the Standards Committee Rules and Procedures and Policy Manual and provide to the Policy Task Group for review before issuing to the full SB for approval. DUE DATE: February 1, 2021

The full audit report is included in the staff/secretary report as Attachment 5.

B. Sales Report
Schroeder reported that sales have been a little flat this year. Typically, ANS has at least one high-quantity order of standards for a workshop or industry training. ANS did not have this sale in 2020, likely due to COVID-19 restrictions. Royalty is paid by resellers quarterly. The highest royalty is usually received in the last quarter of the year. It is possible that the royalty for 2020 will come in just short of the forecasted budget.

C. Associate Member Report
The Associate Member Program continues to grow. Working group chairs have placed 82 young professionals of which 14 are now full members. An additional 7 associate members are members of multiple working groups and have been upgraded on one or more groups. Currently, the Standards Committee has 49 associate members with 19 associate members having resigned or were dropped for lack of participation. Working group chairs were contacted earlier in the year for a progress update on associate member participation. A follow up is currently in the works with a request for working group chairs to consider moving active associate members to full membership. Of the 49 current associate members, 22 (45%) are assigned under the Nuclear Criticality Safety Consensus Committee (NCSCC). Typically, no more than 2 associate members are placed in the same working group. Several NCSCC working groups have 2 or more associate members and may be unable to accept more. Placements outside of NCSCC are challenging to find an active group with available associate member slots. Staff would like to hold off on additional broadcasts of the Associate Member Program to allow a few current associate members to be upgraded and to open additional spots for placement.

6. Review of Open Action Item Report

A. 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 6/2019-07 to evaluate the current balance of interest definitions (Annex A) and propose a revision of the "Individual" category:

ACTION ITEM 11/2020-04: Donald Spellman to check with IEEE to see how they classify consensus committee members that are retired vs. self-employed. DUE DATE: March 1, 2021

B. Concurrence to Close Report of Completed Action Items
Members were asked to take a few minutes to review the report of completed action items (see Attachment 6). The following motion was then made:

MOTION:
To close the list of completed action items.

The motion was unanimously approved.

7. ASME Board of Nuclear Codes & Standards (BNCS) Report (Attachment 7)

BNCS Chair Thomas Vogan provided an overview of ASME nuclear related standards. The BNCS charter includes the management and oversight of committees developing nuclear-related standards. Like ANS, they follow ANSI requirements. Members on consensus committees and their subordinate groups are not required to be members of ASME. The committees strive to maintain rapid development of standards. ASME's committee organizational structure was reviewed.

Ronald Libby, BNCS Vice Chair, stated that they are looking at how they can design and build for advanced reactors. System functions are being considered. The BNCS has had 3-4 meetings to look at how to reduce cost while maintaining public safety.

Allison Byk, ASME Director of Nuclear Codes and Standards, provided a summary of the BNCS's last meeting at the end of October 2020 and other recent activities. Key topics were discussed on the needs of advanced reactor developers. A BNCS workshop was held November 8-9, 2020, for the advanced reactor vendors. The workshop concentrated on opening up communication between code committees and advanced reactor developers. ASME initiated its "ASME Anywhere" Plan—all events are planned as virtual through 2021. BCNS had a joint meeting with the Boiler Pressure Vessel Code (BPVC) group focused on exchange of technology. Vogan suggested that a joint technical session between the ANS SB and the BNCS could be considered. Eggett and Spellman will work with Vogan to evaluate ASME and ANS standards for overlap. Vogan invited Eggett to make a presentation on behalf of ANS at the next BNCS meeting scheduled for February 24-25, 2021.

ACTION ITEM 11/2020-04: Donald Eggett and Donald Spellman to work with Thomas Vogan on evaluating ANS and ASME standards for overlap.
DUE DATE: June 1, 2021

8. Standards Committee Strategic Plan Report/SMART Matrix Progress

Progress on Goals & Objectives--SMART Matrix (Smart Matrix - Attachment 8)

Steven Stamm explained that he cleaned up the SMART Matrix to make it easier to read. He suggested that any significant changes to the matrix be addressed in the next strategic plan. Stamm worked with the External Communication Task Group (ECTG) and the Risk-informed, Performance-based Principles and Policies Committee (RP3C) Chairs to realign their goals. Both the RP3C and ECTG have a lot on their plate. Stamm did not add any due dates because actions have not been previously scheduled effectively, and he feels it was best to just monitor progress. Prasad Kadambi, RP3C Chair, confirmed that he supports what is currently in the SMART Matrix for RP3C.

Stamm stated that there are some differences between what was intended with Item D.6 under Goal #1. The intent was to advertise what ANS is doing to incorporate risk-informed, performance-based (RIPB) methods in ANS standards, not to train the industry. Stamm added that we would need to evaluate whether RP3C's Guidance Document should be sold. Kadambi's perspective is that socializing the Guidance Document externally could help encourage more participation on the Standards Committee.

Donald Spellman stated that he is trying to lay out a plan for the ECTG. He first needs to get a good list of agency contacts, then develop a survey and a plan for consensus committees to establish communication with agencies. Spellman will develop a presentation to interact with other organizations similar to ASME's presentation earlier today.

ACTION ITEM 11/2020-05: Donald Spellman to develop a presentation to interact with other organizations similar to ASME's presentation provided at the 11/17/20 SB meeting. The presentation needs to be closely coordinated with the Standard Board Chair and other proposed strategic actions to ensure coordination with SB industry initiatives.
DUE DATE: June 1, 2021

Stamm reported at the kickoff meeting held October 27, 2020, to initiate a revision of the Standards Committee Strategic Plan. He believes that the current goals are good for next year, but new initiatives will be put in place for the next five-year plan with a new SMART Matrix prepared. The next meeting is scheduled for November 24, 2020, to work on initiatives. The goal is to complete the plan with SB approval by the beginning of June 2021. Stamm will have the responsible parties concur with the actions before issuing for ballot. The Society's strategic plan and 2020 Change Plan were reviewed, and a list was made of anything that would be indicative of what one would want from ANS standards for the future.

9. Current and Emergent Issues

A. Objection to Implement Bylaw Change to Increase SB Membership—Open discussion on the bases for this proposal and best resolution
- Right Makeup of SB membership
- Participation of SB members

A proposal to increase SB membership was issued for ballot (link to ballot). The ballot closed with 12 approved votes and 3 negative votes. Two of the objectors submitted a motion (See Attachment 9) for discussion.

Donald Eggett opened the discussion on a change to the SB rule (R7 of the ANS Bylaws and Rules) to increase appointed members. He questioned whether the SB has the right representation. Everyone plays a role based on their background, but we do not have representation from young members and reactor vendors. The ANS Board of Directors added a seat in 2020 on Society's the Board for young membership representation and Eggett feels strongly that the SB needs to find a way to engage a young professional on the SB as well. Increasing membership would also allow for a broader industry representation.

Considerable time was spent discussing this issue of increasing SB members. The following points were made:

- There was no discussion on the proposal before the ballot was issued.
- An evaluation should be made before making this decision.
- The SB does not need to have broad subject matter expertise as this is the role of the consensus committees.
- The SB's primary role is to certify that an action meets our rules, procedures, and policies.
- Additional members could present the opportunity to stack the committee although it was recognized that the staggered three-year term of appointed members minimizes the potential impact.
- Additional members could increase the length of meetings and lessen the impact of everyone's ballot.
- The SB approving a change to the membership rule is merely a recommendation to the ANS Bylaws and Rules Committee.
- Broader industry participation can be solved by the ECTG through liaisons; however, use of liaisons' engagement thus far has been poor.
- Recommendations can be made to the ANS President to appoint young professionals.
- The role of observer or liaison can be used to bring on young professionals and foster additional industry collaboration.

The word "reconsider" in the submitted motion (Attachment 9) was checked. It was determined that the appropriate word would be "resend." The following amended motion was made and seconded:

MOTION:
To resend the SB ballot on the proposed change to R7 on SB membership.

The motion passed with 11 affirmative votes. The recommendation to increase SB membership will not be sent to the Bylaws and Rules Committee.

Andrew Smetana questioned whether a motion was needed for the SB Chair to bring on liaisons and observers. The SB as a whole thought it would be good to see the support of the SB members for this action formally through a motion. It was noted that the current SB makeup includes a significant number of national laboratory representatives. As such, it was pointed out that more industry representation, specifically those involved in new reactors, and more diversity would be welcomed.

The following motion was made and seconded:

MOTION:
For the SB Chair to work within the rules of the SB to expand participation of younger members of the society and from the industry.

The motion was unanimously approved.

B. Approaches to Obtain Industry Standards Needs

- Centralized Industry Steering Committee
  (Attachment 10: Proposal)
  This discussion was postponed due to limited time.

- SB Technical Advisory Group
  (Attachment 11: Pros/Cons)
  This discussion was postponed due to limited time.

C. How SCoRA and RP3C Fits into the PINS Process
Members discussed the review process for Project Initiation Notification System (PINS) forms for projects that indicate that RIPB methods will be used. Kadambi, the RP3C Chair, reviews the form on behalf of RP3C. Likewise, Robert Budnitz, reviews PINS on behalf of the Joint Committee on Nuclear Risk Management (JCNRM) and its Subcommittee on Risk Applications (SCoRA). The chair of SCoRA is a member of RP3C to facilitate communication. Both Kadambi and Budnitz feel their review is sufficient. Steven Stamm added that the SB has previously stated that the primary direction on RIPB methods should be from the RP3C so that working groups only get directions from one group (with emphasis). Members agreed that the process is working well now and does not need to change.

D. Initiating New Standards Before an Established Standardized Practice (per ACTION ITEM 6/2020-16)
Budnitz explained that this is an intellectual question and as a general policy, we should not allow a standard to be initiated without some basis. In this case, it would be appropriate to issue a trial-use standard. Kadambi agreed that a basis is needed for standardization and felt that the basis could employ methods and successes from other fields—an example is “system engineering practice.”

Mark Linn feels that proposed standard ANS-30.1, “Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs,” is based on well-documented industry practice. Matthew Denman, invited guest and principal reliability engineer at Kairos, shared his concerns with ANS-

30.1. Denman sees the standard going out beyond the state of nuclear practice and "takes them into a tailspin and hamstrings them into an antiquated model." He noted that it's dangerous to use methodology outside of nuclear, and Kairos does not want to be hounded by regulators as to why they don't align with the standard. Denman also said that you can give the industry a trial-use document, but they are not going to use it unless the document is timely for their individual needs. He added that the SB needs to listen to the part of the industry that is the future. Dennis Henneke agreed with Denman and provided specifics why ANS-30.1 does not match with General Electric Hitachi's (GEH) design process. These specific comments by Kairos and GEH have already been submitted to the ANS-30.1 Working Group for resolution.

Linn explained that many of the comments on the preliminary review of the ANS-30.1 draft state that it is a competitor to NEI 18.04, "Risk-Informed Performance-Based Technology Guidance for Non-Light Water Reactors," and thus becomes a potential detriment. Linn has looked at and compared both documents and concludes that they are very compatible with nearly identical wording. An example was provided which requires users to have a flow down process. ANS-30.1 says if you can meet the four requirements within, you can say you have a robust defense-in-depth design. Denman questioned why he needs ANS-30.1 when Regulatory Guide 1.233, "Guidance for a Technology-Inclusive, Risk-Informed, and Performance-Based Methodology to Inform the Licensing Basis and Content of Applications for Licenses, Certifications, and Approvals for Non-Light Water Reactors," does that for him. Denman's final point is he sees no benefit to do this cross mapping no matter how marginal.

Eggett closed the discussion stating that Linn is in the process of developing comment responses to each of the comments received and will be revising the draft standard. He would like each reactor vendor to look at the upcoming revision (Rev 3) in anticipation that they will be satisfied.

E. Update on Revision of ANSI/ANS-53.1-2011 (R2016) (Modular Helium-Cooled Reactor Plants)
George Flanagan reported that a revision of ANSI/ANS-53.1-2011 (R2016), "Nuclear Safety Design Process for Modular Helium-Cooled Reactor Plants," is being initiated by James August to align with NEI 18-04. August is in the process of reforming the working group. A decision will be made on whether the standard should be reaffirmed to keep it current while work on the revision is completed.

F. Fee-Based Training Proposal (Attachment 12)
This discussion was postponed due to limited time.

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

A. RP3C Meeting Report
RP3C Chair, Prasad Kadambi, provided a report (See Attachment 13) to capture the essence of discussions from the RP3C's meeting the previous day.

B. RIPB Guidance Document Status and Training Plan
A significant discussion item at the RP3C meeting was the RIPB Guidance Document. Kadambi explained that the Guidance Document was meant to help consensus committee working groups get started in their efforts to incorporate RIPB concepts. It was not intended to be a handbook with full details. The details are incorporated by reference within various documents and explained the role they play. The Guidance Document was intentionally written at a very high level. Kadambi recognized several objections to the Guidance Document, but he believes that the information within the references address the questions and concerns.

Budnitz is one of the individual's with objections to the Guidance Document as currently written. His bottom line is that the document is a draft and not ready for prime time and should not be touted as a final document. The document does not provide the guidance to working groups as needed. Henneke agreed with Budnitz, but he sees value in this document if completed properly. He thinks that the document needs to follow a review and concurrence process and be balloted by the full RP3C.

Kadambi explained that the RP3C was never intended to be like a consensus committee and therefore is not bound by the same kind of rules. The existing rules do not provide for balloting. RP3C works more informally than consensus committees. Most of what RP3C does is done by acceptance of the broad membership through negative consent. The Guidance Document was sent to the RP3C and to the SB. Everyone was kept informed with an opportunity to comment. Several members feel that the document lacks quality because the document did not go through a formal written review and approval process. Eggett summarized the sentiments that he heard at yesterday's RP3C meeting and those expressed here today in that the Guidance Document is incomplete and that all comments need to be addressed.

The following motion was made and seconded:

MOTION:
The SB to direct that the RP3C does not send anything to the SB for approval until voted by the RP3C with comments and objections addressed.

The motion was approved.

C. CC/RP3C Collaboration (Closed Action Item 11/2018-14)
See Attachments 14 and 15 for reference.

D. RIPB Community of Practice Report
RP3C's Community of Practice (CoP) was launched in February 2020 and has had 8 sessions. No CoPs will be held in November and December 2020 due to the holidays. The CoPs will resume in January 2021.

11. Consensus Committee Chair Reports

Due to limited time, members were asked to read through the consensus committee reports at their convenience.

A. Environmental and Siting Consensus Committee (ESCC) (Attachment 16)

B. Fuel, Waste, and Decommissioning Consensus Committee (FWDCC) (Attachment 17)

C. Joint Committee on Nuclear Risk Management (JCNRM) (Attachment 18)

D. Large Light Water Reactor Consensus Committee (LLWRCC) (Attachment 19)

E. Nonreactor Nuclear Facilities Consensus Committee (NRNFCC) (Attachment 20)

F. Nuclear Criticality Safety Consensus Committee (NCSCC) (Attachment 21)

G. Research and Advanced Reactors Consensus Committee (RARCC) (Attachment 22)

H. Safety and Radiological Analyses Consensus Committee (SRACC) (Attachment 23)

12. Other Committee Reports

A. SB Task Group Reports

- Proposal to Revise Task Group Charters (Attachment 24)
  With limited time and Donald Spellman not available to explain his proposed revision to the ECTG's charter, this task group charter was not reviewed.

- External Communications Task Group Report
  Spellman's proposed revision to the liaison policy (Attachment 25) was not reviewed in his absence. One of Spellman's initiatives for the ECTG is to solicit liaisons. Before soliciting liaisons, Spellman is recommending a revision to the liaison policy (see Attachment 25) to clarify the liaison role. Schroeder believes that finalizing the liaison from the American Concrete Institute (ACI) was on hold until the liaison policy is revised. Mazzola questioned whether an interface with the American Society of Civil Engineers (ASCE) should be to the SB or directly to the ESCC. With no other consensus committee chairs seeing a need for a liaison with the ASCE, Mazzola stated that he would pursue Michael Salmon, as a direct liaison to the ESCC.

ACTION ITEM: 11/2020-06: Carl Mazzola to pursue Michael Salmon as a direct liaison for ASCE to the ESCC. DUE DATE: March 1, 2021

- Internal Communications Task Group

  - Professional Division (PD)/Standards Committee (SC) Liaisons Program Reports
    See Attachment 26 for the plan and list of liaisons.

  - Improved Effectiveness of Professional Division Liaison (Attachment 27)
    Steven Stamm felt that it was time to discuss the effectiveness of the Professional Division (PD)/ Standards Committee (SC) Liaison Program. The program has been in effect for several years. Considerable effort is being expended without much benefit. Stamm questioned what can be given to the PDs of benefit and what responsibilities are reasonable. William Turkowski added that the program plan with full details on roles and responsibilities has been available and provided half a dozen times, if not more, but it is not getting any traction. Donald Eggett, Carl Mazzola, Stamm, and Turkowski will discuss the PD Liaison Program informally after this meeting.

ACTION ITEM 11/2020-07: Donald Eggett, Carl Mazzola, Steven Stamm, and William Turkowski to discuss the PD Liaison Program after this meeting. DUE DATE: March 1, 2021

B. Liaison Reports (External Liaisons to the SB)
No reports provided.

- ACI: Open

- ANSI: Prasad Kadambi
- ASCE: Carl Mazzola
- EPRI: Andrew Sowder
- HPS: Ali Simpkins
- IEEE/NPEC: Donald Spellman (SB liaison to NPEC)/Richard Wood (NPEC liaison to SB)
- INPO: Donald Eggett
- ISO/TC 85/SC-6: Donald Spellman
- NCRP: Open
- NEI: Frances Pimental
- NFPA: Open

13. Review of Action Items from This Meeting

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

14. Other Business

Larry Wetzel let the members know that the NCSCC discussed the need to make standards gender-neutral by avoiding the use of male and female pronouns. Members agreed.

15. Future Meetings

No decision has been made on whether the June 2021 meeting will need to be conducted virtually. The SB will meet for a full day on Tuesday at both 2021 national meetings as scheduled below either virtually or physically:

- 2021 ANS Annual Meeting at the Omni/Convention Center in Providence, RI, from June 13-17.
- 2021 ANS Winter Meeting at the Marriott Wardman Park Hotel in Washington, D.C. from October 31–November 4.

16. Adjournment

The meeting was adjourned.

Standards Board Action Item Status Report at 11/17/20 Meeting			
Action Item	**Description**	**Responsibility**	**Status/Comments /Reassignments**
11/2020-01	Donald Spellman to check with IEEE for feedback on consolidating standards endorsed by the NRC. DUE DATE: February 1, 2021	Spellman	OPEN
11/2020-02	ICTG to facilitate a review of NEI 19-03 (Rev. 1) by all eight consensus committees to identify additional standards in their program of work that may support the standards needs (new or revised) of the advanced reactor initiative. DUE DATE: June 1, 2021	Turkowski	OPEN
11/2020-03	Pat Schroeder to incorporate ANSI's recommendations into the Standards Committee Rules and Procedures and Policy Manual and provide to the Policy Task Group for review before issuing to the full SB for approval. DUE DATE: February 1, 2021	Schroeder	OPEN
11/2020-04	Donald Eggett and Donald Spellman to work with Thomas Vogan on evaluating ANS and ASME standards for overlap. DUE DATE: June 1, 2021	Eggett, Spellman	OPEN
11/2020-05	Donald Spellman to develop a presentation to interact with other organizations similar to ASME's presentation provided at the 11/17/20 SB meeting. The presentation needs to be closely coordinated with the Standard Board Chair and other proposed strategic actions to ensure coordination with SB industry initiatives. DUE DATE: June 1, 2021	Spellman Eggett	OPEN
11/2020-06	Carl Mazzola to pursue Michael Salmon as a direct liaison for ASCE to the ESCC. DUE DATE: March 1, 2021	Mazzola	OPEN
11/2020-07	Donald Eggett, Carl Mazzola, Steven Stamm, and William Turkowski to discuss the PD Liaison Program after this meeting. DUE DATE: March 1, 2021	Eggett, Mazzola, Stamm, Turkowski	OPEN
6/2020-01	George Flanagan to work with Pat Schroeder for a promotion to solicit volunteers for advanced reactor standards when ready. DUE DATE: June1, 2021	Flanagan, Schroeder	OPEN
6/2020-02	Pat Schroeder to make sure that future election ballots of new members include resumes.	Schroeder	CLOSED
6/2020-03	Carl Mazzola to chair the 2021 Standards Service Selection Committee with support of Robert Budnitz, John Nakoski, William Turkowski, and Larry Wetzel. DUE DATE: May 1, 2021	Mazzola, Budnitz, Nakoski, Turkowski, Wetzel	OPEN
6/2020-04	Pat Schroeder to distribute the current ANS Change Plan to members.	Schroeder	CLOSED
6/2020-05	Pat Schroeder to add JCNRM to the 2020 Consensus Committee Evaluation Report with information from Robert Budnitz. DUE DATE: January 31, 2021	Budnitz, Schroeder	OPEN

Standards Board Action Item Status Report at 11/17/20 Meeting			
Action Item	**Description**	**Responsibility**	**Status/Comments /Reassignments**
6/2020-06	Ed Wallace to help Mark Linn respond to comments related to NEI18-04 from the RARCC preliminary ballot of ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Safety Designs." DUE DATE: February 1, 2021	Wallace, Linn	OPEN
6/2020-07	Pat Schroeder to draft an appeals policy and send to Steven Stamm, Robert Budnitz, George Flanagan and Carl Mazzola to review. DUE DATE: March 1, 2021	Schroeder, Stamm, Budnitz, Flanagan, Mazzola	OPEN Was put on hold due to ANSI request to wait until after audit report. Audit report received in October requesting changes to policy.
6/2020-08	James O'Brien and Prasad Kadambi to make a brief presentation on risk-informed, performance-based methods to the ANS-19 Subcommittee on Reactor Physics at their next meeting during the ANS Winter Meeting. DUE DATE: November 1, 2021	O'Brien, Kadambi	OPEN
6/2020-09	Pat Schroeder to include a discussion on the LLWRCC agenda for the July teleconference to discuss the path forward for ANS-3.8.7, "Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities."	Schroeder	CLOSED Included on July 2020 and November 2020 agenda.
6/2020-10	Pat Schroeder to provide Michelle French the history of ANS-3.8.7, "Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities," and letter from NEI with their position on draft standard ANS-3.8.7.	Schroeder	CLOSED
6/2020-11	Prasad Kadambi to provide his white paper on the LMP to Amir Afzali and George Flanagan to determine if it can be used as guidance on how and where NEI 18-04, "Risk-Informed Performance-Based Technology Guidance for Non-Light Water Reactors," should be used in ANS standards (Related to Action Item 11/2019-18).	Kadambi, Afzali, Flanagan	CLOSED
6/2020-12	Steven Stamm to work with Prasad Kadambi on updating RP3C actions on the SMART Matrix with the proposed changes to include specificity.	Stamm, Kadambi	CLOSED
6/2020-13	Donald Spellman to work with Steven Stamm to update the actions for the External Communications Task Group Chair.	Spellman, Stamm	CLOSED
6/2020-14	Steven Stamm to send the revised SMART Matrix to the SB for review and comment.	Stamm	CLOSED
6/2020-15	Prasad Kadambi to provide RP3C products to the Divisions for their information and feedback. DUE DATE: November 1, 2021	Kadambi	OPEN Kadambi will work with Turkowski to make a presentation at a meeting (Guidance Document and the CoP presentations to be included).

Standards Board Action Item Status Report at 11/17/20 Meeting			
Action Item	**Description**	**Responsibility**	**Status/Comments /Reassignments**
6/2020-16	Pat Schroeder to add an agenda item for the November 2020 meeting to discuss initiating a new standard when a standardized practice has not been established.	Schroeder	CLOSED
6/2020-17	Donald Spellman to work with Pat Schroeder to explore the benefit of ANS on adopting ISO standards.	Spellman, Schroeder	CLOSED ANSI & ASTM/NTAG agreements required. ANSI gets 50% of gross revenue. Typically, 40% goes to resellers. ANS would get 10% for the bulk of sales but would need to factor in additional staff costs needed for accounting to generate royalty reports/issue checks or wire transfers. ASTMs experience is that program to issue joint standards could not be financially supported.
11/2019-06	Donald Eggett to discuss the standards volunteer database with Mary Lou Dunzik-Gougar to gain her support.	Eggett	CLOSED Eggett, Mazzola held call with ANS president.
11/2019-16	Pat Schroeder to draft a letter of invite on behalf of Donald Eggett to send to INPO once an INPO contact is identified. DUE DATE: This action will be CLOSED ~two weeks after contact identified.	Schroeder	OPEN This action item was amended to the current SB Chair, D. Eggett, to follow up.
11/2019-18	Amir Afzali, George Flanagan, and Prasad Kadambi to prepare a white paper on how and where NEI 18-04 should be used in ANS standards.	Afzali, Flanagan, Kadambi	CLOSED
11/2019-19	Robert Roche-Rivera to check with NRC and let the SB know when a stakeholders meeting is being held on 10 CFR Part 53, Risk-informed, Technology Inclusive Regulatory Framework for Advanced Reactors Rulemaking.	Roche-Rivera	CLOSED
6/2019-04	Donald Eggett to contact Mike Tschiltz at NEI to inquire about a new liaison as well as on the availability of their standards priority survey feedback.	Eggett	CLOSED Eggett held call with NEI on 10/2/20.
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: June 1, 2021	Eggett, Flanagan, Kadambi, Linn	OPEN ASME has the same issue; however, they allow self-employed to be categorized in the category of the majority of their work. Spellman offered to check with IEEE (see new ACTION ITEM 11/2020-04).
11/2018-21	John Nakoski to work on the appointment of an NRC representative to the LLWRCC.	Nakoski	CLOSED David Deslauriers was appointed and approved as the NRC rep on the LLWRCC.
6/2018-02	Donald Eggett and Andrew Sowder to contact SB members on possible changes to industry priorities for standards development. DUE DATE: June 1, 2021	Eggett	OPEN A. Sowder offered to help D. Eggett.
6/2018-19	Donald Eggett to make some inquiries to identify a potential INPO liaison to the SB.	Eggett	CLOSED

ATTACHMENT 1

Standards Board Roster 10/31/20

	First Name	Last Name	Company	Role
1	Amir	Afzali	Southern Nuclear Operating Company	Member
2	Robert	Bari	Brookhaven National Laboratory	Member
3	Robert	Budnitz	Company for Individuals	Member
4	Donald	Eggett	Eggett Consulting LLC	Group Chair
5	George	Flanagan	Company for Individuals	Member
6	Michelle	French	WECTEC	Member
7	Mark	Linn	Oak Ridge National Laboratory	Member
8	Jean-Francois	Lucchini	Los Alamos National Laboratory	Member
9	Charles	Martin	Longenecker and Associates	Member
10	Carl	Mazzola	Project Enhancement Corporation	Vice-Chair
11	John	Nakoski	U.S. Nuclear Regulatory Commission	Member
12	Andrew	Smetana	Savannah River National Laboratory	Member
13	Andrew	Sowder	Electric Power Research Institute	Member
14	Donald	Spellman	Xcel Engineering	Member
15	Steven	Stamm	Company for Individuals	Member
16	William	Turkowski	Westinghouse Electric Co. LLC	Member
17	Larry	Wetzel	BWX Technologies, Inc.	Member

	Liaisons and Observers			
1	Dennis	Henneke	GE Hitachi	Observer
2	Calvin	Hopper	Company for Individuals	Observer
3	N. Prasad	Kadambi	Kadambi Engineering Consultants	Liaison
4	Frances	Pimentel	Nuclear Energy Institute	Liaison
5	William	Reuland	Company for Individuals	Observer
6	Robert	Roche-Rivera	U.S. Nuclear Regulatory Commission	Observer
7	Edward	Wallace	GNBC Associates	Observer

ATTACHMENT 2

Standards Board Informative Report to the ANS Board of Directors

from

Standards Board Chair Donald R. Eggett

November 2020

ANS/NEI Advanced Reactor Standards and Codes Workshop

With support from the ANS Standards Board, a joint American Nuclear Society (ANS) / Nuclear Energy Institute (NEI) virtual workshop on advanced reactor standards and codes was held on June 23, 2020. The workshop provided industry partners the opportunity to discuss advanced reactor codes and standard's needs. More than 400 attendees participated. A recap of the workshop, presentations, and the recordings (morning session & afternoon session) are publicly available.

ANS Presentations at NRC Standards Forum

The U.S. Nuclear Regulatory Commission held a Standards Forum on October 13, 2020. Held annually, the NRC Standards Forum aims to facilitate the identification of needed standards within the nuclear industry that are currently not being addressed by standards developing organizations and explore how to collaborate to accelerate their development; identify process improvements to ensure effective and timely standards development; exchange information across disciplines and stakeholders regarding standards for nuclear facilities; and encourage and provide an opportunity for engagement and networking amongst the standards development community. This year's forum continued discussions on advanced reactors and provided a platform to discuss use of risk-informed, performance-based methods to harmonize standards. Presentations were made on behalf of ANS by Standards Board Chair Donald Eggett, ANS Research and Advanced Reactors Consensus Committee Chair George Flanagan, ANS/ASME Joint Committee on Nuclear Risk Management Co-chair Robert Budnitz, and ANS Risk-informed Performance-based Principles and Policy Committee Chair N. Prasad Kadambi. The presentation slides have been posted to NRC's Forum Notice.

Industry Meetings Held to Facilitate Industry Collaboration

ANS Standards Board Chair Donald Eggett, Standards Board Vice Chair Carl Mazzola, with support from other Standards Board members held a series of meetings to facilitate communication and improve working relationships between ANS and industry partners on standards. Meetings were held with representatives from the American Society of Mechanical Engineers, Nuclear Energy Institute, U.S. Department of Energy, and U.S. Nuclear Regulatory Commission. The meetings were perceived as being very productive and will be conducted on a more frequent basis in the future.

Formation of an Industry Advanced Reactor Steering Committee

The Standards Board is considering the formation of an "industry advanced reactor steering committee" to help set priorities for the advanced reactor community, and in turn seek funding

from the U.S. Department of Energy to expedite these efforts. This strategic initiative was posed by the NRC to the ANS Standards Board officers at a collaborative meeting on September 10, 2020 between the two organizations. Wide industry representation would be sought and would include representatives from all SDOs and reactor vendors. The proposal is in its early, exploratory stage. Appropriate membership, objectives, and interests need to be further defined. ANS is looked to as having the lead in this effort.

New Consensus Committee Leadership

This year (2020) saw an unusual turnover in ANS consensus committee leadership. Three of the eight consensus committees elected new chairs and vice chairs including the Fuel, Waste, and Decommissioning Consensus Committee (FWDCC); Large Light Water Reactor Consensus Committee (LLWRCC), and the Nonreactor Nuclear Facilities Consensus Committee (NRNFCC). All 8 consensus committee chairs serve on the ANS Standards Board as ex officio members. The current consensus committee leadership is as follows:

Robert J. Budnitz
Lawrence Berkeley National Laboratory (retired)
ANS/ASME Joint Committee on Nuclear Risk Management

Michelle French
WECTEC
Large Light Water Reactor Consensus Committee

Jean-Francois Lucchini
Los Alamos National Laboratory
Fuel, Waste, and Decommissioning Consensus Committee

George F. Flanagan
Oak Ridge National Laboratory (retired)
Research and Advanced Reactors Consensus Committee

Charles "Chip" Martin
Longenecker and Associates
Nonreactor Nuclear Facilities Consensus Committee

Carl A. Mazzola
Project Enhancement Corporation
Environmental and Siting Consensus Committee

Andrew O. Smetana
Savannah River National Laboratory
Safety and Radiological Analyses Consensus Committee

Larry L. Wetzel
BWXT, Inc.
Nuclear Criticality Safety Consensus Committee

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. The following activities have been completed, or are in progress, to fulfill the committee's charter:

- A RIPB Guidance Document was prepared to identify roles and responsibilities and the process for using RIPB approaches. The guidance document titled "Incorporating Risk-Informed and Performance-Based Approaches/Attributes in ANS Standards" was issued for trial use in June 2019 and is being finalized. After it is issued, the Standards Board is considering sharing it with other SDOs.

- A RIPB Community of Practice (CoP) was launched to support knowledge sharing on the development and application of RIPB principles and practices within the nuclear industry. Starting in February 2020, the CoP has held monthly online collaboration meetings on the last Friday of every month, beginning at 3 p.m. eastern/12 p.m. pacific and lasting for about an hour. The CoP is open to all, members and nonmembers alike, interested in RIPB methods. Presentations and recordings are available on the RP3C webpage.
- A two-part training module was initiated May 2020 to provide guidance to ANS standards working groups on incorporation of RIPB methods into ANS standards.

Spotlighting Young Professionals in ANS Standards

The Standards Board launched the Young Professionals Participate in ANS Standards Program webpage in March 2020. The webpage recognizes young professionals involved in the ANS standards program. The site includes a photo of the individual along with a brief statement explaining how they became involved in the standards program and a little of their background. These individuals initially joined a standard's working group as a nonvoting Associate Member. Several of the individuals on the webpage are now full members. The Associate Member Program was created about 10 years ago at the request of the Young Member Group as a means to participate in standards with little to no experience. Presently, more than 40 Associate Members are engaged in our program and it is hoped that eventually many more young professionals will be included on the webpage and engaged in standards development.

American National Standards Institute Audit

The ANS standards program was audited by the American National Standards Institute (ANSI) September 2020, as part of its periodic audit as an ANSI-Accredited Standards Development Organization. The last ANS audit was conducted in 2015. The 2020 audit report concluded that ANS has a strong standards program. The report includes several suggestions for clarifications of rules, procedures, and policies; a few minor administrative findings; and a significant number of commendations. The Standards Board will revise the accredited rules and procedures as recommended and submit to ANSI for reaccreditation. Formally, the audit will be closed once the revised rules and procedures are submitted.

Report of Standards Sales

The bulk of revenue from standards sales continues to come from the Information Handling Services (IHS) for electronic subscriptions to the collection of our standards. Subscriptions are typically to large organizations, national laboratories, and government agencies with multiple users. Access and restrictions are controlled by IHS based on the subscription contract. Techstreet continues to host our partnered store and offers print on demand, electronic copies, and subscriptions. ANS continues to print large quantity orders directly and sells older historical standards that are no longer available in the store. The total calendar year 2019 sales were $270,045.08 which exceeded the budget of $260,000. So far, royalties for the first three quarters of 2020 (January – September) are $175,336.47. Royalties vary greatly from quarter to quarter with the first and fourth quarters typically being significantly higher than the second and third quarters. If the fourth quarter royalty for 2020 is equal to the royalty received for the fourth quarter of 2019, we should be within a couple hundred dollars of the 2020 budget for royalty.

No Delinquent Standards

The Standards Committee currently has no standards considered delinquent by ANSI, which defines a current American National Standard as one that has been approved or reaffirmed within the past 5 years. American National Standards that are over 5 years since approval are considered delinquent. Those that are not reaffirmed or revised within 10 years are administratively withdrawn by ANSI. All 83 current ANS standards have been either approved or reaffirmed in the last five years. This is a significant achievement which reflects due diligence on the part of ANS Standards Committee staff and volunteers.

2020 Standards Action Activities

The following standards projects were initiated in 2020:

- ANS-3.15-202x, Risk-Informing Critical Digital Assets (CDAs) for Nuclear Power Plant Systems (new standard)
- ANS-8.22-202x, Nuclear Criticality Safety Based on Limiting and Controlling Moderators (revision of ANSI/ANS-8.22-1997; R2016)
- ANS-18.1-202x, Radioactive Source Term for Normal Operation of Light Water Reactors (revision of ANSI/ANS-18.1-2016)
- ANS-19.3-202x, Steady-State Neutronics Methods for Power Reactor Analysis (revision of ANSI/ANS-19.3-2011; R2017)
- ANS-57.9-202x, Design Criteria for an Independent Spent Fuel Storage Installation (Dry Storage Type) (new standard, supersedes ANSI/ANS-57.9-1991; W2010)

The following standards and/or draft standards were issued for ballot and public review in 2020:

- ANS-2.2-2016 (R201x), Earthquake Instrumentation Criteria for Nuclear Power Plants (reaffirmation of ANSI/ANS-2.2-2016)
- ANS-2.23-2016 (R201x), Nuclear Power Plant Response to an Earthquake (reaffirmation of ANSI/ANS-2.23-2016)
- ANS-2.27-202x, Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments (revision of ANSI/ANS-2.27-2008; R2016)
- ANS-2.29-202x, “Probabilistic Seismic Hazard Analysis” (revision of ANSI/ANS-2.29-2008; R2016)
- ANS-2.30-2015 (R202x), Criteria for Assessing Tectonic Surface Fault Rupture and Deformation at Nuclear Facilities (reaffirmation of ANSI/ANS-2.30-2015)
- ANS-3.11-2015 (R202x), Determining Meteorological Information at Nuclear Facilities (reaffirmation of ANSI/ANS-3.11-2015)
- ANS-5.4-2011 (R202x), Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel (reaffirmation of ANSI/ANS-5.4-2011)
- ANS-6.1.1-202x, Neutron and Photon Fluence-to-Dose Conversion Coefficients (new standard, supersedes ANSI/ANS-6.1.1-1991; W2001)
- ANS-6.3.1-1987 (R202x), Program for Testing Radiation Shields in Light Water Reactors (LWR) (reaffirmation of ANSI/ANS-6.3.1-1987; R2015)
- ANS-6.6.1-2015 (R202x), Calculation and Measurement of Direct and Scattered Radiation from LWR Nuclear Power Plants (reaffirmation of ANSI/ANS-6.6.1-2015)

- ANS-8.20-1991 (R202x), Nuclear Criticality Safety Training [reaffirmation of ANSI/ANS-8.20-1991; R2015)
- ANS-8.27-2015 (R202x), Burnup Credit for LWR Fuel (reaffirmation of ANSI/ANS-8.27-2015)
- ANS-10.8-2015 (R202x), Non-Real-Time, High-Integrity Software for the Nuclear Industry--User Requirements (reaffirmation of ANSI/ANS-10.8-2015)
- ANS-18.1-202x, Radioactive Source Term for Normal Operation of Light Water Reactors (revision of ANSI/ANS-18.1-2016)
- ANS-51.10-202x, Auxiliary Feedwater System for Pressurized Water Reactors (revision of ANSI/ANS-51.10-1991; R2018)
- ANS-56.8-202x, Containment System Leakage Test Requirements (revision of ANSI/ANS 56.8-2002; R2016)
- ANS-57.8-202x, Fuel Assembly Identification (revision of ANSI/ANS-57.8-1995; R2017)
- ANS-58.9-2002 (R202x), Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems (reaffirmation of ANSI/ANS-58.9-2002; R2015)
- ANS-58.16-2014 (R202x), Safety Classification and Design Criteria for Nonreactor Nuclear Facilities (reaffirmation of ANSI/ANS-58.16-2014)
- ANS-59.51-1997 (R202x), Fuel Oil Systems for Safety-Related Emergency Diesel Generators (reaffirmation of ANSI/ANS-59.51-1997; R2015)
- ANS-59.52-1998 (R202x), Lubricating Oil Systems for Safety-Related Emergency Diesel Generators (reaffirmation of ANSI/ANS-59.52-1998; R2015)

<u>The following standards were approved in 2020</u>:

- ANSI/ANS-2.8-2019, Probabilistic Evaluation of External Flood Hazards for Nuclear Facilities (new standard, supersedes ANS-2.8-1992; W2002)
- ANSI/ANS-2.27-2020, Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments (revision of ANSI/ANS-2.27-2008; R2016)
- ANSI/ANS 2.29-2020, Probabilistic Seismic Hazard Analysis (revision of ANSI/ANS-2.29-2008; R2016)
- ANSI/ANS-2.30-2015 (R2020), “Criteria for Assessing Tectonic Surface Fault Rupture and Deformation at Nuclear Facilities” (reaffirmation of ANSI/ANS-2.30-2015)
- ANSI/ANS-3.1-2014 (R2020), Selection, Qualification, and Training of Personnel for Nuclear Power Plants (reaffirmation of ANSI/ANS-3.1-2014)
- ANSI/ANS-3.11-2015 (R2020), Determining Meteorological Information at Nuclear Facilities (reaffirmation of ANSI/ANS-3.11-2015)
- ANSI/ANS-5.4-2011 (R2020), Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel (reaffirmation of ANSI/ANS-5.4-2011)
- ANSI/ANS-6.1.1-2020, Neutron and Photon Fluence-to-Dose Conversion Coefficients (new standard)
- ANSI/ANS-6.3.1-1987 (R2020), Program for Testing Radiation Shields in Light Water Reactors (LWR) (reaffirmation of ANSI/ANS-6.3.1-1987; R2015)
- ANSI/ANS-6.6.1-2015 (R2020), Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants (reaffirmation of ANSI/ANS-6.6.1-2015)

- ANSI/ANS-8.10-2015 (R2020), Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement (reaffirmation of ANSI/ANS-8.10-2015)
- ANSI/ANS-8.20-1991 (R2020), Nuclear Criticality Safety Training (reaffirmation of ANSI/ANS-8.20-1991; R2015)
- ANSI/ANS-8.27-2015 (R2020), Burnup Credit for LWR Fuel (reaffirmation of ANSI/ANS-8.27-2015)
- ANSI/ANS-15.16-2015 (R2020), Emergency Planning for Research Reactors (reaffirmation of ANSI/ANS-15.16-2015)
- ANSI/ANS-18.1-2020, Radioactive Source Term for Normal Operation of Light Water Reactors (revision of ANSI/ANS-18.1-2016)
- ANSI/ANS-19.6.1-2019, Reload Startup Physics Tests for Pressurized Water Reactors (revision of ANSI/ANS-19.6.1-2011; R2017)
- ANSI/ANS-54.1-2020, Nuclear Safety Criteria and Design Process for Liquid-Metal-Cooled Nuclear Power Plants (new standard)
- ANSI/ANS-57.1-1992 (R2019), Design Requirements for Light Water Reactor Fuel Handling Systems (reaffirmation of ANSI/ANS-57.1-1992; R2015)
- ANSI/ANS-57.8-2020, Fuel Assembly Identification (revision of ANSI/ANS-57.8-1995; R2017)
- ANSI/ANS-58.9-2002 (R2020), Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems (reaffirmation of ANSI/ANS-58.9-2002; R2015)
- ANSI/ANS-58.16-2014 (R2020), Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities (reaffirmation of ANSI/ANS-58.16-2014)
- ANSI/ANS-59.51-1997 (R2020), Fuel Oil Systems for Safety-Related Emergency Diesel Generators (reaffirmation of ANSI/ANS-59.51-1997; R2015)
- ANSI/ANS-59.52-1998 (R2020), Lubricating Oil Systems for Safety-Related Emergency Diesel Generators (reaffirmation of ANSI/ANS-59.52-1998; R2015)

<u>The following standards were published in 2020</u>:

- ANSI/ANS-2.8-2019, Probabilistic Evaluation of External Flood Hazards for Nuclear Facilities (new standard)
- ANSI/ANS-2.27-2020, Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments (revision of ANSI/ANS-2.27-2008; R2016)
- ANSI/ANS-2.29-2020, Probabilistic Seismic Hazard Analysis (revision of ANSI/ANS-2.29-2008; R2016)
- ANSI/ANS-6.1.1-2020, Neutron and Photon Fluence-to-Dose Conversion Coefficients (new standard)
- ANSI/ANS-18.1-2020, Radioactive Source Term for Normal Operation of Light Water Reactors (revision of ANSI/ANS-18.1-2016)
- ANSI/ANS-19.6.1-2019, Reload Startup Physics Tests for Pressurized Water Reactors (revision of ANSI/ANS-19.6.1-2011; R2016)
- ANSI/ANS-54.1-2020, Nuclear Safety Criteria and Design Process for Sodium Fast Reactor Nuclear Power Plants (supersedes ANS-54.1-1989)
- ANSI/ANS-57.8-2020, Fuel Assembly Identification (revision of ANSI/ANS-57.8-1995; R2017)

ATTACHMENT 3

ANS Standards Board Meeting
November 17, 2020

Summary of Standards Discussion w/ANS President
Virtual Meeting

August 3, 2020
Participants: Mary Lou Dunzik-Gougar, Don Eggett, Carl Mazzola, Pat Schroeder
The following were captured from the meeting discussion.

1. Expanding solicitation of standards volunteers keeping in mind the following points

- Mary Lou is receptive to issuing a letter soliciting new volunteer members but would need a focused request for each project/standard in need.
- Prioritization: NEI 19-03 can be used to help determine advanced reactors priority standards. The NEI report is specific to advanced reactors.
- An alternate source/way to determine priority and listing of standards for current fleet would need to be determined, if needed.
- Importance of standards should be explained.
- Letters should mention a few standards that the companies are believed to be using and a couple of standards in development that need their support.
- Benefit of participation: to the individual that participates (networking, subject matter growth, etc.), to the individual's organization (cost savings, more experienced staff from knowledge share), to the industry
- Need: Why is the new or revised standard even needed?
- What is the commitment? Estimated time per month and length of project (might also mention no travel required)
- The following (examples) should be sought: PD, NPC, YMG within ANS; INPO; Labs; utilities; NRC

Mary Lou felt the need to draft two letters with this information—one for companies developing advanced reactors and one for companies maintaining the current fleet.

2. Development of a standards volunteer database

With ANS transitioning away from ANS Collaborate, one would have to wait to see what platform ANS moves to and then decide if this platform can be used as a volunteer database. A case study should be prepared to justify the need for the volunteer database and provide an estimate of staff resources needed to develop. Dollars will be needed to support the ANS IT department. Focus should be on young professional involvement.

Note: Pat Schroeder recently discussed with Dan Goldberg, the membership and marketing director, and staff liaison to ANS' Inclusion & Diversity Group and their incentive to create a database for speakers. The significance is that the SB needs to make sure we work with others to strengthen our request.

3. Additional Standards Board Members

- Expand at-large seats, thereby increasing total Board members.
- Mary Lou would support young professionals

ATTACHMENT 4

ANS Standards Board Meeting
November 17, 2020

Summary of Team Building Meetings with DOE/NRC/NEI/SDOs

DOE

August 11, 2020

Participants: DOE - Garrett Smith, Andrew Delapaz; ANS – Don Eggett, Carl Mazzola, Pat Schroeder

DOE's presentation material "Enhancing the Department of Energy Role in ANS Standards Activities (can be made available, if requested)

Per the meeting discussion, here are the follow-up items discussed / requested and provided to DOE:

1) Reaffirmation (re-approval without any changes) criteria in the Standards Committee Procedures Manual for Consensus Committees

- See Sec, 8, Initiating Maintenance Procedures, setting the timeframe of all standards to be maintained
- See Sec. 9, Implementation of Maintenance Procedures, for criteria on determining whether to revise, reaffirm, or withdraw a standard

2) NRC Management Directive 6.5 (expiration 10/28/21)

3) Unofficial report/actions from NEI/ANS advanced reactor standards workshop (This letter was provided by Eggett. Please note that this is the draft letter that will be issued to you when finalized.)

4) Roles and responsibilities of standards committee positions (ANS org chart was provided to DOE)

- Consensus committee, subcommittee, and working group roles and responsibilities can be found in the Standards Committee Procedures Manual for Consensus Committees
  - See Sec. 4.0 for consensus committee membership responsibilities and classifications
  - See Sec. 6.0 for subcommittee and working group chair responsibilities

  NOTE: Consensus committees are the formal balloting body of reaffirmations and draft standards. The consensus committee ballot is reported to ANSI when requesting their approval. Only the consensus committee level requires a balance of interest. Members from the same organization are required to share a vote unless a justification is provided and approved by the consensus committee and the Standards Board. Additionally, our policy on multiple representation restricts the number of representatives permitted on a consensus committee independent of voting privileges.

- Policy A1, Standards Committee Organization and Responsibility, can be found in the Policy Manual for the ANS Standards Committee.
  - See Sec. 4 for responsibilities of the Standards Board
  - The Standards Board's primary role is to provide policy and procedural direction for the

standards activities of the Society. An estimate of ballots per year is between 40 and 60. Best guess is that nearly 95% of these ballots require a review of a document between 3-8 pages. The Standards Board does not review and approve draft standards – just the ballot process. The Standards Board meets for a full day on Tuesday of every ANS annual and winter meetings. A remote option to participate is provided.

NOTE: The Standards Board has two membership categories –1) at-large members appointed by the ANS president and 2) ex officio members (i.e., the chairs of all consensus committees). Each of these two 2 categories is limited to 10 members. We are currently exploring a request to the ANS Bylaws & Rules Committee to increase at-large members. We presently have 10 at-large members. A few of their terms expire June 2021. The Standards Board is the only committee level that requires ANS membership.

5) A list of DOE and DOE contractor participants on consensus committees is provided as an attachment. The spreadsheet includes a worksheet for each consensus committee. Each worksheet includes the consensus committee's full roster; however, rows with members that are not DOE staff members or contractors are hidden.

6) Partial List of ANS Standards Supporting DOE

ANSI/ANS-2.2, Earthquake Instrumentation Criteria for Nuclear Power Plants

ANSI/ANS-2.3, Estimating Tornado, Hurricane, and Extreme Straight-Line Wind Characteristics at Nuclear Facility Sites

ANSI/ANS-2.8, Probabilistic Evaluation of External Flood Hazards for Nuclear Facilities

ANSI/ANS-2.10, Criteria for the Handling and Initial Evaluation of Records from Nuclear Power Plant Seismic Instrumentation

ANSI/ANS-2.15, Criteria for Modeling and Calculating Atmospheric Transport of Routine Releases from Nuclear Facilities

ANSI/ANS-2.23, Nuclear Power Plant Response to an Earthquake

ANSI/ANS-2.26, Categorization of Nuclear Facility Structures, Systems and Components for Seismic Design

ANSI/ANS-2.27, Criteria for Investigation of Nuclear Facility Sites for Seismic Hazard Assessment

ANSI/ANS-2.29, Probabilistic Seismic Hazard Analysis

ANSI/ANS-2.30, Criteria for Assessing Tectonic Surface Fault Rupture and Deformation at Nuclear Facilities

ANS-2.34 (in development), Probabilistic Volcanic Hazard Analysis

ANSI/ANS-3.2, Managerial, Administrative, and Quality Assurance Controls for the Operational Phase of Nuclear Power Plants

ANSI/ANS-3.11, Determining Meteorological Information for Nuclear Facilities

ANS-3.14 (in development), Aging Management

ANSI/ANS-5.10, Airborne Release Fractions at Non-Reactor Nuclear Facilities

ANSI/ANS-8.1, Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors

ANSI/ANS-8.3, Criticality Accident Alarm System

ANSI/ANS-8.10, Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement

ANSI/ANS-8.15, Nuclear Criticality Safety Control of Selected Actinide Nuclides

ANSI/ANS-8.23, Nuclear Criticality Accident Emergency Planning and Response

ANSI/ANS-10.4, Verification and Validation of Non-Safety Related Scientific and Engineering Computer Programs for the Nuclear Industry

ANSI/ANS-10.7, Non-Real Time, High Integrity Software for the Nuclear Industry – Developer Requirements

ANS Leadership Discussion with NRC Standards Executive and Staff

September 10, 2020

Participants: NRC - Louise Lund, John Nakoski, Meraj (Raj) Rahimi, Jeremy Bowen, Robert Roche-Rivera, ANS - Don Eggett, Carl Mazzola, Pat Schroeder

1) **Introduction**

2) **Collaborative working relationship between NRC and ANS**
   Eggett initiated this meeting and discussion to improve the working relationship between NRC and ANS.

3) **NRC Oct Standards Forum and support from ANS Including Speaking**
   Eggett confirmed that the Standards Board is working on the ANS presentations for the Forum to include the two requested topics—follow up from the ANS/NEI Advanced Reactor Standards & Codes Workshop held on June 23, 2020, and a status update on the ANS-20.2 standard.

   NRC sentiments were that past workshops did not have much follow through of actions. The recent workshop was well attended by industry, and it is important to capitalize on this momentum. Eggett agreed and has already reached out to NEI to discuss the next action(s)**. Priority standards need to be identified and moved forward. Nakoski suggested that a proposal should be developed for the creation of a "Project Management (PM) Team" of technical experts to determine the appropriate next action and to direct the work. The proposal should be sent to DOE to fund the PM Team's efforts. Proposals should be submitted to Dirk Cairns-Gallimore with DOE - NE.**

4) **NRC engagement in current industry issues, e.g. Adv Reactors, Risk-Informed Performance Based (RIPB) Industry Focus**
   The importance of these efforts was recognized. As an example, Lund informed us of a working group that NRC formed to address the ASME RIM (Reliability Integrity Management) project. Also, **NRC staff participates in ANS's RP3C and its CoP.**

5) **NRC representation on ANS consensus committees—formal balloting body**
   Lund confirmed that representatives have been selected to fill openings on ANS consensus committees. Roche-Rivera will send the names of these individuals to Schroeder. It was agreed that **the discussion was productive and future meetings should be scheduled quarterly.**

ASME

September 17, 2020

Participants: ASME - Tom Vogan; ANS – Don Eggett, Carl Mazzola, Pat Schroeder

The meeting discussion centered around the need for SDOs to improve the working relationship among themselves to support the industry on codes and standards.

As discussed, NEI 19-03, "Advanced Reactors Codes and Standards Needs Assessment" can be found at https://www.nei.org/resources/reports-briefs/nei-19-03,-advanced-reactors-codes-and-standards.

Previous to the NEI report, ANS issued a special report "Setting the Right Bar: How Consensus Standards Help Advanced Reactor Development." The ANS report is available at https://ssl.ans.org/cms/media/?m=1190&n=SCARP.pdf.

I also want to provide you the link to our annual activity report. This report includes all of our standards and projects by consensus committee (you call standards committee). The report is accessible at https://www.ans.org/file/1421/2/2019+Annual+Activity+Report+-final_5-6-20.pdf.

ANS/NEI Discussion

October 2, 2020

Participants: NEI - Marc Nichol, Frankie Pimentel, Mark Richter; ANS - Don Eggett, Carl Mazzola, Steve Stamm, Pat Schroeder

1) Introduction

Introductions were made. Eggett explained that he is trying to have ANS be more proactive in communicating with industry and engaging the right parties with respect to standards development for advanced reactors.

2) Advanced Reactor Status/Current and Future Needs for Success

Eggett stated that he has prepared a presentation for the upcoming NRC Standards Forum with an overview of the June 23, 2020, ANS-NEI Advanced Reactor Standards & Codes (C&S) Workshop. Excellent feedback came from the workshop, and ANS is interested in moving forward and defining the next steps.

Marc Nichol provided a summary of progress on advanced reactors and LWR SMRs from NEI's perspective. **NEI is transitioning to support their efforts from a development and design phase to a licensing and construction phase. These efforts are receiving strong support from the advanced reactor initiatives in both DOE and NRC.**

3) Next Steps to Support Advanced Reactors, NEI 19-03

Nichol explained that in the 2013-time frame, NEI attempted to push the industry to identify the needed C&S for advanced reactors but did not receive a lot of support from industry, likely because the designs were in the very early preliminary design stages. Then in 2018, NEI initiated work on NEI 19-03 and found it to be a challenge in getting feedback from their

industry members to support preparation and review of the draft report. A contractor was retained to facilitate the effort where initially 180 standards were identified as C&S requiring further assessment, and a survey was issued to their members. The higher priority standards were pared down to 20. Nichol emphasized that the report was only a snapshot in time stating that the priorities have changed since its completion as the C&S picture continues to evolve. Accordingly, NEI is not fixed on the conclusions from the report and are looking for support to develop a long-term action plan.

Nichol also stated that advanced reactor developers, inclusive of microreactors and the DoD mobile nuclear reactor, want to set the priorities but the industry as a whole needs to understand that a collective conversation is necessary when it comes to identifying specific standard's needs. NEI is very interested in playing the part of matchmaker between advanced reactor developers and SDOs.

Richter has started to engage advanced reactor developers and has learned that there is no one-size-fits-all type of needs due to the wide range of advanced reactor designs and types 2 of reactors. **He reiterated that the advanced reactor community needs to collectively work with the SDOs to assist in identifying which standards should be pursued**. Richter will be working initially to convene small working group meetings between the reactor designers and specific SDOs to begin that process. He emphasized this should be done separately with each major SDO, as NEI does not want to recreate a workshop environment recently encountered. Nichol believes that following this approach will provide a more efficient means that is needed.

Furthermore, when the question was posed by Eggett on performing an independent assessment of NEI 19-03, **Nichol agreed that such an assessment may be beneficial to have input from ANS, and possibly ASME, on re-evaluating NEI 19-03 and defining the industry priorities.**

ACTION: Richter to work with Eggett and George Flanagan (chair of advanced reactors consensus committee) to facilitate an initial advanced reactor developer meeting with ANS. Mazzola and Schroeder to be included in e-mails.

ACTION: Eggett to facilitate ANS comments/feedback on NEI 19-03.

ACTION: Eggett to discuss with ASME BNCS Chair Tom Vogan on ASME performing a similar independent assessment and providing their feedback on priorities that may be different as currently laid out in NEI 19-03.

4) NRC/ANS Recent Meeting and a Suggested Project Management Industry Group

Eggett stated that he recently held a meeting with the NRC, and one outcome from the meeting was a recommendation from John Nakoski, NRC, for ANS to form a Project Management Team (PMT) or industry advanced reactor steering committee" to help set priorities for the advanced reactor industry. Wide industry representation would be sought to fill the membership of the PMT to accomplish its objectives. It was recommended by Eggett that DOE and NEI be a participant on this industry team. Once the PMT membership was determined and filled, efforts would be made to define specific industry advanced reactor needs and to submit proposals to DOE requesting their assistance in evaluating and approving funding for the highest identified advanced reactor priority projects including standards that required immediate development. Nichol, Richter, and Pimentel were all in

favor of this type of approach to better set the priorities for needed C&S.

ACTION: Eggett to initiate the necessary actions plans in forming an advanced reactor industry PMT.

5) Improvements in SDO Working Relationships and with NEI, DOE, others

The above discussions adequately covered this subject matter. In addition, Nichol added that NEI has resources for other areas besides C&S which should be explored.

In closing, Schroeder was asked to provide Richter the information for the upcoming Standards Board meeting next month.

ACTION: Schroeder to send Richter meeting details for the next Standards Board meeting.

Don Eggett
Chair, ANS Standards Board

Secretary/Staff Report

Attachment 5A

2020 ANS Annual Meeting

Staff Research on Adopting ISO Standards

Action Item 6/2020-17 was assigned for staff to explore ANS adopting ISO standards. In response, ANSI's Leanne Lowry, ANSI's Director of Licensing & Business Development, was contacted as well as Steve Mawn and Mike Brisson, NTAG Secretary/ASTM and NTAG Chair respectively. The following would be required:

- Contractual agreement with ANSI required.
  - ANSI requires 50% of gross sales.
  - Upfront attorney fee to review agreement estimated at $1000.
- Approval from the NTAG and ASTM required.
- Contractual Agreement signed with ASTM.
  - No fee required from NTAG or ASTM.
  - ISO/ASTM standards would be excluded from agreement.
  - Upfront attorney fee to review agreement estimated at $1000.
  - ASTM experience found adoption of ISO standards was not financially sustainable.
- Rules and procedures must be revised to incorporate adoption of ISO standards.
- Relevant consensus body must review and approve adoption of ISO standard(s) with no changes.
- ANS would receive 10% sales royalty (gross sales minus 50% to ANSI and 40% to reseller) for the bulk of sales (87%).
- ANS would receive 15-25% sales royalty (gross sales minus 50% to ANSI and 15/25% to resellers) for 13% of sales.
- Resellers would be required to provide separate reports for ISO/ANS standards.
- ANS accounting department would need to generate a quarterly royalty report to ANSI with sales information from all resellers and issue wire transfers.

Staff recognizes that there may be some benefit to industry if ANS adopted ISO standards but does not see this effort as financially feasible for ANS at this time.

Standards Volunteer Database Update

An initial request was made in 2004 for the ANS Information Technology (IT) Department to create an online volunteer database that Standards Committee chairs could use to search for potential candidates to fill committee staffing needs. Many challenges have prevented its completion. It is believed that the merger of the ANS Standards Workspace into ANS Collaborate could afford a number of opportunities to use ANS Collaborate to search for candidates to fill committee staffing needs, but customization from ANS IT and support of members to complete their profiles would be needed.

Two new roadblocks have recently emerged in that 1) ANS may be moving away from ANS Collaborate and 2) the IT Department staff was reduced. Johnny Cison remains on staff as the ANS Director of Digital Technology with a heavy workload. Cison takes direction from the ANS Board of Directors (BOD) and ANS's CEO and Executive Director. Standards Board Chair Don Eggett and Standard Board Vice Chair Carl Mazzola discussed the need for a volunteer database with ANS President Mary Lou Dunzik-Gougar in August. Dunzik-Gougar suggested that a business case be prepared for the volunteer database once it is known if ANS will continue to use Collaborate or move to an alternate platform. The business case will need to justify the need and provide an estimate of staff resources needed to develop.

Changes to Standards Staffing, Reporting Structure, and Remote Work

As reported at the annual meeting, the standards program was moved from the Publications Department to the Meetings and Programs Department headed by Paula Cappelletti. The move was part of an

internal restructuring. John Fabian, who had supported the JCNRM and managed the PRA standards grant, was promoted to Publications Director. With the change, support of the JCNRM and grant was reassigned to Pat Schroeder. Kathy Murdoch was moved from part time (30 hours) to full time. Murdoch has taken over all responsibilities regarding facilitating volunteer placement, tracking associate members, and full responsibility for managing volunteer records in Collaborate and in our internal volunteer database (Filemaker) while maintaining all previous responsibilities. Staff physically moved offices to re-align with the new organizational structure in the middle of March. No sooner had the move been completed when the office was closed due to the pandemic. As of March 17, 2020, staff moved to a remote work environment. A limited number of staff is permitted back in the office at any one time. No decision has been made on returning to the office.

Over the last 15 years many initiatives and programs have been implemented, and a reorganization of the Standards Committee in 2013 more than doubled the number of committees receiving full staff support. Additionally, over the years, ANS has eliminated staff positions and changed operations. These programs and changes have had a considerable impact on staff resources. A list of committees, programs, and responsibilities added since 2004 is provided below:

<u>New programs and initiatives</u>

- solicit reports and prepare annual activity report (no report 1992-2003)
- prepare annual consensus committee evaluation reports (per SMART Matrix)
- prepare quarterly maintenance reports
- prepare consensus committee chair reports for annual and winter meetings
- prepare consensus committee project status reports for meetings
- track volunteer staffing needs for chair reports
- track feedback/progress on RP3C's evaluation
- maintain schedule of RIPB standards in development
- facilitate Associate Member Program and prepare reports for annual and winter meetings
- support the Professional Division/Standards Committee Liaison Program
- support Standards Board task groups as needed
- manage 150+ standards committee rosters on ANS Collaborate
- provide members assistance in the use of ANS Collaborate
- issue ballots for subcommittees

<u>Committee support additions</u>

The following committees received staff support in 2004:

- Standards Board met 2 times a year.
- N16 Consensus Committee met 1 time a year without staff support.
- N17 Consensus Committee met every 2 or 3 years; chair handled balloting by mail.
- Nuclear Facilities Standards Committee met 2 times a year.
- RISC met 2 times a year.

The following committees receive full staff support in 2020:

- Standards Board meets 2 times a year; occasionally a 3rd web or teleconference is held.
- Risk-informed, Performance-based Principles and Policy Committee (RP3C) meets 2 times a year.
- RP3C's Community of Practice holds monthly webinars.
- Environmental and Siting Consensus Committee holds meetings 3 times a year.
- Fuel, Waste, and Decommissioning Consensus Committee holds meetings 3 times a year.
- ANS/ASME Joint Committee on Nuclear Risk Management (JCNRM) holds a 4-day meeting 2 times a year.

- JCNRM Executive Committee holds a meeting every other week.
- Large Light Water Reactor Consensus Committee holds a meeting 3 times a year.
- Nuclear Criticality Safety Consensus Committee holds a meeting 1-2 times a year.
- Nonreactor Nuclear Facilities Consensus Committee holds a meeting 2-3 times a year.
- Research and Advanced Reactors Consensus Committee holds a meeting 1 time a year.
- Safety and Radiological Analyses Consensus Committee holds a meeting 1 time a year.

Additional responsibilities for standards staff due to internal and other changes

- maintain standards webpages (previously responsibility of webmaster)
- format ANS standards and facilitate publication (previously responsibility of ANS editors & typesetters)
- facilitate publication of ANS/ASME joint standards
- format *Nuclear Standards News* for publication (previously sent to outside typesetter)
- prepare standards budget (previously director responsibility)
- add new standards to inventory system (previously building services director responsibility)
- create standards ads (previously sent to outside graphic designer)
- prepare standards articles/copy for ANS social media and ANS e-publications (previously NA)
- manage NRC grant for PRA standard; submit financial and technical reports bi-annually (previously director responsibility)
- secure copyright permission for 3rd party material in ANS standards (previously NA)

ANS Collaborate Usage Stats for the Standards Board and Consensus Committees

The Standards Committee Members site now recognizes 782 Standards Committee members. The number represents an increase of 8 members from the June 2020 report. Consensus committee ballot usage for the Standards Board and consensus committees follows:

Committee	**2015 Ballots Issued**	**2016 Ballots Issued**	**2017 Ballots Issued**	**2018 Ballots Issued**	**2019 Ballots Issued**	**2020 Ballots Issued** (through 10/29/20)
Standards Board	25	64	53	31	37	50
ESCC	11	25	25	12	16	19
FWDCC	3	17	15	2	4	6
LLWRCC	13	17	17	19	13	22
NCSCC	6	10	17	7	13	10
NRNFCC	5	4	2	4	10	8
RARCC	6	14	5	5	6	8
SRACC	5	14	10	7	5	9

Report of Standards Sales

The bulk of revenue from standards sales continues to come from the Information Handling Services (IHS) for electronic subscriptions to the collection of our standards. Subscriptions are typically to large organizations, national laboratories, and government agencies with multiple users. Access and restrictions are controlled by IHS based on the subscription contract. Techstreet continues to host our partnered store and offers print on demand, electronic copies, and subscriptions. ANS continues to print large quantity orders directly and sells older historical standards that are no longer available in the store.

Total standards royalty/revenue for 2019 and 2020 through 9/30/20 follows:

Royalties 2019					
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	YTD
	Actual	Actual	Actual	Actual	
I.H.S.	$ 71,139.65	$ 56,871.73	$ 31,622.61	$ 73,446.03	$ 233,080.02
Tech St.	$ 5,282.47	$ 4,452.28	$ 8,281.86	$ 7,951.85	$ 25,968.46
ANSI	$ 1,194.70	$ 2,255.50	$ 2,231.45	$ 2,897.70	$ 8,579.35
ANS Direct	$ -	$ 2,417.25	$ 4,956.00	$ -	$ 7,373.25
Total	$ 77,616.82	$ 65,996.76	$ 42,135.92	$ 84,295.58	$ 270,045.08
Budget	$ 85,000.00	$ 65,000.00	$ 35,000.00	$ 75,000.00	$ 260,000.00
Difference	$ (7,383.18)	$ 996.76	$ 7,135.92	$ 9,295.58	$ 10,045.08

Royalties 2020					
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	YTD
	Actual	Actual	Actual	Actual	
I.H.S.	$ 73,865.53	$ 31,348.12	$ 34,817.97		$ 140,031.62
Tech St.	$ 6,700.12	$ 8,399.64	$ 6,206.64		$ 21,306.40
ANSI	$ 6,114.55	$ 4,174.95	$ 3,401.45		$ 13,690.95
ANS Direct	$ 2,110.10	$ 607.50	$ 0		$ 2,717.60
Total	$ 86,680.20	$ 44,530.21	$ 44,426.06	$ -	$ 175,636.47
Budget	$ 85,000.00	$ 65,000.00	$ 35,000.00	$ 75,000.00	$ 260,000.00
Difference	$ 1,680.20	$ (20,469.79)	$ 9,426.06	$ (75,000.00)	$ (84,363.53)

A more detailed report of sales through our partnered store and direct ANS sales is provided following this report. See Attachment 4B.

Standards Committee Engagement of Young Professionals

In March 2020, the new webpage, Young Professionals in Standards, was launched. The site includes a photo of 8 young professionals along with a brief statement explaining how they became involved in our program and a little of their background. These individuals joined a standards working group as a nonvoting associate member. Several of the individuals on the webpage are now full members. We will continue to add young professionals interested in being recognized.

The Associate Member Program continues to grow. Working group chairs have placed 82 young professionals of which 14 are now full members. An additional 7 associate members are members of multiple working groups and have been upgraded on one of more groups. Currently, the Standards Committee has 49 associate members with 19 associate members having resigned or were dropped for lack of response. Working group chairs were contacted earlier in the year for a progress update on associate member participation. A follow up is currently in works with a request for working group chairs to consider moving active associate members to full membership. This will not be possible for some associate members as they have yet had a chance to contribute because their assigned group have not been active. Of the 49 current associate members, 22 (45%) are assigned under the NCSCC. Typically, no more than 2 associate members are placed on the same working group. Several NCSCC working groups have 2 or more associate members and may be unable to accept more. Placements outside of NCSCC are challenging to find an active group with available associate member slots. Staff would like to hold off on additional broadcasts of the Associate Member Program to allow a number of current associate members to be upgraded and open up additional spots for placement. A detailed report of associate members is provided as Attachment 4C.

ANSI Audit Report

The American National Standards Institute (ANSI) preformed an audit of our standards program in August/September of this year. The following standards were audited in detail:

- ANSI/ANS-5.4-2011 (R2020), “Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel” (reaffirmation)
- ANSI/ANS-58.8-2019, “Time Response Criteria for Manual Actions at Nuclear Power Plants” (revision)
- ANSI/ANS-2.10-2017, “Criteria for Retrieval, Processing, Handling, and Storage of Records from Nuclear Facility Seismic Instrumentation” (revision)
- ANSI/ANS-54.1-2020, “Nuclear Safety Criteria and Design Process for Sodium Fast Reactor Nuclear Power Plants” (new standard)
- ANSI/ANS-57.3-2018, “Design Requirements for New Fuel Storage Facilities at Light Water Reactor Plants” (new standard)

As part of the audit, ANSI also reviewed our accredited and supplemental procedures. Each audit, ANSI digs a little deeper. This time it appears to be into rules, procedures, and policies. The audit report includes a recommendation to make changes to our rules, policies, and procedures; a few administrative findings (nonsignificant); and includes many commendations. The big takeaway from this audit is that we cannot acknowledge withdrawn standards on ANSI documents. For instance, ANSI/ANS-54.1-2020 is considered a new standard by ANSI. We recognized the historical version of ANS-54.1 on the PINS and BSR-8. While this information is of interest to our members, it cannot be recognized on ANSI forms. We may include this information as part of the ballot language or on the ancillary information provided with a PINS form.

Jay Moskowitz, ANSI’s audit manager, stressed that the audit report reflects a well-run program. He said that it is very rare for an organization to receive so many commendations. In particular, he said that ANSI rarely gives out the commendation that the developer “is competent and knowledgeable concerning its standards development process and ANSI requirements” stated as #28. Moskowitz also said that it is extremely rare that an organization has no findings at all. He estimated that out of 1000 audits only 2% have no findings, and many of the organizations have significant findings.

ANSI asks that revised procedures be submitted to them within 6 months to address their change recommendations. Formally, the audit remains open until our revised procedures are approved. A list of their recommendations, findings, and commendations follows.

ANS 2020 AUDIT RESULTS

Requested Text Changes for Rules, Procedures, Policies:

#	§	Requested Text Changes
1		The auditor suggests that ANS consider revising its procedures as follows:
1a	7B	Revise Section 5.3 to shorten the ballot period from “60 days, but may be shortened at the discretion of the Consensus Committee Chair if the committee has recently reviewed an earlier draft or if there is substantial demand for the standard by the user community” to 30 days. A shorter ballot period could shorten the time necessary to finalize a standard.
1b	7B	Add a requirement to Section 5.3 to send follow-up e-mails requesting immediate return of the ballot to all members whose votes have not been received ten calendar days before the ballot closes.
1c	7B	Add a section to the procedures containing the consensus body voting options.
1d		Revise Section 5.12 to add “or if a BSR-8 form was submitted for a reaffirmation of a standard.”
2	7D	The auditor suggests that ANS consider whether it wants to allow technical appeals. The *ANSI Essential Requirements* require only that standards developers allow procedural appeals, and it is within the developer’s prerogative whether to allow technical appeals.
3	7D	The auditor suggests that ANS revise its appeals policy in Section 6.2 to have the chair of another consensus committee participate, as the chair of consensus body who developed the standard should not participate in hearing the appeal of the standard. An additional suggestion offered by the auditor would be to have the Standards Board hear procedural appeals.
4	7D	The auditor suggests that ANS revise its appeals policy in Section 6.2 to state that the appellant shall receive a written copy of the decision.

5		The auditor suggests that ANS consider revising the ANS *Policy Manual for the ANS Standards Committee* as follows:
5a		Correct the typographical error in Section A2 where Section 2.2.1 should be Section 3.2.1. Additionally, the reference to Article 2.2.2 in this section should be to 3.2.2.
6	7C	The auditor suggests that ANS examine the membership requirements contained its *Policy Manual for the ANS Standards Committee* and *ANS Standards Committee Procedures Manual for Consensus Committees* to see if any of those requirements should be added to its accredited procedures.
7		The auditor suggests that ANS request a 45-day public review period and provide ANSI with the source, URL or e-mail address from which the document can be obtained in those instances when the draft standard is available in an electronic format, deliverable within one day of a request.
8		The auditor suggests that ANS regularly review the list of open ANS projects by visiting the following ANSI website – www.ansi.org/asd. This website includes an excel spreadsheet listing all proposed American National Standards projects currently under development as of the date of the spreadsheet. These projects have been published in ANSI Standards Action as indicated by the PINS date and/or Public Review Start date. By regularly reviewing the list of ANS projects maintained by ANSI, ANS staff will be able to determine if PINS or BSR-8 forms have been submitted for ANS's current standards projects. This will also allow ANS to request discontinuance of any open projects that are no longer active.

Current Audit Findings:

The auditor found areas of non-compliance and procedural concern. The following recommendations are made to address these non-compliances and procedural concerns:

i) The auditor recommends that that ANS revise the ANS Procedures and provide a copy to ANSI to initiate the reaccreditation process, as the auditor found that substantive changes are required to bring those procedures into agreement with the currently applicable *ANSI Essential Requirements.* The specific recommended revisions are:

a. Revise Section 5.3 to remove the words "through the Board of Standards Review of the American National Standards Institute (ANSI)," as the BSR is not involved in ANSI public review. ANSI receives the BSR-8 form and arranges for the announcement to be made in *Standards Action*;

b. Revise Section 5.4 to reconcile with Section 5.3 whether public review and consensus body ballot shall be held concurrently;

c. Revise Section 5.4 to add the requirement that public review commenters must use the comment form to submit comments and address if there are any consequences for not fully completing the form;

d. Add to Section 5.9 the requirement that, in order to have an interpretation inquiry addressed, a requestor must complete the required form;

e. Revise the Appeals Policy in Section 6 to allow for membership appeals;

f. Revise the Appeals Policy in Section 6 to include a filing deadline, e.g., 30 days from an action, and to state that appeals of inactions can be filed at any time;

g. Revise the Appeals Policy in Section 6.2 to add detail regarding the steps of hearing the appeal as well as who hears the appeal, and to include language regarding the panel being unbiased and not directly and materially affected by the standard;

h. Revise the Appeals Policy in Section 6.3 to remove the responsible Consensus Committee chair, as the chair of the consensus committee should not serve on an appeals panel and add language to this section to state that the group that hears the appeal shall be unbiased and not directly and materially affected by the standard;

i. Revise the Appeals Policy in Section 6.4 to add deadlines with regard to completion of the appeals process;

j. Add to the accredited procedures the requirements from Section 3.2 of the *ANS Standards Committee Procedures Manual for Consensus Committees* with regard to multiple representatives from a single organization on consensus committee.

ii) The auditor recommends that the non-compliances listed in this audit report be reviewed at the next scheduled audit to verify that corrective action was taken.

B. The auditor found areas of administrative error. The following recommendations are made to address these administrative errors:

i) The auditor recommends that, in accordance with clause 2.5 of the *ANSI Essential Requirements*, ANS complete PINS forms correctly, including all required information (i.e., designation, title, scope, etc.). The auditor finds the following errors on the PINS forms:

a. Incorrectly included a withdrawn American National Standard in the "Supersedes or Affects" section

i. ANSI/ANS-54.1-2020;
ii. ANSI/ANS-2.10-2017; and
iii. ANSI/ANS-57.3-2018.

ii) The auditor recommends that, in accordance with clause 2.5 of the *ANSI Essential Requirements*, ANS complete BSR-8 forms correctly, including all required information (i.e., designation, title, scope, etc.). The auditor finds the following errors on the BSR-8 forms:

a. Incorrectly included a withdrawn American National Standard in the "Supersedes or Affects" section

i. ANSI/ANS-54.1-2020 (both forms);
ii. ANSI/ANS-2.10-2017; and
iii. ANSI/ANS-57.3-2018 (both forms).

b. Incorrectly answered the "Units of Measure" section

i. ANSI/ANS-57.3-2018 – stated "N/A" but should have answered "US & Metric."

iii) The auditor recommends that, in accordance with clause 4.2 of the *ANSI Essential Requirements*, ANS complete BSR-9 forms correctly, including all required information. The auditor finds the following errors on the BSR-9 forms:

a. Incorrectly answered Question #9 with regard to dates of recirculation

i. ANSI/ANS 57.3-2018 – answered "Not applicable," but should have answered June 29, 2017 and October 19, 2017.

iv) The auditor recommends that the administrative errors listed in this audit report be reviewed at the next scheduled audit to verify that corrective action was taken.

Auditor's Notes and Commendations:

No.	Notes/Commendations
1	ANS has an oversight body charged with providing a procedural review of proposed standards.
2	ANS announces standards development activities on its website and in trade publications.
3	ANS effectively uses its website to provide information about its standards and standards development process.
4	ANS submits PSA forms electronically.
5	ANS conducts consensus ballots and public review concurrently, shortening the time required to approve a standard.
6	ANS submits PINS or BSR-8 form prior to the fifth anniversary of the approval of the underlying ANS.

7	ANS has no ANSs beyond the tenth anniversary of their approval as ANSs.
8	ANS does not have a fee for participation on the consensus body.
9	ANS does not restrict consensus body membership on the basis of technical qualifications or membership in any organization.
10	ANS monitors participation, contacts non-participating members, and suspends non-participating members according to its procedures.
11	ANS has discrete interest category definitions contained in its procedures.
12	ANS makes its consensus body list available as required by its procedures.
13	ANS has formal liaison relationships established with other SDOs, such as ASME.
14	ANS participates in related international standards development activities.
15	ANS staff has participated in ANSI training webinars since ANS's last audit.
16	ANS provides training for staff and consensus body members.
17	ANS has a well-developed system for tracking and managing the standards development process.
18	ANS makes its standards available for purchase through its website
19	ANS participates on ANSI boards and councils, such as the OMF and the NPAG.
20	ANS has a policy prohibiting commercial terms and conditions.
21	ANS has a policy pertaining to patents that complies with the ANSI Patent Policy.
22	ANS has an antitrust policy.
23	ANS has a standards interpretation policy.
24	ANS has a metric policy.
25	ANS has a satisfactory records retention policy.
26	ANS's audit documentation was in good order and easy to follow.
27	ANS has supplemental procedures to aid the internal administration of the standards development process.
28	ANS is competent and knowledgeable concerning its standards development process and ANSI requirements.
29	ANS provided very clear and complete answers to the questionnaire, ANNEX B-ANSI Reporting Format.

ANS Direct & ANS Techstreet Store Sales Report (April 1 -- September 30, 2020)

Doc No	Title	Qty	Vendor Price	Gross Revenue	Total Discount %	Disc Amount	Gross Revenue After Discount	Source	Format	% Due	Royalty Amount	Fullfillment Method	MultiUser
15.16-2015 (R2020)	Emergency Planning for Research Reactors	1	$78.00	$78.00	0.00%	$0.00	$78.00	Web	PDF	80.00%	$62.40	PODL	Single
15.16-2015 (R2020)	Emergency Planning for Research Reactors	1	$78.00	$78.00	0.00%	$0.00	$78.00	Web	PDF	80.00%	$62.40	PODL	Single
15.21-2012 (R2018)	Format and Content for Safety Analysis Reports for Research Reactors	3	$176.80	$176.80	0.00%	$0.00	$176.80	Web	PDF	80.00%	$141.44	PODL	MultiUser
15.7-1977 (R1986)	Research Reactor Site Evaluation	1	$92.11	$92.11	0.00%	$0.00	$92.11	TS Web	PDF	80.00%	$50.66	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
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
15.8-1995 (R2018)	Quality Assurance Program Requirements for Research Reactors	3	$91.00	$91.00	0.00%	$0.00	$91.00	Web	PDF	80.00%	$72.80	PODL	MultiUser
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
18.1-2020	Radioactive Source Term for Normal Operation of Light Water Reactors	1	$112.00	$112.00	0.00%	$0.00	$112.00	Web	PDF	80.00%	$89.60	PODL	Single
19.3-2011 (R2017)	Steady-state Neutronics Methods for Power Reactor Analysis	1	$141.00	$141.00	0.00%	$0.00	$141.00	Phone	Printed Edition	75.00%	$105.75	PDLC	Single
2.26-2004 (R2017)	Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design	1	$131.00	$131.00	0.00%	$0.00	$131.00	Web	PDF	80.00%	$104.80	PODL	Single
2.8-2019	Probabilistic Evaluation of External Flood Hazards for Nuclear Facilities	1	$208.00	$208.00	0.00%	$0.00	$208.00	Phone	Printed Edition	75.00%	$156.00	PDLC	Single
3.1-2014 (R2020)	Selection, Qualification and Training of Personnel for Nuclear Power Plants	1	$141.00	$141.00	0.00%	$0.00	$141.00	Web	PDF	80.00%	$112.80	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$137.00	$137.00	0.00%	$0.00	$137.00	Web	PDF	80.00%	$109.60	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$137.00	$137.00	0.00%	$0.00	$137.00	Web	PDF	80.00%	$109.60	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	3	$178.10	$178.10	0.00%	$0.00	$178.10	Web	Redline and Base	80.00%	$142.48	PDLC	MultiUser
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$137.00	$137.00	0.00%	$0.00	$137.00	Web	PDF	80.00%	$109.60	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$123.30	$123.30	0.00%	$0.00	$123.30	Web	PDF	80.00%	$98.64	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$137.00	$137.00	0.00%	$0.00	$137.00	Web	PDF	80.00%	$109.60	PODL	Single
3.5-2018	Nuclear Power Plant Simulators for Use in Operator Training and Examination	1	$137.00	$137.00	0.00%	$0.00	$137.00	Phone	Printed Edition	75.00%	$102.75	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
5.1-2014 (R2019)	Decay Heat Power in Light Water Reactors	3	$239.20	$239.20	0.00%	$0.00	$239.20	Web	PDF	80.00%	$191.36	PODL	MultiUser
5.4-2011 (R2020)	Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel	1	$77.40	$77.40	0.00%	$0.00	$77.40	Web	PDF	80.00%	$61.92	PODL	Single
55.6-1993 (R2007)(W	Liquid Radioactive Waste Processing System for Light Water Reactor Plants	1	$130.50	$130.50	0.00%	$0.00	$130.50	Web	PDF	80.00%	$104.40	PODL	Single
57.2-1983	Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants	1	$138.00	$138.00	0.00%	$0.00	$138.00	Phone	Printed Edition	75.00%	$103.50	PDLC	Single
57.2-1983	Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants	1	$138.00	$138.00	0.00%	$0.00	$138.00	Web	PDF	80.00%	$110.40	PODL	Single
57.3-2018	Design Requirements for New Fuel Storage Facilities at Light Water Reactor Plants	1	$86.00	$86.00	0.00%	$0.00	$86.00	Web	PDF	80.00%	$68.80	PODL	Single
58.2-1988	Design Basis for Protection of Light Water Nuclear Power Plants Against the Effects of Postulated Pipe Rupture	1	$210.00	$210.00	0.00%	$0.00	$210.00	Phone	Printed Edition	75.00%	$157.50	PDLC	Single
58.22-2014	Requirements for Low Power and Shutdown Probabilistic Risk Assessment - ANS/ASME-58.22-2014 (Trial Use Standard)	1	$440.00	$440.00	0.00%	$0.00	$440.00	Web	PDF	80.00%	$352.00	PODL	Single
59.51-1997 (R2015)	Fuel-Oil Systems for Emergency Diesel Generators	1	$86.00	$86.00	0.00%	$0.00	$86.00	Web	PDF	80.00%	$68.80	PODL	Single
6.1.1-1991	Neutron and Gamma-Ray Fluence-to-Dose Factors	1	$112.00	$112.00	0.00%	$0.00	$112.00	Web	Printed Edition	75.00%	$84.00	PDLC	Single
6.1.1-1991	Neutron and Gamma-Ray Fluence-to-Dose Factors	1	$112.00	$112.00	0.00%	$0.00	$112.00	Web	Printed Edition	75.00%	$84.00	PDLC	Single
6.4.2-2006 (R2016)	Specification for Radiation Shielding Materials	1	$86.00	$86.00	0.00%	$0.00	$86.00	Web	PDF	80.00%	$68.80	PODL	Single
6.4.3-1991	Gamma-Ray Attenuation Coefficients and Buildup Factors for Engineering Materials	1	$230.40	$230.40	0.00%	$0.00	$230.40	Web	PDF	80.00%	$184.32	PODL	Single
6.4-2006 (R2016)	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	1	$229.00	$229.00	0.00%	$0.00	$229.00	Web	PDF	80.00%	$183.20	PODL	Single
6.4-2006 (R2016)	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	3	$297.70	$297.70	0.00%	$0.00	$297.70	Web	PDF	80.00%	$238.16	PODL	MultiUser
6.4-2006 (R2016)	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	1	$229.00	$229.00	0.00%	$0.00	$229.00	Web	PDF	80.00%	$183.20	PODL	Single
8.15-2014 (R2019)	Nuclear Criticality Safety Control of Selected Actinide Nuclides	1	$121.00	$121.00	0.00%	$0.00	$121.00	Phone	PDF	80.00%	$96.80	PODL	Single
8.15-2014 (R2019)	Nuclear Criticality Safety Control of Selected Actinide Nuclides	2	$121.00	$242.00	0.00%	$0.00	$242.00	Phone	Printed Edition	75.00%	$181.50	PDLC	Single
8.17-2004 (R2019)	Criticality Safety Criteria for the Handling, Storage, and Transportation of LWR Fuel Outside Reactors	1	$52.00	$52.00	0.00%	$0.00	$52.00	Phone	PDF	80.00%	$41.60	PODL	Single
8.17-2004 (R2019)	Criticality Safety Criteria for the Handling, Storage, and Transportation of LWR Fuel Outside Reactors	2	$52.00	$104.00	0.00%	$0.00	$104.00	Phone	Printed Edition	75.00%	$78.00	PDLC	Single
8.19-2005	Administrative Practice for Nuclear Criticality Safety	3	$57.20	$57.20	0.00%	$0.00	$57.20	Web	PDF	80.00%	$45.76	PODL	MultiUser
8.19-2014 (R2019)	Administrative Practice for Nuclear Criticality Safety	1	$56.00	$56.00	0.00%	$0.00	$56.00	Phone	PDF	80.00%	$44.80	PODL	Single
8.19-2014 (R2019)	Administrative Practice for Nuclear Criticality Safety	2	$56.00	$112.00	0.00%	$0.00	$112.00	Phone	Printed Edition	75.00%	$84.00	PDLC	Single
8.23-2019	Nuclear Criticality Accident Emergency Planning and Response	1	$146.00	$146.00	0.00%	$0.00	$146.00	Phone	PDF	80.00%	$116.80	PDLC	Single
8.23-2019	Nuclear Criticality Accident Emergency Planning and Response	4	$146.00	$584.00	0.00%	$0.00	$584.00	Phone	Printed Edition	75.00%	$438.00	PDLC	Single
8.23-2019	Nuclear Criticality Accident Emergency Planning and Response	1	$146.00	$146.00	0.00%	$0.00	$146.00	Web	PDF	80.00%	$116.80	PDLC	Single
8.23-2019	Nuclear Criticality Accident Emergency Planning and Response	1	$146.00	$146.00	0.00%	$0.00	$146.00	Web	Printed Edition	75.00%	$109.50	PDLC	Single
8.24-2017	Validation of Neutron Transport Methods for NCS	1	$121.50	$121.50	0.00%	$0.00	$121.50	Web	PDF	80.00%	$97.20	PODL	Single
8.24-2017	Validation of Neutron Transport Methods for NCS		$607.60	$607.50	0.00%	$0.00	$607.50	ANS	Printed Edition	100.00%	$607.50	PODL	Single
HPSSC-6.8.1-1981	Location and Design Criteria for Area Radiation Monitoring Systems for LWRs	1	$69.30	$69.30	0.00%	$0.00	$69.30	Web	PDF	80.00%	$55.44	PODL	Single
RA-S-1.3-2017	Standard for Radiological Accident Offsite Consequence Analysis (Level 3 PRA) to Support Nuclear Installation Applications	1	$220.00	$220.00	0.00%	$0.00	$220.00	Phone	Printed Edition	75.00%	$165.00	PODL	Single
		69		**$8,255.01**		**$0.00**	**$8,255.01**						

Subtotal: $6,579.18

Subscriptions: $ 8,634.60

Total: $15,213.78

Current Associate Member List (10/26/2020)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC
1	Margaret Kurtts	Student Section Solicitation 2014	8/12/2014	30.2	RARCC
2	Matthew Hertel	Random	3/31/2015	3.15 WGC Muhlheim 59.3-On Hold 58.9-No WGC	LLWRCC
3	Theresa Cutler	Recruited by ANS-8.23 WGC/Baker	10/24/2015	8.10	NCSCC
4	Paul Romano	YMG Solicitation 2015	5/13/17 placed on WG	10.4	SRACC
5	Enerel Munkhzul	YMG Solicitation 2015	1/15/2016	30.2	RARCC
6	Blaine Rice	Invited by J. Baker	10/1/2015	8.23	NCSCC
7	Ning Zhang	random	2014	8.1	NCSCC
8	Steven Thompson	random	6/20/16	19.10	SRACC
9	Amir Bahadori	random	5/27/2016	2.22 6.4.2	ESCC SRACC
10	Matthew Chapa	random	10/11/2016	8.19	NCSCC
11	Charles Cohen	NN	6/21/2019	19.6.1	SRACC
12	R. Patrick White	responded to N&D call out for volunteers for 30.3	7/21/2017	30.3	LLWRCC
13	Kelsey Amundson	random	6/30/2017	8.19	NCSCC
14	Vaibhav Yadav	YMG Solicitation 2017	10/4/2017	LPSD WG	JCNRM
15	Arielle Miller	submitted new VF after attending NCS Std Forum @ 2017 Winter Meeting	11/2/2017	'8.1	NCSCC
16	Travis Wilson	random	9/26/17 & resubmitted 12/20/2017 by M. Crouse	8.22 '8.7	NCSCC
17	Quentin Newell	random	1/23/2017	8.1 '8.12	NCSCC
18	Konner Casanova	random	9/21/2017	8.23	NCSCC
19	Jennifer Lyons	random	5/1/2018	8.19	NCSCC
20	Brandon Chisholm	Random	8/20/2018	20.2	RARCC
21	Hannah Morbach	Random	9/7/2018	8.3	NCSCC
22	Joshua Kane Halsted	2018 Student Broadcast	9/28/2018	15.22	RARCC
23	Jason M. Crye, PhD	Suggestion from D. Bowen	9/5/2018	8.10	NCSCC
24	Kristina Spencer, PhD	Suggested during course at UofNM	9/21/2018	8.17	NCSCC
25	Shawn Henderson	Suggestion from J. Miller	11/19/2018	8.24	NCSCC
26	Erik Slobe	random	1/4/2019	60.1	LLWRCC

Current Associate Member List (10/26/2020)

27	William ("Will")John Zywiec	random	1/24/2019	8.3	NCSCC
28	Showq Ali Y Sama	Saw on our website	5/2/2019	57.9	FWDCC
29	Gary Ly	J. Miller/SNL recommended	3/28/2019	8.19	NCSCC
30	Izabela Gutowska, PhD	saw notice in NN	5/20/2019	53.1	RARCC
31	Andrew Arend	random	6/17/2019	8.1	NCSCC
32	Austin McGee	random	11/15/2017	8.17	NCSCC
33	Giulio Malinverno	random	7/13/2019	10.4	SRACC
34	Michelle Evans	Responsd to NE local sec. chair email	7/17/2019	2.3	ESCC
35	Joshua Butler	Heard about program from co-worker, T. Stover.	8/12/2019	ANS-8.14	NCSCC
36	William T. Gerding	Talked directly to 8.7 WGC and then submitted VF	9/4/2019	ANS-8.7	NCSCC
37	Michael Fendler	random	9/24/2019	ANS-8.22	NCSCC
38	Vikram (Vik) Singh	referred by associate	10/16/2019	ANS-20.2	RARCC
39	Chelsea Gunter	Feb 2017 NSN Brief	2/16/2017	57.11	NRNFCC
40	Lorenzo Vergari	reccommended by R. Scarlati	3/25/2020	ANS-20.2	RARCC
41	Gabriel Grant	resp to NN ad for 57.1	8/12/2019	ANS-57.9	FWDCC
42	James Busen	solicited by 8.21 WGC D. Erickson for 8.21	12/9/2019	ANS-8.21	NCSCC
43	Ashkhen Nalbandyan	Responded to email from J. Kutsch, 20.2 Secretary	12/20/2020	ANS-20.2	ESCC
44	Fan Zhang	Recruited by 3.15 WGC M. Muhleim	2/18/2020	ANS-3.15	LLWRCC
45	Joseph Chaudhari	website	3/25/2020	ANS-56.2	LLWRCC
46	Kurt Harris	NSN	4/20/2020	ANS-57.9	FWDCC
47	Ana Jambrina	ANS News-Website	5/12/2020	9/3/2020	SRACC
48	Jessica Gee	ref by colleague	9/1/2020	9/8/2020	RARCC
49	Trevor Wind	ANS Website	8/31/2020	10/27/2020	ESCC

Upgraded Associate Member List (10/26/20)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC	Upgrade Date
1	Mihai Diaconeasa	Random	5/7/2014	30.1 2.34	RARCC ESCC	3/19/2019
2	Shilp Vasavada	NAYGM 2015 solicitation	11/18/2015	3.13 2.26	LLWRCC ESCC	1/22/2019
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 Finfrock	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
10	Katherine McCurry (Steddenbenz)	random	12/20/2017	8.12	NCSCC	5/31/2019
11	Jeremy Gustafson	YMG 2015 Solicitation	11/1/2015	ANS-56.8	LLWRCC	9/26/2019
12	Dallas Moser	recommended by K. Wessels	12/3/2019	ANS-8.1	NCSCC	3/25/2020
13	Dong (Allen) Wang	random	7/1/2014	3.5.1	LLWRCC	5/20/2020
14	Nima Fathi	YM solicitation	11/19/2015	10.4	SRACC	6/16/2020

The following associate members participate on more than one WG and have been upgraded on one or more WGs but remain listed on the list of current AsMs.

Kurt Harris upgraded on ANS-20.2; AsM on ANS-57.9.
Kelsey Amundson upgraded on ANS-8.20 & ANS-8.26; AsM on ANS-8.19.
Arielle Miller upgraded on ANS-8.12 & ANS-57.11; AsM on ANS-8.1.
Theresa Cutler upgraded on ANS-8.1, ANS-8.3, ANS-8.20, ANS-8.23 & ANS-8.26; AsM on ANS-8.10.
Ning Zhang ugraded on ANS-8.15; AsM on ANS-8.1.
Konner Casanova upgraded on ANS-8.3; AsM on Ans-8.23.
Chelsea Gunter added as full member on Ans-60.1; AsM on ANS-57.11

Resigned/Lost Associate Member List (Updated 10/26/20)

	Name	Solicitation or Random	Date VF Rec'd	PLACEMENT	CC
1	Chelsea Sutton (Maiden Name: Weaver)	Not sure but on 8.3 since 2014	1/2014	8.3	NCSCC
2	Chelsea Collins	Student Section Solicitation 2014	8/13/2014	8.3	NCSCC
3	Joseph (Joe) Kopacz	Student Section Solicitation 2014	8/12/2014	3.13	LLWRCC
4	Cailyn Ludwig	Student Section Solicitation 2014	8/12/2014	3.14	NRNFCC
5	Benjamin (Ben) Prewitt	Student Section Solicitation 2014	8/12/2014	20.1	RARCC
6	Manit Shah	Student Section Solicitation 2014	8/12/2014	6.4.3, (past AsM of 57.2 & 57.3)	SRACC
7	Manish Sharma	Student Section Solicitation 2014	8/12/2014	6.4.3	SRACC
8	Gregory Suehr	Student Section Solicitation 2014	8/12/2014	57.2/52.73	FWDCC
9	Mara Watson	Student Section Solicitation 2014	8/12/2014	ESCC	ESCC
10	Tim Stout	Random	8/27/2014	ANS-58.9	LLWRCC
11	Christopher Courtenay	YMG Solicitation 2015	11/2015	ANS-2.25	ESCC
12	Philip Jensen	YMG Solicitation 2015	11/2/2015	ANS-3.14	NRNFCC
13	Siddharth Suman	YMG Solicitation 2015	11/11/2015	ANS-8.20	NCSCC
14	Matthew Lynch	YMG Solicitation 2015	11/1/2015	8.1	NCSCC
15	Bristol Hartlage	YMG Solicitation 2015	11/1/2015	3.15	LLWRCC
16	Umer Shahid	saw notice in NN	6/12/2018	57.8	FWDCC
17	Stanley Tackett	Student Section Solicitation 2014	8/12/2014	6.4.2	SRACC
18	Dylan Robideaus	Random	2/5/2014	8.7	NCSCC
19	Timothy Crook	random	6/8/2017	ANS-20.2	RARCC

ATTACHMENT 6

Standards Board Report of COMPLETED Action Items for Concurrence			
Action Item	**Description**	**Responsibility**	**Status/Comments /Reassignments**
6/2020-02:	Pat Schroeder to make sure that future election ballots of new members include resumes	Schroeder	Completed
6/2020-04	Pat Schroeder to distribute the current ANS Change Plan to members.	Schroeder	Completed
6/2020-09	Pat Schroeder to include a discussion on the LLWRCC agenda for the July teleconference to discuss the path forward for ANS-3.8.7, "Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities."	Schroeder	Completed Included on July 2020 and November 2020 agendas.
6/2020-10	Pat Schroeder to provide Michelle French the history of ANS-3.8.7, "Properties of Planning, Development, Conduct, and Evaluation of Drills and Exercises for Emergency Preparedness at Nuclear Facilities," and letter from NEI with their position on draft standard ANS-3.8.7.	Schroeder	Completed
6/2020-12	Steven Stamm to work with Prasad Kadambi on updating RP3C actions on the SMART Matrix with the proposed changes to include specificity.	Stamm, Kadambi	Completed
6/2020-13	Donald Spellman to work with Steven Stamm to update the actions for the External Communications Task Group Chair.	Spellman, Stamm	Completed
6/2020-14	Steven Stamm to send the revised SMART Matrix to the Standards Board for review and comment.	Stamm	Completed
6/2020-16	Pat Schroeder to add an agenda item for the November 2020 meeting to discuss initiating a new standard when a standardized practice has not been established.	Schroeder	Completed
6/2020-17	Donald Spellman to work with Pat Schroeder to explore the benefit of ANS on adopting ISO standards.	Spellman, Schroeder	Completed ANSI & ASTM/NTAG agreements required. ANSI gets 50% of gross revenue. Typically, 40% goes to resellers. ANS would get 10% for the bulk of sales but would need to factor in additional staff costs needed for accounting to generate royalty reports/issue checks or wire transfers. ASTMs experience is that program to issue joint standards could not be financially supported.
11/2019-06	Donald Eggett to discuss the standards volunteer database with Mary Lou Dunzik-Gougar to gain her support.	Eggett	Completed Call held August 2020.
11/2019-19	Robert Roche-Rivera to check with NRC and let the Standards Board know when a stakeholders meeting is being held on 10 CFR Part 53, Risk-informed, Technology Inclusive Regulatory Framework for Advanced Reactors Rulemaking.	Roche-Rivera	Completed
6/2019-04	Donald Eggett to contact Mike Tschiltz at NEI to inquire about a new liaison as well as on the availability of their standards priority survey feedback.	Eggett	Completed Eggett held call with NEI on 10/2/20.
11/2018-21	John Nakoski to work on the appointment of a NRC representative to the LLWRCC.	Nakoski	Completed David Desaulniers nominated by NRC to the LLWRCC. Member approval ballot closed 11/10/20.

ATTACHMENT 7

ASME Nuclear Codes and Standards Presentation to American Nuclear Society – November 17, 2020

Tom Vogan
Chair, Board on Nuclear Codes & Standards

Ron Lippy
Vice Chair, Board on Nuclear Codes & Standards

Ally Byk
ASME, Director Nuclear Codes & Standards

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Overview

- ASME Consensus Process
- Principle Nuclear Codes and Standards
- Joint Efforts in Nuclear Codes & Standards

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Charter

The charter of the Board on Nuclear Codes and Standards is the management of all ASME activities related to codes, standards and guides directly applicable to nuclear facilities and technology.

Nuclear Codes and Standards Consensus Process

- Procedures accredited by the American National Standards Institute (ANSI)
- Decisions are reached through ***consensus*** among those affected.
- Participation is ***open*** to all affected interests: no membership fees or requirement to be ASME society member
- ***Balance*** is maintained among competing interests
  - Designers, Manufacturers, Users, Regulators, General Interests, etc.
- The process is ***transparent*** - information on the process and progress is directly available.

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Nuclear Codes and Standards Consensus Process

- Due ***process*** assures that all views will be considered and that appeals are possible
- The process is ***flexible***, allowing the use of different methodologies to meet the needs of different technology and product sectors
- The process is ***timely***; purely administrative matters do not slow down the work
- Standards activities are ***coherent***, avoiding overlap or conflict
- Consistent with Principles of WTO Technical Barriers to Trade Agreement

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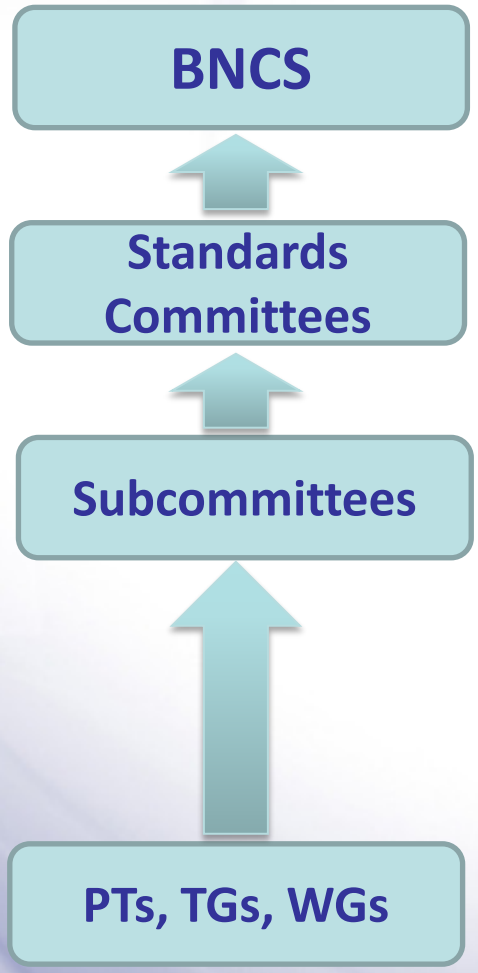
The Consensus Document Development Process



The Board provides procedural oversight for all NCS

Establishes consensus on all technical matters in a given subject area – e.g. Nuclear Quality Assurance

Provides recommendations to the standards on technical matters in a given specialty –

Assessment and Verification, Applications, Engineering and Procurement, Interfaces and Administration, Program Management Process, Software Quality Assurance, Waste Management

Develops detailed proposals in a specific field

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Board on Nuclear Codes and Standards Organization

<table>
<tr><td colspan="2">The BNCS membership consists of a Chair, two Vice-chairs, Members at Large, Ex-officio Members (Chairs of sub-tier committees), Liaison Members, Contributing Members, and ASME Staff.
Currently BNCS has a total of 43 Members</td></tr>
<tr><td>Committee on BNCS Operations (CBO)</td><td>Committee on BNCS Strategic Initiatives (CBSI)</td></tr>
<tr><td>BNCS Committee on Honors and Awards</td><td rowspan="2">BNCS Honorary Members</td></tr>
<tr><td>BNCS Task Group on Regulatory Endorsement</td></tr>
<tr><td colspan="2">Standards Committees (Consensus Committees)</td></tr>
</table>

Nuclear Codes and Standards Committees (Consensus Committees)

BPV Committee on Construction of Nuclear Facility Components (III) 5 Divisions	BPV Committee on Nuclear In-service Inspection (XI) 2 Divisions
Standards Committee on Nuclear Quality Assurance (NQA)	Standards Committee on Operation and Maintenance of Nuclear Power Plants (O&M)
Standards Committee on Qualification of Mechanical Equipment Used in Nuclear Facilities (QME)	Standards Committee on Cranes for Nuclear Facilities (CNF)
Standards Committee on Plant Systems Design (PSD)	Standards Committee on Nuclear Air and Gas Treatment (CONAGT)
ASME/ANS Joint Committee on Nuclear Risk Management (JCNRM)	

ASME BPVC Section III

Rules for Construction of Nuclear Facility Components

Section III establishes rules of safety relating only to **pressure integrity**, which governs the **construction** of boilers, pressure vessels, transport tanks, nuclear components **and their supports**.

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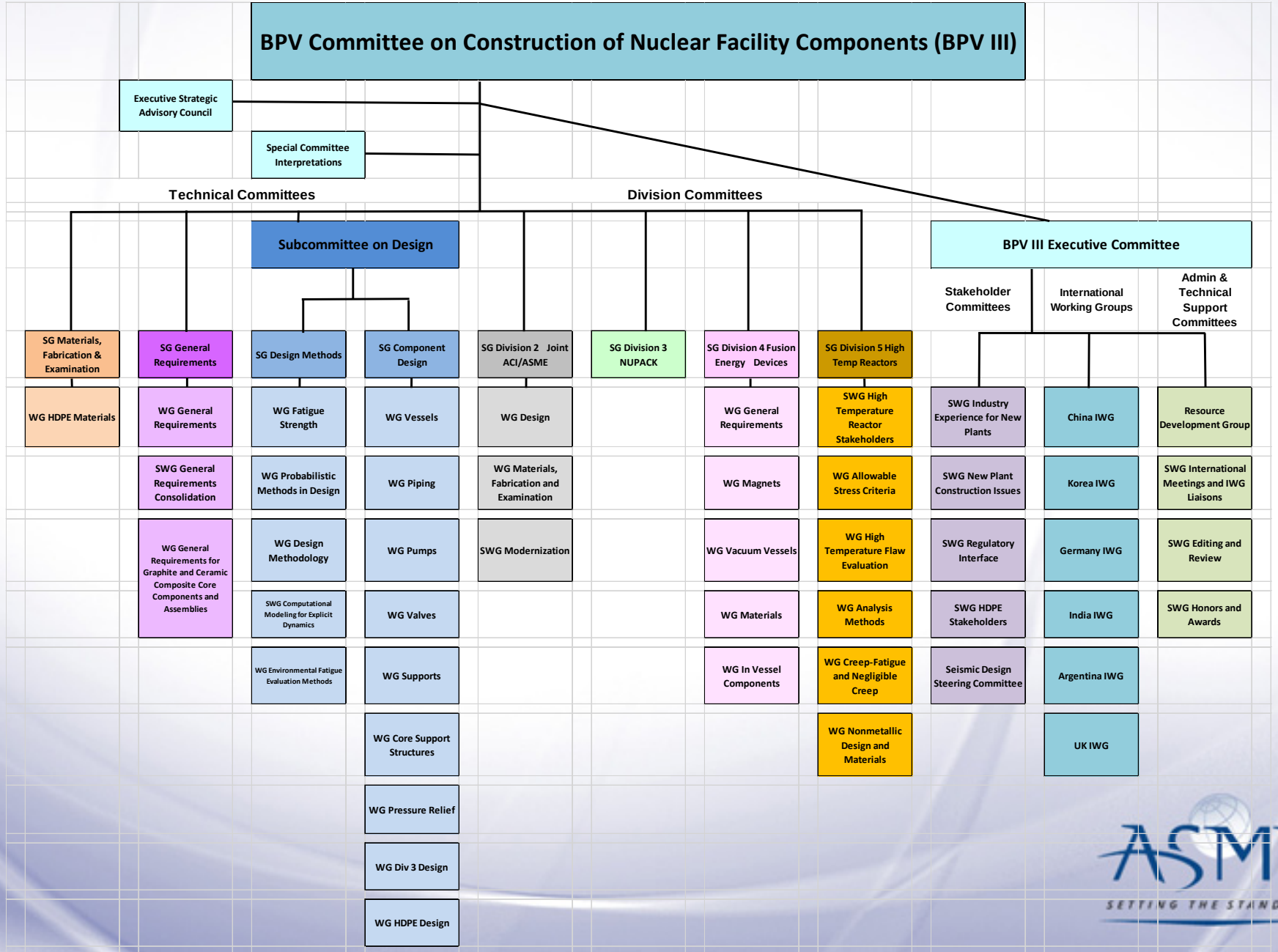
BPV III Committee Organization



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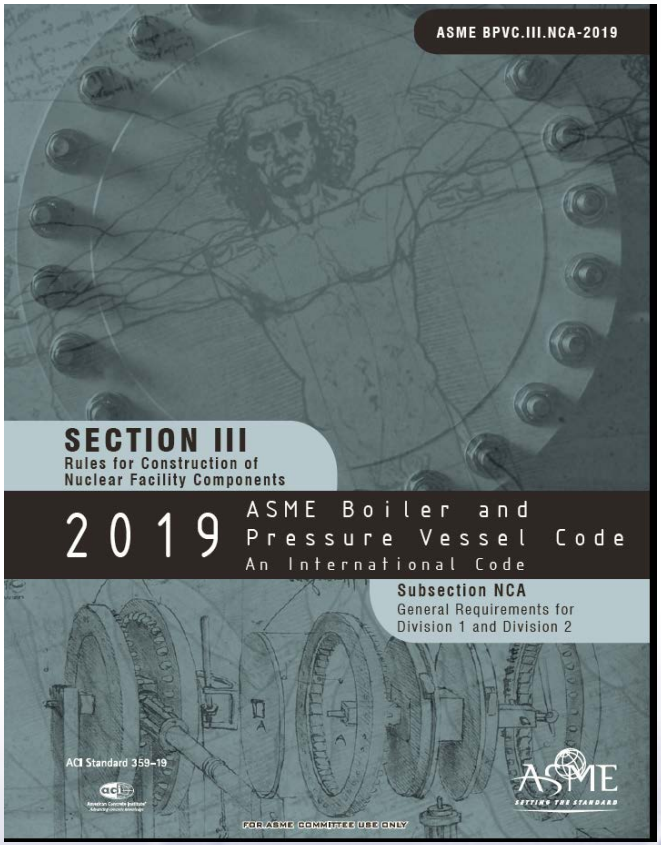
ASME BPVC Section III 2019

Rules for Construction of Nuclear Facility Components

- **Division 1:** Metallic vessels, heat exchangers, storage tanks, piping systems, pumps, valves, core support structures, supports, and similar items.
- **Division 2**: Code for Concrete Containments
- **Division 3:** Containment Systems for Transportation and Storage of Spent Nuclear Fuel and High-Level Radioactive Material
- **Division 4:** Fusion Energy Devices
- **Division 5:** High Temperature Reactors



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Section III, Division 1

- Metallic vessels, heat exchangers, storage tanks, piping systems, pumps, valves, core support structures, supports, and similar items.
- 6 Subsections
  - **Subsection NB:** Class 1 Components
  - **Subsection NC:** Class 2 Components
  - **Subsection ND:** Class 3 Components
  - **Subsection NE:** Class MC Components
  - **Subsection NF:** Supports
  - **Subsection NG:** Core Support Structures

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Section III, Division 2

Code for Concrete Containments (Subsection CC)

- Joint effort with the American Concrete Institute
  - Dual Standard, ACI-359/ASME BPVC III, Division 2
- Establishes rules for material, design, fabrication, construction, examination, testing, marking, stamping, and preparation of reports for pre-stressed and reinforced concrete containments.
- The containments covered by this Subsection include the following:
  - structural concrete pressure resisting shells and shell components
  - shell metallic liners
  - penetration liners extending the containment liner through the surrounding shell concrete

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Section III, Division 3

Containment Systems for Transportation and Storage of Spent Nuclear Fuel and High-Level Radioactive Material

- Contains the requirements for construction of individual components and parts that comprise containment systems used for the transportation and/or storage of spent nuclear fuel and high-level radioactive material.
  - **Subsection WA** addresses general requirements for Division 3 Containments
  - **Subsection WB** addresses requirements for Transportation Containments, Class TC
  - **Subsection WC** addresses requirements for Storage Containments, Class SC
  - **Subsection WD (NEW)** addresses requirements for Internal Support Structures, Class ISS

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Section III, Division 4

Fusion Energy Devices

- **Subsection FA — General Requirements**
  - Subpart A — Fusion Devices
  - Subpart B — Magnetic Confinement
  - Subpart C — Inertial Confinement
- **Subsection FB — Pressure Boundary Components**
  - Subpart A — Magnets
  - Subpart B — Vacuum Vessel (TBD)
  - Subpart C — Target Chamber (TBD)
- **Subsection FC — In Vessel Components (TBD)**
- **Subsection FD — Materials (TBD)**
- **Subsection FE — Support Structures (TBD)**
- **Subsection FF — Balance of Plant (TBD)**
- **Subsection FG — Appendices (TBD)**

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Section III, Division 5

High Temperature Reactors

- **Subsection HA — General Requirements**
  - Subpart A — Metallic Materials
  - Subpart B — Graphite Materials
  - Subpart C — Composite Materials
- **Subsection HB — Class A Metallic Pressure Boundary Components**
  - Subpart A — Low Temperature Service (<700°F - 800°F)
  - Subpart B — Elevated Temperature Service (>700°F - 800°F)
- **Subsection HC — Class B Metallic Pressure Boundary Components**
  - Subpart A — Low Temperature Service
  - Subpart B — Elevated Temperature Service
- **Subsection HF — Class A and B Metallic Supports**
  - Subpart A — Low Temperature Service
- **Subsection HG — Class A Metallic Core Support Structures**
  - Subpart A — Low Temperature Service
  - Subpart B — Elevated Temperature Service
- **Subsection HH — Class A Nonmetallic Core Support Structures**
  - Subpart A — Graphite Materials
  - Subpart B — Composite Materials

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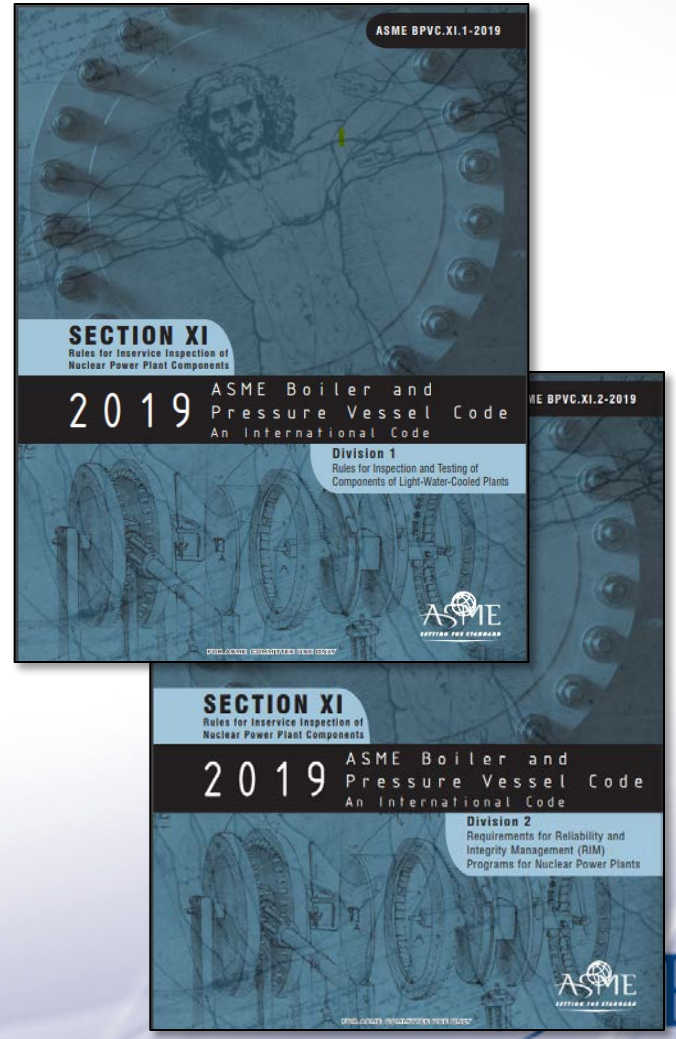
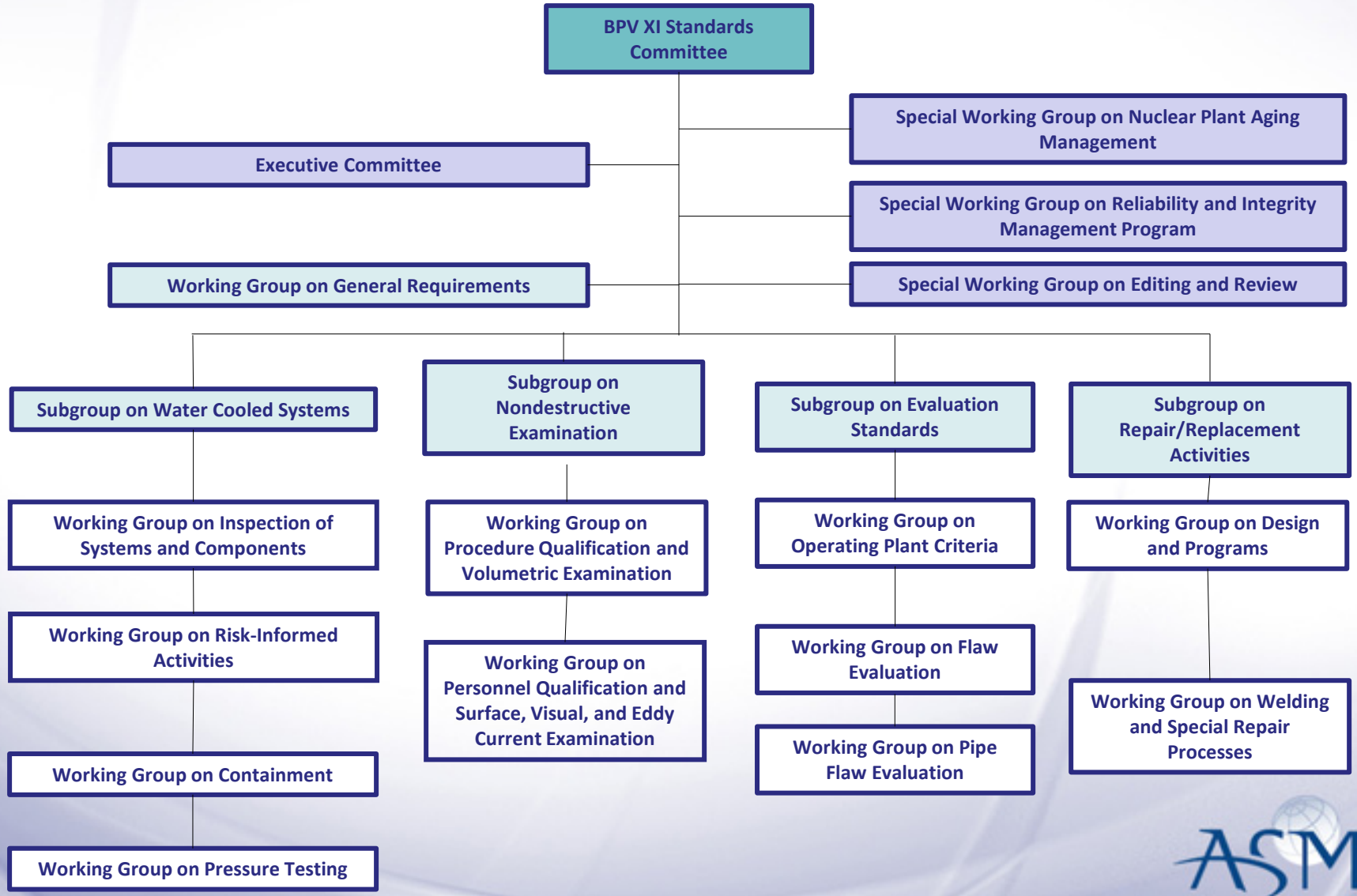
ASME BPVC Section XI 2019

Rules for Inservice Inspection of Nuclear Power Plant Components

- **Division 1**
  - Rules for Inspection and Testing of Components of **Light Water-Cooled** Plants
- **Division 2**
  - Requirements for Reliability and Integrity Management (RIM) Programs for Nuclear Power Plants



BPV XI Committee Organization



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Section XI, Division 1

Subsections

- **IWA** – General Requirements
- **IWB** – Requirements for Class 1 Components of Light-Water Cooled Plants
- **IWC** – Requirements for Class 2 Components of Light-Water Cooled Plants
- **IWD** – Requirements for Class 3 Components of Light-Water Cooled Plants
- **IWE** – Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Plants
- **IWF** – Requirements for Class 1, 2, 3, and MC Components Supports of Light-Water Cooled Plants
- **IWG** – Core Internal Structures (In course of preparation)
- **IWL** – Requirements for Class CC Concrete Components of Light-Water-Cooled Plants

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Section XI, Division 2

Reliability and Integrity Management (RIM)

- **RIM-1000:** Scope and Responsibility
- **RIM-2000:** Reliability and Integrity Management (RIM) Program
- **RIM-3000:** Acceptance Standards
- **RIM-4000:** Repair/Replacements Activities
- **RIM-5000:** System Leak Monitoring and Pressure Tests
- **RIM-6000:** Records and Reports
- **RIM-9000:** Glossary

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Standards Committee on Nuclear Quality Assurance (NQA)

NQA Subcommittees:

- SC on Applications
- SC on Assessment and Verification
- SC on Engineering and Procurement
- SC on Interfaces and Administration
- SC on Program Management Process
- SC on Software Quality Assurance
- SC on Waste Management
- SC on International Activity
- NQA EU International Working Group
- NQA China International Working Group

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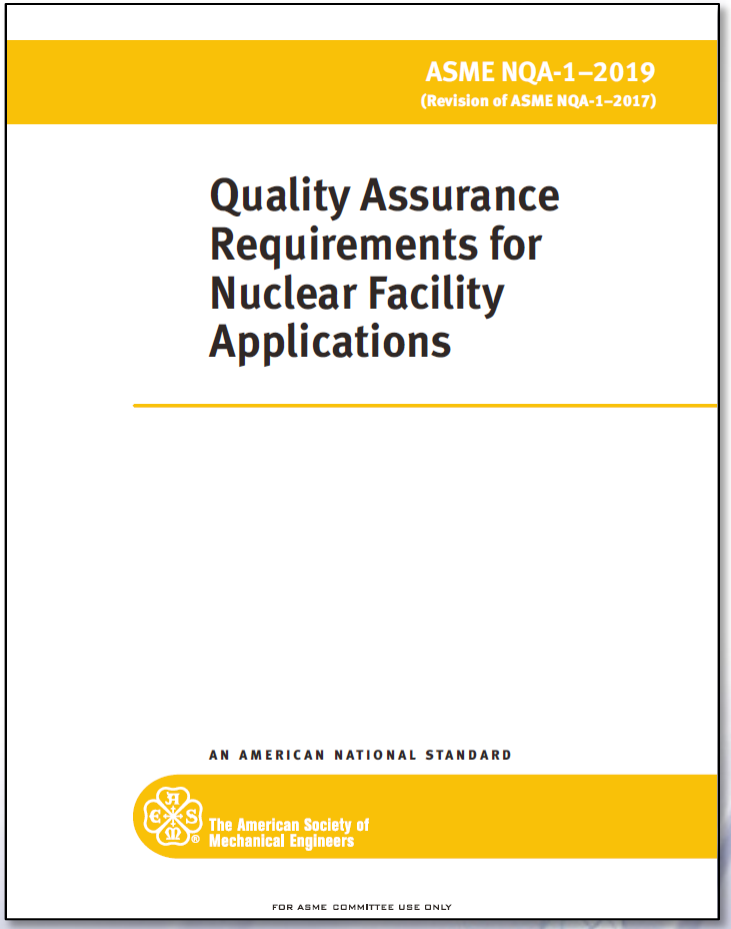
Quality Assurance Requirements for Nuclear Facility Applications (NQA-1 2019)

This Standard provides requirements and guidelines for the establishment and execution of quality assurance programs during siting, design, construction, operation and decommissioning of nuclear facilities. This Standard reflects industry experience and current understanding of the quality assurance requirements necessary to achieve safe, reliable, and efficient utilization of nuclear energy, and management and processing of radioactive materials.



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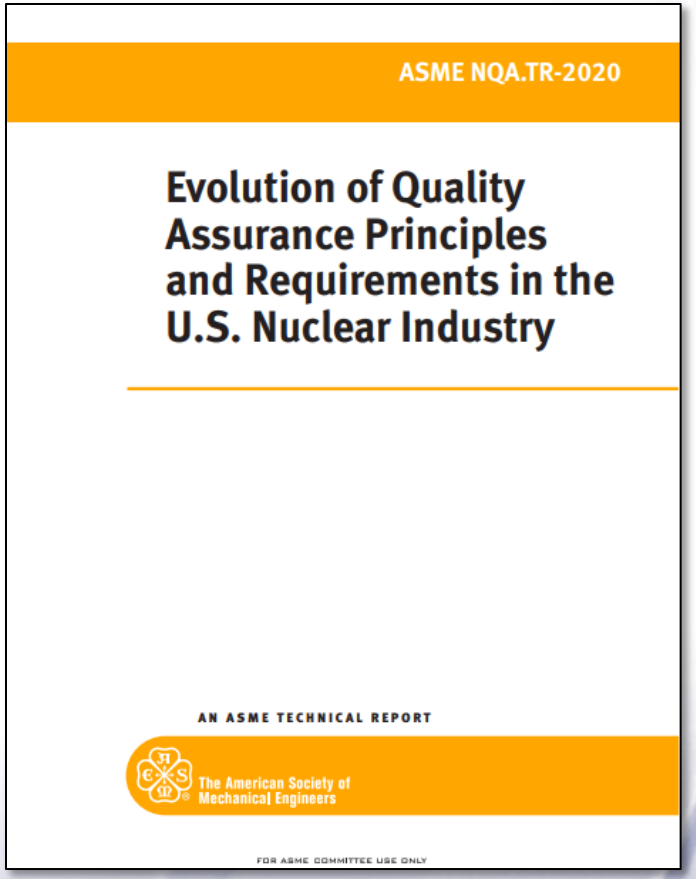
Evolution of Quality Assurance Principles and Requirements in the U.S. Nuclear Industry (NQA-TR 2020)

This Technical Report provides a historical summary of the principles, practices, and requirements of quality assurance standards across the nuclear industry from 1954 to the present. It details the origins of nuclear quality assurance techniques such as quality control and inspection requirements during World War II, and the subsequent nuclear vessel codes and standards that emerged in the early 1960s. The purposes of and benefits derived from these early engineering efforts are provided with their historical context. This Technical Report provides a thorough timeline of the evolution of quality assurance across the nuclear industry (primarily in the United States) and a discussion of today's practices to ensure high integrity in the design, operation, and decommission of U.S. nuclear facilities.



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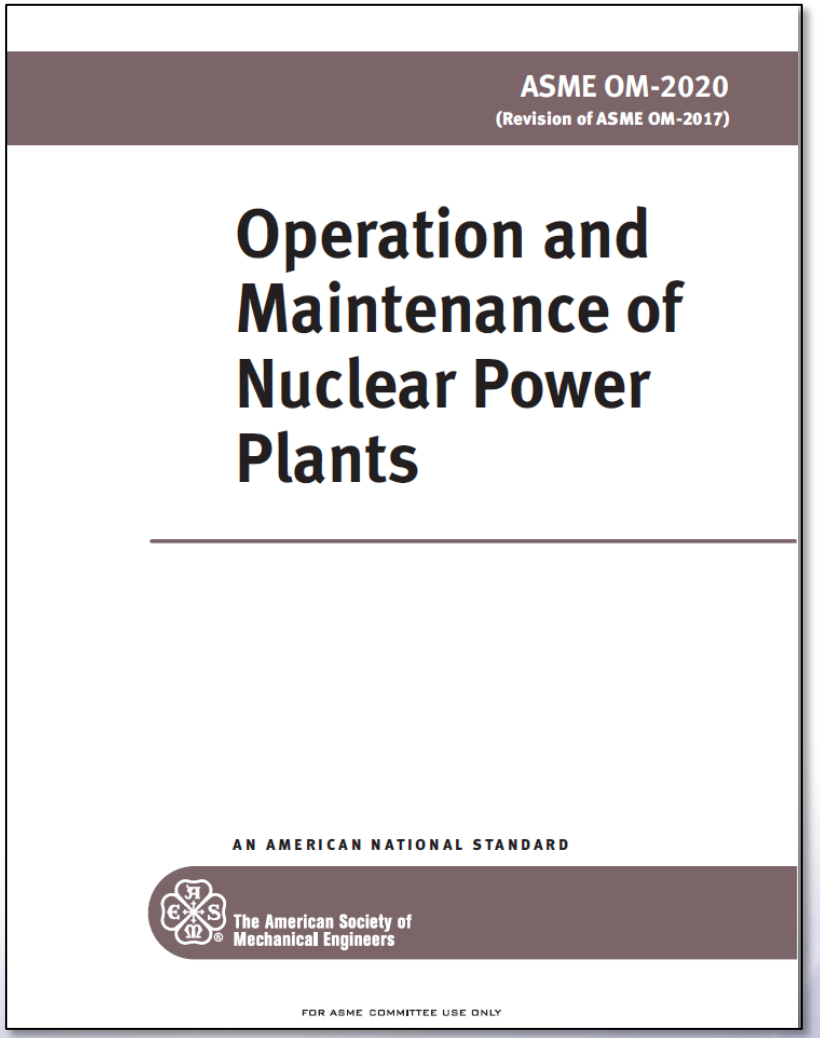
Standards Committee on the Operation and Maintenance of Nuclear Power Plants (O&M)



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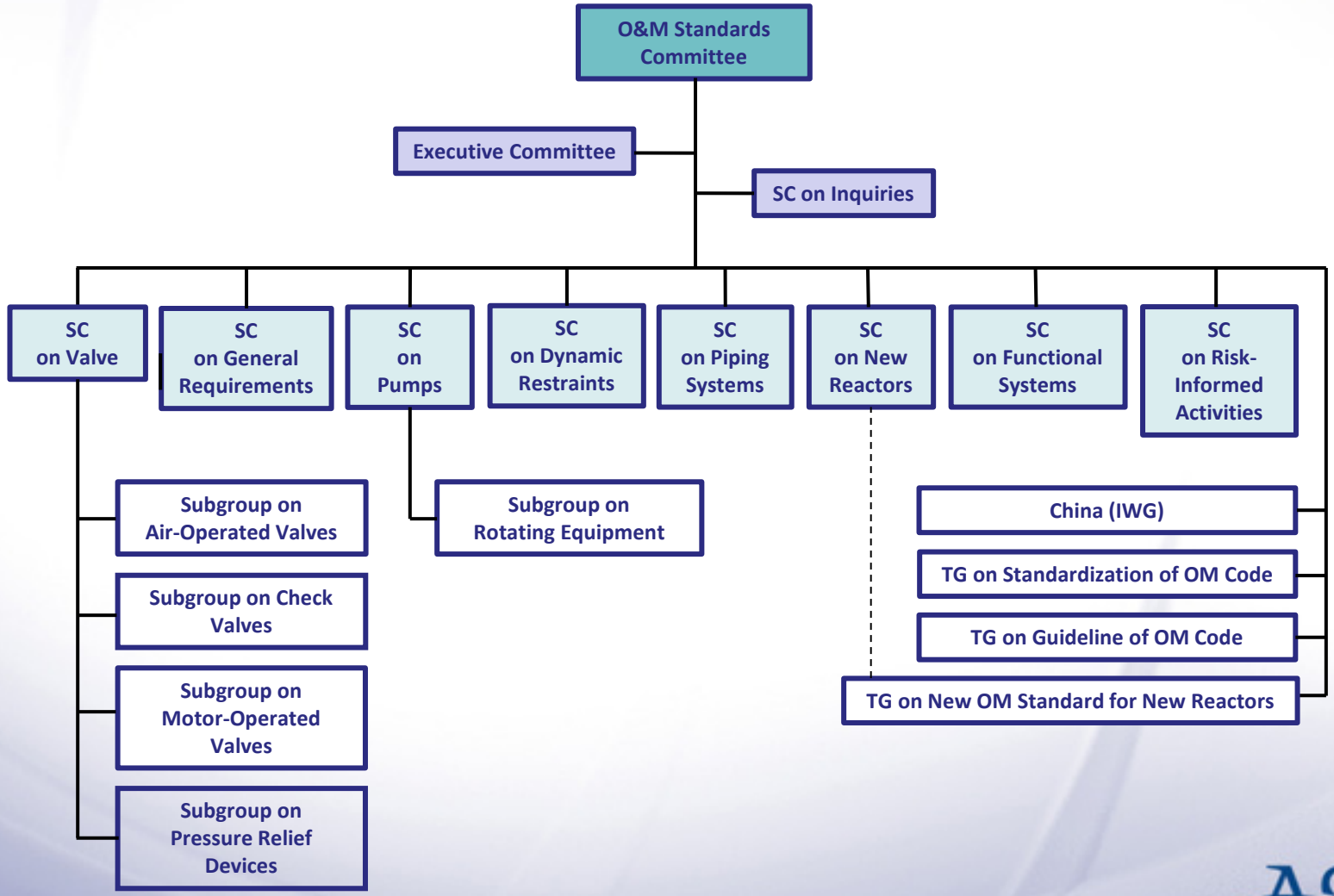
O&M Committee Organization



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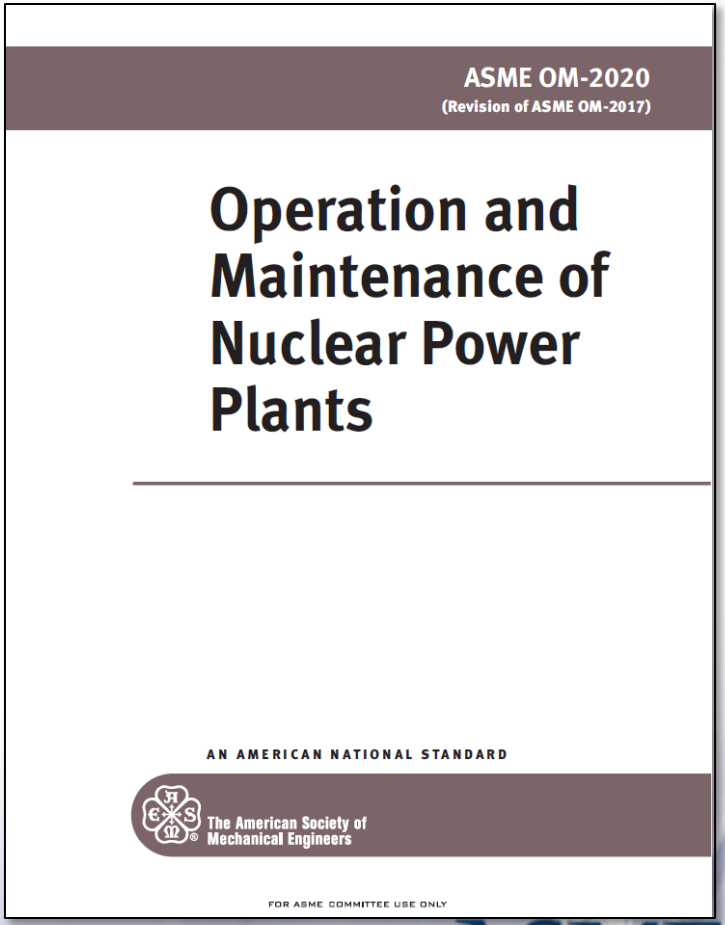
Code for Operation and Maintenance of Nuclear Power Plants (OM)

- 3 Divisions
- Establishes the requirements for preservice and inservice testing and examination of certain components to assess their operational readiness in light-water reactor power plants.
- Identifies the components subject to test or examination, responsibilities, methods, intervals, parameters to be measured and evaluated, criteria for evaluating the results, corrective action, personnel qualification, and record keeping.



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Standards Committee Qualification of Mechanical Equipment Used in Nuclear Facilities (QME)

QME Subcommittees:

- SC on General Requirements
- SC on Qualification of Active Dynamic Restraints
- SC on Qualification of Pump Assemblies
- SC on Qualification of Valve Assemblies
- QME China International Working Group

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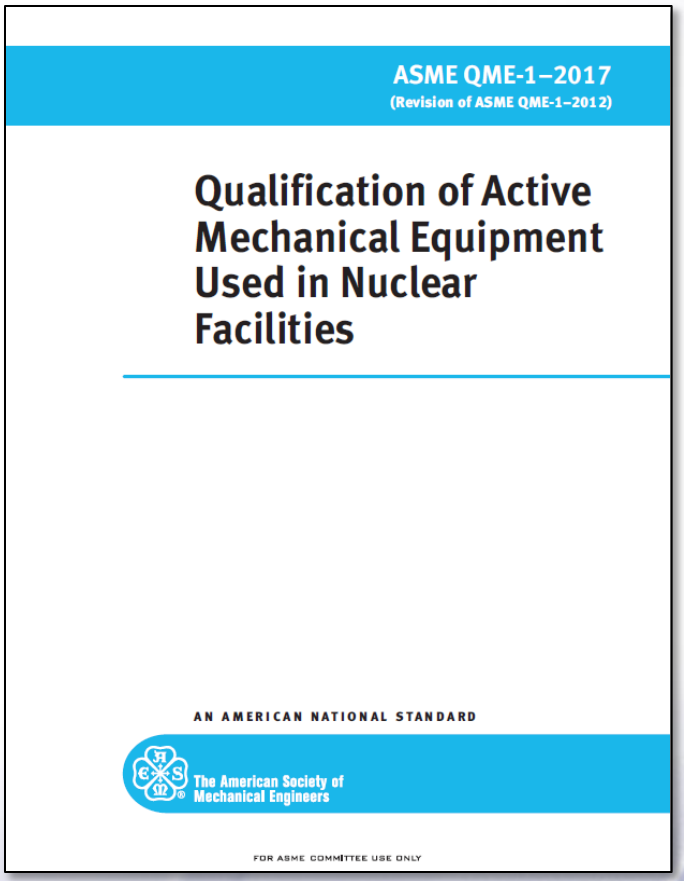
Qualification of Active Mechanical Equipment Used in Nuclear Facilities (QME-1 2017)

Describes the requirements and guidelines for qualifying mechanical equipment, such as pumps, valves, and dynamic restraints, used in nuclear facilities. The requirements and guidelines presented include the principles, procedures, and methods of qualification.



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Standards Committee on Nuclear Air and Gas Treatment (CONAGT)

CONAGT Subcommittees:

- SC Filtration
- SC Technology
- SC Adsorption
- SC Common Equipment
- SC Testing & Inspection
- SC Ventilation & Air Conditioning
- SC Gas Process Treatment
- SC General Support Services

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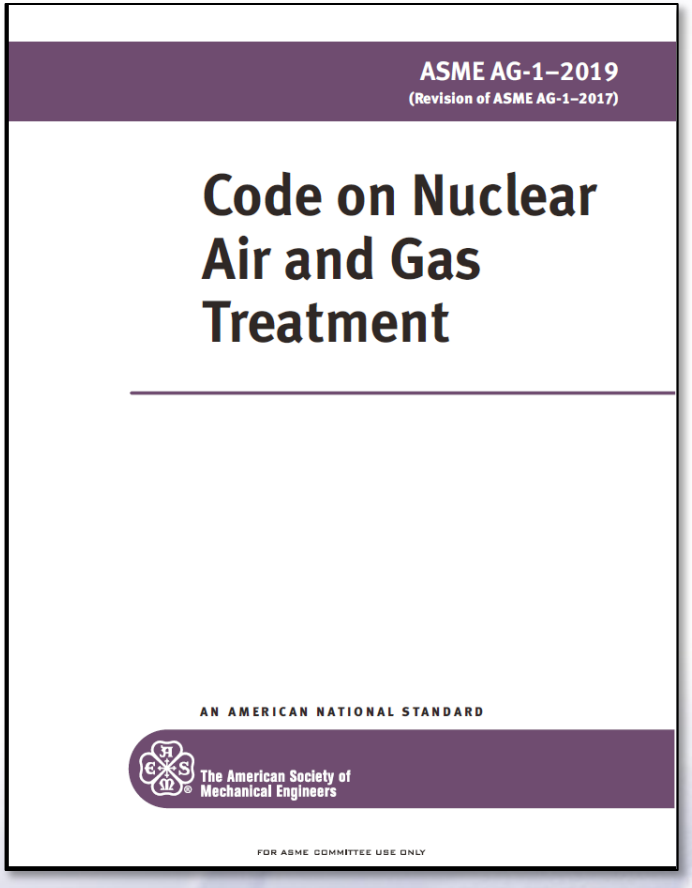
Code on Nuclear Air and Gas Treatment (AG-1 - 2019)

Provides requirements for the performance, design, construction, acceptance testing, and quality assurance of equipment used as components in nuclear safety-related air and gas treatment systems in nuclear facilities.



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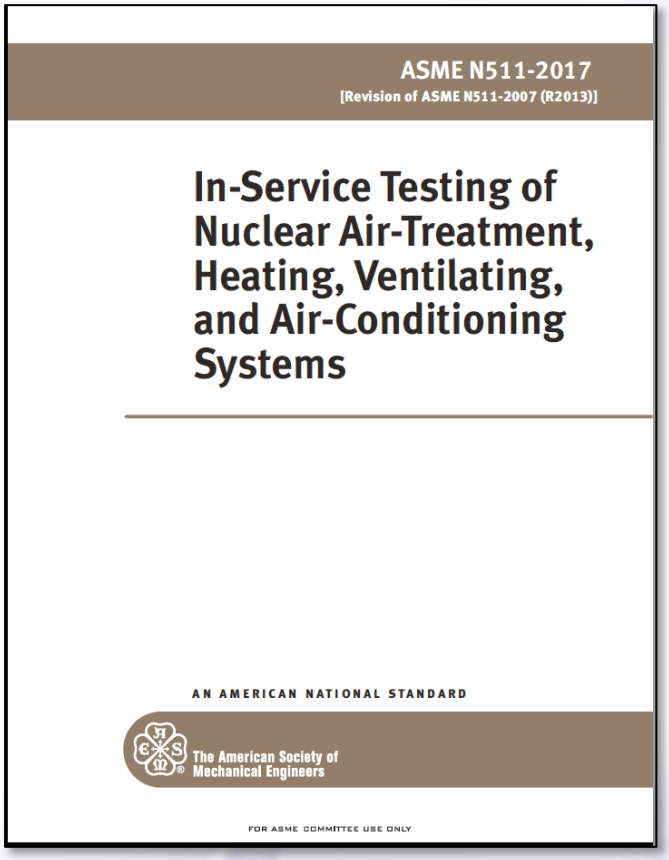
In-Service Testing of Nuclear Air Treatment, Heating, Ventilating, and Air-Conditioning Systems (N511-2017)

This standard covers the requirements for in-service testing of nuclear safety-related air treatment, heating, ventilating, and air conditioning systems in nuclear facilities.



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Standards Committee on Cranes for Nuclear Facilities (CNF)

CNF Subcommittees:

- CNF Engineering Support Subcommittee
- Subcommittee Operation & Maintenance for Cranes

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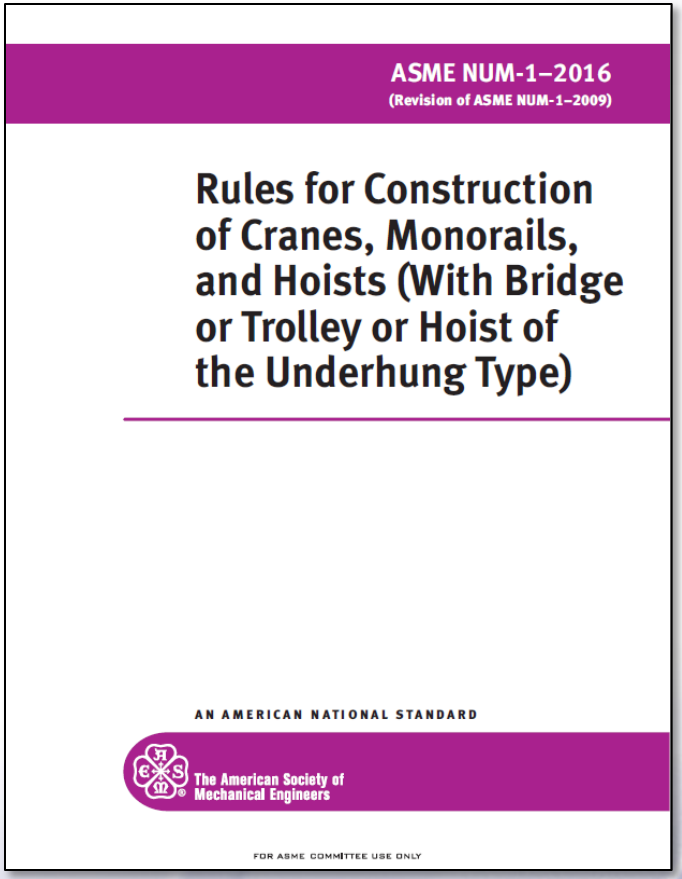
Rules for Construction of Cranes, Monorails, and Hoists (with Bridge or Trolley or Hoist of the Underhung Type) (NUM-1 2016)

This Standard covers underhung cranes, top-running bridge and gantry cranes with underhung trolleys, traveling wall cranes, jib cranes, monorail systems, overhead hoists, and hoists with integral trolleys used in nuclear facilities. All of the above cranes, whether single or multiple girder, are covered by this Standard.



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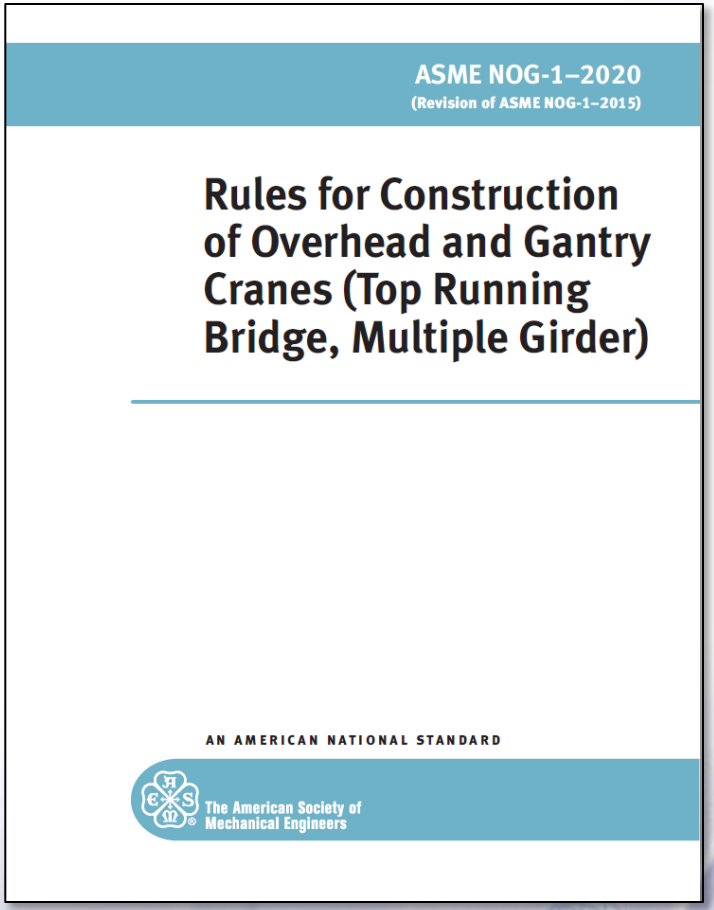
Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder) (NOG-1 2020)

This Standard covers overhead and gantry cranes, including multiple girder cranes with both top-running bridge and trolley, used in nuclear facilities.



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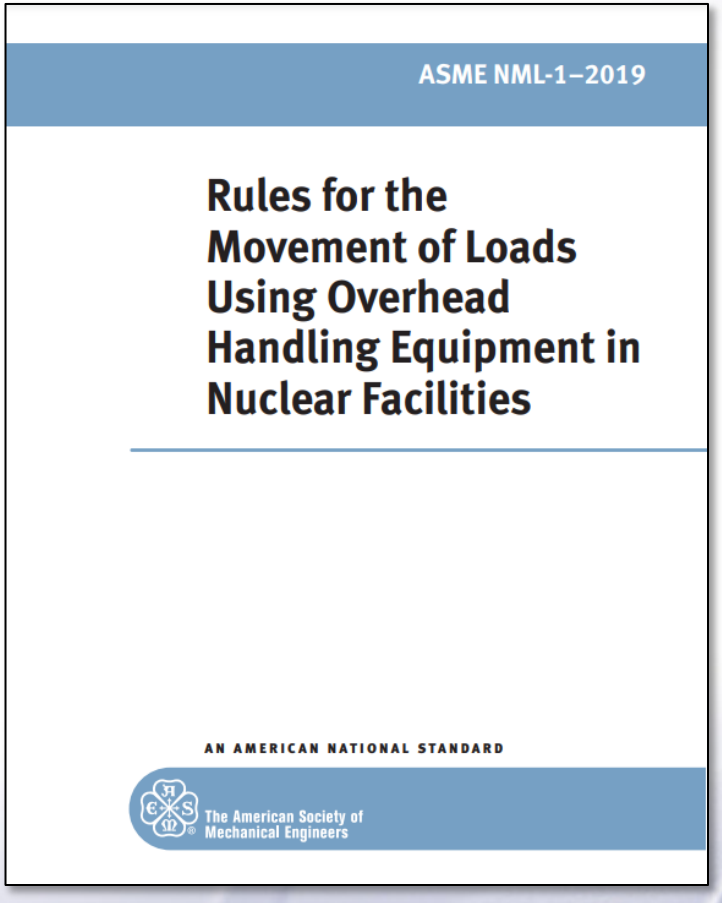
Rules for the Movement of Loads using Overhead Handling Equipment in Nuclear Facilities (NML-1-2019)

This Standard specifies requirements for the movement of loads using overhead handling systems at commercial nuclear facilities.

This Standard applies to all lifting and handling operations at nuclear facilities, including the training and certification of personnel, and the maintenance, inspection, testing, and rework and modification of overhead handling systems and other lifting devices.



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ASME/ANS Joint Committee on Nuclear Risk Management (JCNRM)

JCNRM Subcommittees

- Subcommittee on Risk Application
- Subcommittee On Standards Maintenance
- Subcommittee on Standards Development
- JCNRM China International Working Group
- JCNRM Japan International Working Group

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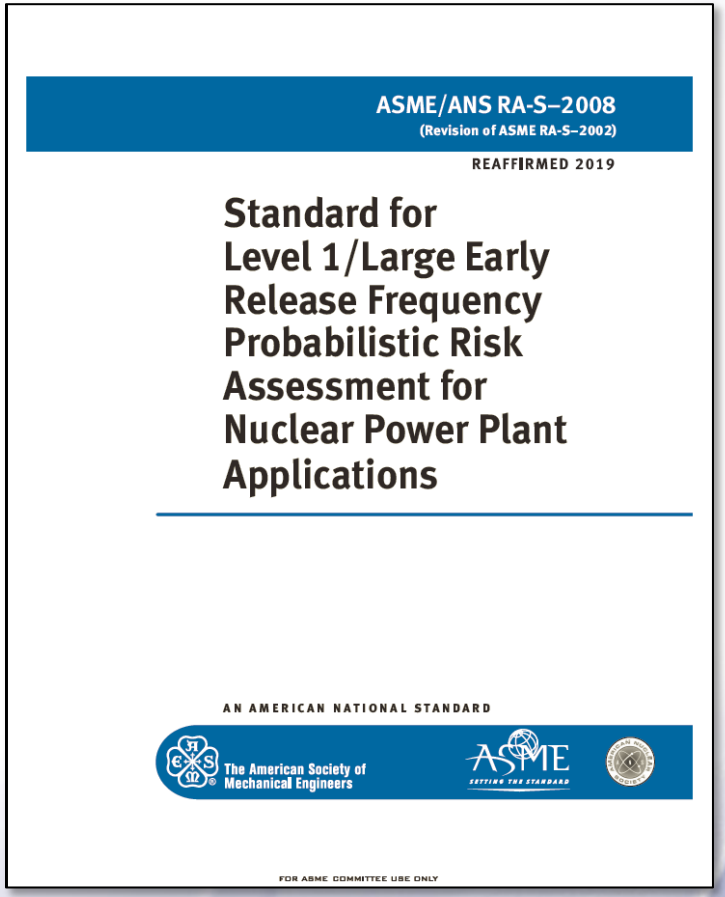
Probabilistic Risk Assessment (PRA) for Nuclear Power Plant Applications (RA-S R2019)

This Standard sets forth requirements for probabilistic risk assessments (PRAs) used to support risk-informed decisions for commercial nuclear power plants and prescribes a method for applying these requirements for specific applications.



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Advance Reactor C&S Activities

- Committee on BNCS Strategic Initiatives (CBSI)
  - Ron Lippy, Chair
  - Develop Tactical, Fundamental and Strategic Plans to support advance reactor designs
  - Implementation by Standards Committees
  - Small Modular Reactors

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Advance Reactor C&S Activities

- Plant Systems Design Standards Committee
  - Technology neutral design standard or guide
- Task Group – Restore US Nuclear Competitiveness
  - Overview existing Codes requirement
  - Quality Assurance consolidation
  - Regulatory overview

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We will now entertain any discussion and questions.

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Thank you for your Attention!

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ATTACHMENT 8

SMART Matrix for ANS SC Strategic Plan – Open Items Only - Update 11/6/2020 (Comments Incorporated)

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 accomplished 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 Priories with Current and Emerging Needs					
A. Develop and implement an approach to collect industry priority needs on an ongoing basis and integrate them into standards committee priorities.	ECTG (External Communications Task Group) Chair	. .	Covered under Goal #4 item A.	See Goal 4. A.	See Goal 4. A.
D.1. Manage the resolution of comments to the RP3C RIPB Guidance Document and send the product to Standards Manager for issuance for use on standards	RP3C Chair	Collect comments and recommendations from Working Groups using the trial use Guidance Document.	Jim O'Brien leading effort		
D.1. Manage the resolution of comments to the RP3C RIPB Guidance Document and send the product to Standards Manager for issuance for use on standards	RP3C Chair	Manage the resolution of comments and send resulting document to Standards Manager for issuance as a policy or procedure.	Jim O'Brien leading effort		
D.3. Conduct training of consensus committees and working groups.	RP3C Chair	Conduct Training for all applicable CCs.	Ongoing	Ongoing Mostly Done	
D.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.	Ed Wallace leading	CoP presentation of 10/30/2020 is first step	
D.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	Contact appropriate organizations to make presentations at NRC RIC, ANS UWC, and owners' groups.	Ed Wallace to lead Currently on going		
D.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	Make presentations at a minimum of 2 groups.	Ed Wallace to lead		

SMART Matrix for ANS SC Strategic Plan – Open Items Only - Update 11/6/2020 (Comments Incorporated)

Initiative	Assigned Responsibility (Functional Title)	Specific Action Items Needed to Accomplish the Initiative	Status/ Comments	Scheduled Completion Date	Actual Completion Date
Goal #3: Improve Standards Development Production and Efficiency					
B. Complete the Standards Volunteer Database to facilitate iting personnel for Standards Committee activities (also supports #5	ANS IT Dept.	ANS IT to complete ANS SC Volunteer Database in accordance with the SB specification			
B. Complete the Standards Volunteer Database to facilitate recruiting personnel for Standards Committee activities (also supports Goal #5	SB/ ANS IT Dept.	SB approves Volunteer Database			
Goal #4: Expand ANS Awareness and External Outreach					
A. Conduct periodic surveys to gain feedback from U.S. and international Standards Developing Organizations.. Provide feedback to survey responders	ECTG Chair	. Develop "*Periodic Global SDO Survey*" to be used to gain support from other standards developers for harmonization with U.S. standards	Periodically report to SB This is time intensive due to the large number of potential contacts	First Draft 3/1/2021	
(NEW). Establish periodic contact with regulatory agencies, owner groups and industry executives to align needs, and build support for development, greater use and harmonization of national standards and potential funding support for critical standards efforts.	ECTG Chair	Develop a list of proposed government agencies, owner groups and industry executives for initial contact. Discuss communications approach with each of the organizations and document agreements reached to support ANS standards efforts.	This is time intensive due to the large number of potential contacts	First Draft 11/1/2021	
(NEW). Develop and issue "*SC external Communications Plan*" Include examples for CC and WG members to use for external communications.	ECTG Chair	Provide an external communications short form plan that can be used by individual CC and WGs to strengthen their external efforts to add technical experts.	SC external communications plan being drafted		

SMART Matrix for ANS SC Strategic Plan – Open Items Only - Update 11/6/2020 (Comments Incorporated)

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 its areas of interest	ECTG Chair	Complete interface plan implementation			
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. the benefit of consensus standards to the industry; and, 3. the advantages to companies, federal and state agencies, and individuals of supporting standards development	ECTG Chair	Review and update presentation. Contact organizations to assess interest.			
H. Contact leading nuclear companies to determine if they issue regular newsletters and offer to provide standards updates for inclusion.	ECTG Chair	Develop list of companies and contacts. Provide Input as needed.			
Goal #5: Improve Industry Representation and Sustainability of Working Groups, Subcommittees, and Consensus Committees					
F. Monitor consensus committee and working group success in staffing and recruitment and share best practices across all consensus committees	CC Chairs	Prepare annual report based on performance data from CC Chairs.	Ongoing		
F. Monitor consensus committee and working group success in staffing and recruitment and share best practices across all consensus committees	SB Vice Chair	Evaluate results of CC reports at SB meetings	LLWRCC evaluating survey results. SB report to be provided.	6/30/2018+ Ongoing	

ATTACHMENT 9

MOTION TO RECONSIDER SB Ballot on Proposed Change to R7 on SB Membership

To: Chair Standards Board

Fm; Steven Stamm

I move to reconsider the SB Ballot on Proposed Change to R7 on SB Membership for the following reasons:

- This is a significant change to the Standards Board and the ballot was conducted without any discussion with the Standards Board. It should not have been balloted without an open discussion and evaluation.
- No evaluation was completed that considered the potential positive and negative impacts of the proposed change. It is not clear that there are any real positive impacts.
- A need to these changes was not provided that adequately justified the changes.
- The increase in membership would increase the length and effectiveness of meetings
- Increasing the number of members makes an individual's ballot less importance which could lower responsiveness.
- The proposed change would permit the ANS President and/or the SB chair to pack the board in a manner that could influence SB operations.

Moved by: Steven Stamm 9/25/2020

Seconded by: _ Donald J. Fellman _____

ATTACHMENT 10

Unofficial Use
"For Information and Discussion Only"

Proposal for the Creation of a "Centralized Industry Steering Committee" to Establish Prioritization of Codes & Standards Primarily to Support Advanced Reactors

by
ANS Standards Board Chair, Don Eggett

October 20, 2020

Background

An ANS/NRC leadership meeting was held September 10, 2020 with the primary outcome to establish a collaborative and more active working relationship between the two parties. In addition, this meeting was intended to further discuss the codes and standards (C&S) needs and strategies of the industry to obtain NRC's perspectives on what they see as near-term priorities. These discussions were driven by ANS Standards Board (SB) Chair, Don Eggett, and set the stage for John Nakoski's (NRC) proposed initiative that a central industry led team be formed/come together with ANS as the suggested lead with all the right participants (DOE, NEI, Standards Development Organizations (SDOs), reactor vendors, end-users, among others) to set priorities on C&S for the industry, primarily for the advanced reactors. The NRC indicated that they wanted to remain independent of the team but wanted to be kept abreast of the planned activities and associated timelines and would interact with the team as needed; hence, they would be engaged but not necessarily directly as a team member.

Prior to the September 10th ANS/NRC meeting, an ANS/NEI June 23, 2020 workshop was held which was well attended by industry, received excellent feedback, and noted the need to capitalize on the workshop's momentum. As an current update, ANS SB Chair Eggett has already reached out to NRC (noted above), DOE, NEI, and ASME (all with scheduled meetings) to discuss what the next actions should be including further discussions with NEI on moving forward with the prioritized list of C&S identified in NEI's Assessment Report (NEI 19-03) and a parallel effort in the creation of an industry led team of technical experts to determine what the next appropriate C&S actions would be and where and how to direct the work. This team would direct writing proposals for funding of those standards deemed to be of highest priority. Nakoski proposed that funding should come from DOE that would support the prioritized work.

Concept of Industry Steering Committee

The focus would be primarily on the prioritized needs of advanced reactors, but non-reactor nuclear facilities, current LWRs, and any needs for other current operating or planned facilities would be evaluated on a as needed priority basis.

The central led industry steering committee would develop prioritized actions, approve these action(s), capture these actions in a proposal(s), and send them to DOE recommending funds be allocated for these "project(s)." Nakoski also proposed that the committee should consider using a contractor that would facilitate the team's needs both administrative, technical, and otherwise. The contractor would remain as the facilitator for whatever term the team agreed to and negotiated with that organization. One of the contractor's primary responsibilities would be

to develop proposals for the committee based on the committee's consensus of identified priorities. All proposals would be reviewed by the committee before being submitted to DOE for consideration of approval. The objective is to obtain the needed financial support to support development of prioritized, near-term advanced reactor codes and standards. This recommended approach needs the industry support of DOE, NEI, all SDOs, reactor vendors, and other group members.

In addition, the Industry Steering Committee would:

- Determine the membership (e.g., SDOs (ANS, ASME, IEEE), Industry Users (e.g., Babcock & Wilcox, Holtec, and NuScale), NEI, DOE, National Labs, Consultant(s)

- Determine if a "core group" is needed from the total membership to drive near-term prioritized, needed, and approved projects. Would the "core group" need to be from advanced reactor developers complimented by individuals that are familiar with existing standards?

- Set goals, objectives, responsibilities, and the reporting structure of committee

- Establish the Process

  - Would suggest standards requiring prioritization
  - Primary focus would be advanced reactor standards, other areas may be considered
  - Group would consider and determine lead SDO/Co-Lead SDOs
  - NEI would be looked to focus on standard development rather than a separate NEI document
  - Standards would be expedited by using a paid consultant and production of initial trial use standard.
  - Majority of work to be done online, face-to-face steering committee meetings initially quarterly, then as needed

Key Benefits of Industry Steering Committee to Industry

- Improve identification of needed standards for advanced reactors
- Assign topics which are better covered by standards than other industry documents
- Coordination of SDO activities
- Expedite standards development (funding and Trial Use)

ATTACHMENT 11

Should Other SDOs and Industry Groups (INPO/NEI) be Members of ANS SB Advisory Board??

ADVANTAGES	DISADVANTAGES	Suggested Alternative
Bring potential access to large number of industry personnel	In the past, these industry groups ~~H~~have been hesitant to forward ANS items to their ~~members~~ members. If they did most ~~recipients~~ information would not be relevant to most members. There is less interest in replying to third party	
Have a unique perspective on the interface with their standards	Some have continuously discouraged the use of ANS standard (e.g. NEI, GE) Other SDOs are not very interested in commenting on ANS standards or helping ANS.	The best we can do here is by using interested liaison members of ANS committees.
Have extensive mail lists.	Have been unwilling to share their email lists or forward ANS emails to their lists.	
Bring a wide range of expertise	In general, ~~H~~have not been interested in providing meaningful comments ad hoc. Focused on their own activities	Better use by liaisons
Have direct interest in the impact of standards on their organizations.	Difficult to get ~~their time.~~tem to commit employee time to ANS or other SDO activities.	
Can include participants from a wide range of organizations: plant operator, reactor vendors, fuel suppliers, waste management companies, decommissioning contractors, DOE, NRC, Owners Groups, and National Labs.	Only those with direct impacts should comment. We may need to provide additional information in the PINs to make intent clear.	This should be a goal of the External Communications Task Group, not the standards board.
Represent actual users		Again, better served by liaisons
Bring a wide range of expertise		Again, better served by liaisons

ATTACHMENT 12

Fee Based ANS Standards Training Program Proposal Status Update
Updated July 6, 2017

Concept: The Standards Committee would offer web-based training on specific standards shortly after issuance, where it was anticipated that sufficient interest exists for training in the specific standard(s). A reasonable fee (e.g. $50-100) would be charged for each attendee per training course. The instructor would be the working group chairperson or a designee, having sufficient expertise in the contents and background of the standard. This instructor may be paid a reasonable fee (e.g. $300-600) depending on the volume of the material that has to be covered. Group rates or discounts may be offered for organizations with more than five attendees. Such fee based training would not be offered unless a minimum of 20 attendees is expected.

Status: This concept was presented at the June 2016 ANS Standards Board meeting and the members agreed that further definition is justified. Accordingly, an evaluation approach is to be prepared with the goal of determining if such a training program could be implemented by the American Nuclear Society (ANS), and whether it would be profitable. The Marketing Department of ANS independently identified fee based training as a potential value that ANS could offer and had started evaluating many of the issues that are identified below. They conducted a survey of ANS members to obtain feedback on the level of interest and preferred program characteristics. The survey feedback indicated that standards were the most preferred area of training and webcasts were the preferred medium. A update was be provided to the Standards Board at the November 2016 meeting. The plan is to run a trial program using two standards: ANS-3.5 and ANS-2.8 which are nearing issuance. From these trials , we will assess the cost benefit of expanding this program to other standards The ANS Board approved this approach at its November 2016 meeting.

Evaluation Approach: The first step in the evaluation approach is to define the potential roadblocks that may exist to the implementation of the proposed fee-based ANS Standards Training Program. Each potential roadblock is to be evaluated, including discussions with the ANS staff group with direct knowledge in that area. The results of this evaluation would be used to determine if such a program could be implemented by ANS, to identify areas of difficulty or concern, and propose solutions to such concerns, if any.

Evaluation of Potential Roadblocks:
The following nine (9) potential roadblocks have been identified for further evaluation:

1. ANS Payment to Instructors: ANS is able to make payments to instructors. Amounts under $600 do not require 1099s. If an instructor is restricted from receiving payments from ANS, a credit can be posted to the instructors ANS account which would allow him to offset that amount against ANS publications, purchases at the ANS store or dues. Any amounts above $600 would require a 1099.

   This area of evaluation was performed by the ANS Marketing Department

2. Attendee Registration and Payment: There are several systems that can be used for registration and fee collection (ANS Meeting system, new ANS back office system and WEBEX. ANS is evaluating which of these systems would be best to use as well as who would set-up and manage the registration process and payment collection for each standards course? A fee structure for multiple attendees on a single computer needs to be established. It is anticipated that professional development credits and a certification will be offered. The registration form would collect data on how people heard about the session to determining the effectiveness of our advertising.

   This area of evaluation is being performed by the ANS Marketing Department

3. Liability Potential/Ownership: A disclaimer would be required on the registration agreement and presentation material that limits any potential liability to the instructor and ANS. The instructor and ANS would execute an agreement which would detail the ownership rights and liability. An agreement which is too onerous for potential instructors would be detrimental to this program. Thus it has been requested that a draft agreement be prepared as soon as possible by ANS for review by the SB. (This should not be out of the ordinary as the situation is similar to anyone making a presentation or providing training an ANS meeting)

   This area of evaluation is being performed by the ANS Marketing Department

4. Speaking contracts: This will be covered under items 1 to 3 above.
5. Disclaimers: ANS will develop appropriate disclaimer language?

   This area of evaluation is being performed by the ANS Marketing Department
6. Instructor Availability: ANS SB has determined that qualified instructors are available for the selected standards.
7. Attendee Interest: Is there sufficient interest in attendance of such sessions to make this program worthwhile? How can this be predetermined? How should this be advertised? How and when should prospective attendees be targeted?

   The ANS survey demonstrated that there is general interest in standards training. An assessment will be made of each issued standard based on input from the working group chair, the consensus committee. If it is expected that there would be sufficient interest, ANS standards training coordinator will work with ANS Marketing Department to advertise the respective training session. If the required level of interest is obtained the session will be conducted.
8. Webcast Programs: WEBEX is currently the preferred program. It has the capability to show both the instructor as well as the slide presentation.
9. Ownership: Any disclaimers and instructor agreements should state that the training materials are the property of ANS.

ATTACHMENT 13

RP3C Report to Standards Board

Virtual Meeting

November 17, 2020

RP3C Report to SB

- RP3C RIPB Guidance Document
  - Clarified intent and purpose to aid WGs
  - Not intended to be a handbook
  - References provided respond to technical comments and questions
- SMART Matrix Report
  - RP3C accepts modified set of activities
  - RP3C looking for SB direction on Guidance Document
- Discussion of ANS-30.1
  - RP3C supports current course of action
- RP3C RIPB Community of Practice
  - Question was raised whether future CoP sessions should focus on two subject areas
  - Responses indicated lack of support for systems engineering practices being a focus
  - Responses appeared favorable to making harmonization of standards to be a focus
- CC Chairs Report on RIPB
  - No CC Chairs provided inputs
- Expand RIPB Methods
  - NRC initiative on harmonization of standards under unified RIPB principles offers opportunities
  - Recognition of key RP3C RIPB GD reference in 10 CFR Part 53 rulemaking offers opportunities
- Interactions with WG
  - Discussion on ANS-2.26 revealed how RP3C RIPB GD would address negative comments on GD

ATTACHMENT 14

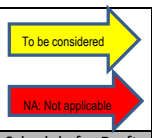
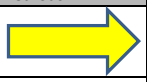
Tracking of RP3C Recommendations to Incorporate RIPB Methods (Updated 10/25/20)

RP3C Response to SB Action Item 11/2018-14

					To be considered NA: Not applicable	In development		
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		**RIPB incorporated in standard approved 12/17/2019.**			
ESCC (WGCs: D. Clark)	ANS-	2	26		PINS submitted to ANSI 10/1/19 and project initiated.		Approach addressed in 11-2018 RP3C Meeting	Revision will build on RIPB methods already in standard.
ESCC (WGC: K. Hanson)	ANS-	2	27		**RIPB incorporated in standard approved 4/16/2019.**			
FWDCC (WGC: M. Sanders)	ANS-	57	1			Maintenance to be considered by 6/16/2024	LMP LBE approach may be applicable	Will be addressed when next revision initiated.
FWDCC (WGC: R. Browder)	ANS-	57	3			Maintenance to be considered by 2/27/2023	LMP guidance document may be applicable	Will be addressed when next revision initiated.
LLWRCC (WGC: J. Sickle)	ANS-	3	1			Believed to be NA for RIPB Maintenance to be considered by 2/4/2025	RP3C recommends PB approach with fitness-for-service considerations	Will be addressed when next revision initiated.
LLWRCC (WGC: M. Smith)	ANS-	3	2			Maintenance to be considered by 4/4/2022	RP3C considers this a high priority standard for RIPB	Will be addressed when next revision initiated.
LLWRCC (WGC. OPEN)	ANS-	3	13		Project being re-evaluated; WG being reformed		RP3C considers this a high priority for advanced non-LWRs	Project will incorporated RIPB.
LLWRCC (WGC: K. Geelhood)	ANS-	18	1			Limited revision approved 7/24/20 to issue corrections. Maintenance to be considered by 7/24/25.	LMP work in context of DG-1353 should be considered	Will be addressed when next revision initiated.
LLWRCC (WGC. E. Johnson-Turnipseed)	ANS-	51	10			Revision just approved 10/23/20 was in late stage of development before RP3C evaluation. Maintenance required by 10/23/25.	RP3C has reported interactions with WG.	Johnson-Turnipseed and Stamm have action item to consider initiating RIPB revision now or waiting until next revision initiated.
LLWRCC (WGC: J. Glover)	ANS-	56	1			Inactive project in consideration.	Work done with LMP on H2 control is relevant	LLWRCC to discuss proposed project at 11/18/20 meeting.
LLWRCC (WGC: J. Glover)	ANS-	56	8			NA - A revision was initiated prior to RP3C's evaluation. ANSI approval of the revision is currently pending. The next maintenance consideration is in 11/2025.	Part 50 App J is PB	Will be addressed when next revision initiated.
LLWRCC (WGC: H. Liao)	ANS-	58	8		**RIPB incorporated in standard approved 8/8/2019.**			
LLWRCC (WGC:OPEN)	ANS-	58	9			Decision and schedule pending new chair/formation of WG.	SFC may be one of the high priority standards for LMP guidance application	Will be addressed when next revision initiated.
LLWRCC (WGC: M. Linn)	ANS-	58	14			Maintenance to be considered by 1/17/2022	LMP guidance definitely applicable	The current wording is sufficient to allow RI/ PB actions, but there may be opportunities to enhance .This assessment will be done when revision initiated.
LLWRCC (WGC: M. Dooley)	ANS-	59	51			WG currently inactive.	High likelihood of PB guidance being applicable	Will be addressed when next revision initiated.

Tracking of RP3C Recommendations to Incorporate RIPB Methods (Updated 10/25/20)

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	52			WG currently inactive.	High likelihood of PB guidance being applicable	Will be addressed when next revision initiated.	
NRNFCC (WGCs: T. Anselmi & C. McMullin)	ANS-	3	14		Draft issued for CC, RP3C, and SCoRA review.		RP3C working with CC Chair	Recognized during 5/21/19 call. WG response to RP3C review comments pending.	
NRNFCC (WGC: R. Eble)	ANS-	57	11		Draft issued for CC, RP3C, and SCoRA review.		RP3C is ready to help	Recognized during 5/21/19 call. WG response to RP3C review comments pending.	
NRNFCC (WGC: P. Rogerson)	ANS-	58	16			Reaffirmed 4/9/20. Maintenance due by 4/9/25l.	High likelihood of LMP guidance being applicable	Recognized during 5/21/19 call.	
RARCC (WGC: J. August)	ANS-	53	1			PINS in development; will work with RP3C.	RP3C working with WG Chair	Agreement	
RARCC (WGC: G. Flanagan)	ANS-	54	1		**RIPB incorporated in standard approved 3/23/2020.**				
RARCC (WGC: OPEN)	ANS-	54	6			NA - no plans to ressurect this inactive project	Needs more consideration	NA	

Schedule of ANS Standards in Development using RIPB Properties (November 2020)

ATTACHMENT 15

Standards Project	Draft App'd by WG	+4 months SubC or Preliminary Review/Comment Resolutions	+6 months 1st CC Ballot/Comment Resolutions (concurrent PR)	+4 months 2nd CC Ballot/Comment Resolutions (concurrent PR)	+2 weeks ANS Standards Board Certification	+2 Weeks ANSI Approval	~4 months Publication
ANS-2.22 (T. Jannik)/*ESSC (C. Mazzola) Environmental Radiological Monitoring at Operating Nuclear Facilities JCNRM Rep:	Sept 2021	Oct-Jan 2022	Feb-Jul 2022	Aug-Nov 2022	Dec 2022	Dec 2022	Apr 2023
ANS-2.21 (M. Kinley)/*ESCC (C. Mazzola) Criteria for Assessing Atmospheric Effects on the Ultimate Heat Sink JCNRM Rep:	Dec 2020	Jan - Apr 2021	May - Oct 2021	Nov - Feb 2022	Mar 2022	Mar 2022	Jul 2022
ANS-2.26 (D.Clark) /*ESCC (C. Mazzola) Categorization of Nuclear Facility SSCs for Seismic Design JCNRM Rep:	PINS submitted to ANSI 10/1/19. Kickoff meeting held 10/27/20. Schedule TBD.						
ANS-2.34 (S. McDuffie)/*ESCC (C. Mazzola) Characterization and Probabilistic Analysis of Volcanic Hazards RP3C Rep: N. Chokshi / JCNRM Rep:	Mar 2021	Apr - Jul 2021	Aug - Jan 2022	Feb - May 2022	Jun 2022	Jun 2022	Oct 2022
ANS-3.13 (J. August) / *LLWRCC (M. French) Nuclear Facility Reliability Assurance Program (RAP) Development JCNRM Rep:	Path forward to be discussed at 11/17/20 LLWRCC meeting.Committee being reconstituted.						
ANS-3.14 (T. Anselmi)/*NRNFCC (C. Martin) Process for Aging Management and Life Extension of NRNF JCNRM Rep: J. O'Brien			Jul 2019 - Oct 2020	Nov 2020 - Feb 2021	Mar 2021	Mar 2021	Jul 2021
	Draft issued to SCoRA & RP3C 7/19/19 in parallel to NRNFCC ballot. Comments taking longer than anticipated to address.						
ANS-3.15 (M. Muhlheim/*LLWRCC (M. French) Risk-Informing Critical Digital Assets (CDAs) for Nuclear Power Plant Systems JCNRM Rep: R. Budnitz & G. Hudson	Schedule TBD						
ANS-15.22 (B. Meffert)/*RARCC (G. Flanagan) Classification of Structures, Systems and Components for Research Reactors JCNRM Rep:	Dec 2021	Jan - Apr 2022	May - Oct 2022	Nov - Feb 2023	Mar 2023	Mar 2023	Jul 2023
ANS-20.2 (D. Holcomb / *RARCC (G. Flanagan) Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten Salt-Reactor Nuclear Power Plants JCNRM Rep:	Jul 2021	Aug - Nov 2021	Dec - May 2022	Jun - Sept 2022	Oct 2022	Oct2022	Feb 2023
ANS-30.1 (M. Linn) / *RARCC (G. Flanagan) Risk-Informed & Performance-Based NPP Design Process JCNRM Rep: D. Johnson/K. Fleming/A. Maioli	Mar 2020	Mar 2020-? RARCC preliminary review ballot closed 4/17/20. Schedule to be determined once comments addressed. Draft not sent to RP3C or SCoRA at request of RARCC Chair.					
ANS-30.2 (K. Welter) / *RARCC (G. Flanagan) Categorization Classification of SSCs for New Nuclear Power Plants	Apr 2021	May - Aug 2021	Sep - Feb 2021	Mar - Jun 2021	Jul 2021	Jul 2021	Nov 2021

Schedule of ANS Standards in Development using RIPB Properties (November 2020)

Standards Project	Draft App'd by WG	+4 months SubC or Preliminary Review/Comment Resolutions	+6 months 1st CC Ballot/Comment Resolutions (concurrent PR)	+4 months 2nd CC Ballot/Comment Resolutions (concurrent PR)	+2 weeks ANS Standards Board Certification	+2 Weeks ANSI Approval	~4 months Publication
JCNRM Rep: R. Grantom							
ANS-30.3 (K. Welter)/*LLWRCC (M. French)	Jul 2019	Aug 2019 -Nov 2020	Dec - May 2021	Jun - Sept 2021	Oct 2021	Oct2021	Feb 2022
Advanced LWR RIPB Design Criteria and Methods		Draft issued to SCoRA, RP3C, RARCC 8/15/19. Comments taking longer than anticipated to address. Schedule TBD.					
JCNRM Rep:							
ANS-56.2 (E. Johnson)/*LLWRCC (M. French)	Nov 2021	Dec-Mar 2022	Apr-Sept 2022	Oct-Jan 2023	Feb 2023	Feb 2023	Jun 2023
Containment Isolation Provisions for Fluid Systems After a LOCA							
JCNRM Rep:							
ANS-57.2 (R. Browder) / *FWDCC (J. Lucchini)	Mar 2021	Apr - Jul 2021	Aug - Jan 2022	Feb - May 2022	Jun 2022	Jun 2022	Oct 2022
Design Requirements for LWR Spent Fuel Storage Facilities at NPPs							
JCNRM Rep:							
ANS-57.9 (M. Sanders)/*FWDCC (J. Lucchini)	Nov 2023	Dec-Mar 2024	Apr-Sept 2024	Oct-Jan 2025	Feb 2025	Feb 2025	Jun 2025
Design Criteria for an Independent Spent Fuel Storage Installation (Dry Storage Type)							
JCNRM Rep:							
ANS-57.11 (OPEN) / *NRNFCC (C. Martin)							
ISAs for Nonreactor Nuclear Facilities		Closed 6/2/19 with significant comments; resolutions require additional time. Schedule TBD.					
JCNRM Rep:		Draft provided to RP3C, SCoRA, and NCSCC on 4/3/19.					

*= ANS responsible consensus committee

ANS Contacts: Prasad Kadambi, RP3C Chair: Phone: 301-236-4162 -- Email: praskadambi@verizon.net

ESCC = Environmental & Siting Consensus Committee
FWDCC = Fuel, Waste, & Decommissioning Consensus Committee
LLWRCC = Large Light Water Reactor Consensus Committee
NRNFCC = Nonreactor Nuclear Facilities Consensus Committee
RARCC = Research and Advanced Reactors Consensus Committee

ATTACHMENT 16

ESCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

PINS in Development (2)

- ANS-2.18, "Standards for Evaluating Radionuclide Transport in Surface Water for Power Sites" (new standard)
- ANS-3.16, "Meteorological Aspects of Wildland Fire Response" (new standard)

PINS in Approval/Resolving Comments (2)

- ANS-2.32, "Guidance on the Selection and Evaluation of Remediation Methods for Subsurface Contamination" (new standard)
- ANS-3.11, "Determining Meteorological Information at Nuclear Facilities" (revision of ANSI/ANS-3.11-2015; R2020)

Standards in Development – Approved PINS (5)

-
- 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-2.26, "Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design" (revision of ANSI/ANS-2.26-2004; R2017)
- 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)

Standards at Ballot/Resolving Comments (0)

Standards Recently Approved/Published (4)

- ANSI/ANS-2.2-2016 (R2020), "Earthquake Instrumentation Criteria for Nuclear Power Plants" (reaffirmation of ANSI/ANS-2.2-2016)—approval pending
- ANSI/ANS-2.23-2016 (R2020), "Nuclear Power Plant Response to an Earthquake" (reaffirmation of ANSI/ANS-2.23-2016)—approval pending
- ANSI/ANS-2.27-2020, "Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments" [revision of ANSI/ANS 2.27-2008 (R2016)]—approved 4/16/2020
- ANSI/ANS-2.29-2020, "Probabilistic Seismic Hazard Analysis" [revision of ANSI/ANS-2.29-2008 (R2016)]—approved 4/16/2020

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

Responses to Inquiries (0)

Membership Changes

R. Joe Hunt retired from Consolidated Nuclear Security (CNS) and all standards committees. Hunt shared a vote with Thomas Bellinger. Bellinger now carries the one vote for CNS.

Report continued on the next page

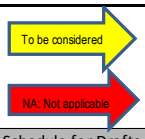
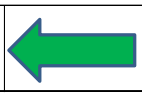
Volunteer Staffing Needs

Staffing Need (member, chair, etc.) # of positions	Standard #	Date Need Identified (Estimated)	Priority (H, M or L)*	Date Need Filled	Source**	Date-Actions Taken to Fill Need (Estimated)
Chair+Members	ANS-2.3		H		a, d, e	various 2018- current
Chair+Members	ANS-2.13		L		d, e	various 2015- current
Members	ANS-2.18	pre-dates ESCC	M-H		a, d, c, e	various 2015- current
Members	ANS-2.32		M-H	8 members as of 10/2020	a, d, c e	various 2015- current
Members	ANS-3.16		M		a, d, e	various 2015- current
SubC Vice Chairs (2)	• Atmospheric • General/ Monitoring	2014	L		d, e	2014 - current
SubC Vice Chairs (2)	• Hydrogeological • Environmental Impact	2018	L		d, e	various 2018

* High (H), medium (M), or low (L) 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

Tracking of RP3C Recommendations to Incorporate RIPB Methods

NOTE: Projects listed below are limited to those on RP3C's initial list of 23 standards recommended to benefit from RIPB methods. The list is not inclusive of all ESCC standards in development using RIPB methods.

					Estimated Schedule for Drafts in Development Using RIPB Methods	Estimated Consideration Date to Incorporate RIPB Methods	RP3C Proposed Approach	CC Response to Proposed Approach
								
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		**RIPB incorporated in standard approved 12/17/2019.**			
ESCC (WGCs: D. Clark)	ANS-	2	26		PINS submitted to ANSI 10/1/19 and project initiated.		Approach addressed in 11-2018 RP3C Meeting	Revision will build on RIPB methods already in standard.
ESCC (WGC: K. Hanson)	ANS-	2	27		**RIPB incorporated in standard approved 4/16/2019.**			

ATTACHMENT 17

FWDCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

PINS in Development (1)

- ANS-57.1, "Design Requirements for Light Water Reactor Fuel Handling Systems" (revision of ANSI/ANS-57.1-1992; R2019)

PINS in Approval/Comment Resolution (0)

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-57.9, "Design Criteria for an Independent Spent Fuel Storage Installation (Dry Type)" (reinvigoration of historical standard ANS-57.9-1992; R2000) (SB comments require resolution)

Standards at Ballot/Resolving Comments (0)

Standards Recently Approved/Published (1)

- ANSI/ANS-57.8-2020, Fuel Assembly Identification (revision of ANSI/ANS-57.8-1995; R2017)

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

Responses to Inquiries Issued (0)

Membership Changes

Jean Francois Lucchini replaced David Hillyer as FWDCC Chair. Maryanne Stasko replaced Jean Francois Lucchini as FWDCC Vice Chair.

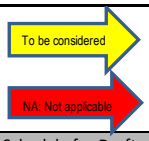
Volunteer Staffing Needs

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
Members	ANS-55.1	pre-dates FWDCC	M		d, e, f	various 2014 - current
Members	ANS-55.4	pre-dates FWDCC	M		d, e, f	various 2014 - current
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
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

Tracking of RP3C Recommendations to Incorporate RIPB Methods

										
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		
FWDCC (WGC: M. Sanders)	ANS-	57	1			Maintenance to be considered by 6/16/2024	LMP LBE approach may be applicable	Will be addressed when next revision initiated.		
FWDCC (WGC: R. Browder)	ANS-	57	3			Maintenance to be considered by 2/27/2023	LMP guidance document may be applicable	Will be addressed when next revision initiated.		

ATTACHMENT 18

JCNRM Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020

JCNRM relationship to its two sponsoring societies (ANS and ASME)

The activities of the Joint Committee on Nuclear Risk Management (the JCNRM) are overseen by 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 two societies share in the management of the JCNRM, with ANS responsible for the administrative work of editing and publishing all new JCNRM standards, and ASME responsible for the administrative 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. 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.

JCNRM Leadership

The JCNRM is managed by 2 co-chairs and 2 vice co-chairs, representing each society. Robert Budnitz and Rick Grantom serve as the ANS and ASME co-chairs, respectively. Dennis Henneke and Pamela Nelson serve as the ANS and ASME co-vice chairs, respectively. The chair and vice chair terms expire at the end of June 2021. A succession plan is under active consideration.

JCNRM Meetings

Twice annually, in the spring and fall, the JCNRM holds a 4-day meeting that includes meetings of all of its subsidiary subcommittees and working groups, as well as of the main committee. The most recent meeting was conducted virtually on Monday through Thursday, September 21-24, 2020, with a few subsidiary meetings held the week before. The meetings involved 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 had technical discussions on several important topics related to the standards-development work that it oversees, and also addressed administrative issues such as membership, awards, open ballots, and proposals for future work.

The next 4-day semi-annual JCNRM meeting is scheduled for February 8-11, 2021, likely using a virtual format. In these large semi-annual meetings, updates are 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 (R2019), has been under way since the release of Addenda B in 2013. A reaffirmation of the standard was approved on November 15, 2019, to keep the standard current until 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. The next edition will be redesignated RA-S-1.1.

A ballot was issued December 16, 2019, and closed February 18, 2020, with 1553 comments (1346 technical, 207 editorial). Comment resolution has involved 8 different working groups assigned to specific parts of the standard, coordinated by the Subcommittee on Standards Maintenance. Resolutions were completed and a revised draft was issued for a recirculation ballot on August 14, 2020. The recirculation ballot closed September 11, 2020 with just over 150 comments. Ten members submitted negative votes. The working groups are once again meeting nearly weekly to address comments. Several members have indicated that they will change their vote to approved which should be sufficient to declare consensus following another recirculation ballot anticipated in December. The expectation is that this next recirculation ballot will result in sufficient approval for consensus to be declared. Approval of the standard and publication are expected by mid 2021.

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" has already been 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 later identified in the Case, and a correction was issued in June 2019.

New Standards in Development

There are 6 new PRA methodology standards and 1 guidance document in various stages of development. Note that the JCNRM has decided that each of its new standards should be released initially for Trial Use and Pilot Application – not for approval as an American National Standard by the American National Standards Institute (ANSI). The descriptions below describe the trial-use status of each standard and the guidance document now under development.

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

- The writing group is currently led by Jonathan Li, who took over in mid-2019 from Don Wakefield, who had led the group for over a decade.
- Because of insufficient industry experience and technical differences among several different approaches to the requirements, it took a very long time to complete the trial-use standard; the working group began its work in 1999.
- The trial-use version, 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-1.1 (the combined Level 1 Standard) or to issue it as a stand-alone 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.
- The trial-use version, 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 period 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 the trial-use standard is being revised.
- The revised draft was issued for ballot in late 2019 with the intent of seeking ANSI approval. The ballot closed 1/22/20 with over 600 comments and 11 negatives.
- The working group is currently almost done with the task of addressing comments with the intent of resolving the negatives.
- The draft is expected to be ready for ballot in early 2021.

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 trail-use version of this 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 Level 3 PRA Standard is being finalized for its readiness review. A Readiness Review Team has been assembled.
- The draft is expected to be ready for ballot in early 2021 with the intent of seeking ANSI approval once consensus is reached.

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 trail-use version 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.
- At the JCNRM meeting in September 2019, an NRC staff member told the committee that the staff was contemplating endorsing the old 2013 (trial-use) version of this standard in a new Regulatory Guide. The JCNRM decided that this was inappropriate, and unanimously passed a motion to send a letter to the NRC staff explaining that a better course is to wait until the new (late 2020-early 2021) version is out before contemplating endorsing it. That letter was issued on November 26, 2019. The NRC response letter dated March 13, 2020, stated that the NRC will postpone endorsement until the revision is issued.
- At the JCNRM meeting in September 2019, it was decided to complete this standard on an expedited schedule.
- A webinar was held March 23, 2020, in advance of the JCNRM ballot to familiarize members with the draft in an effort to reduce comments and expedite approval.
- The revised draft was issued for ballot March 24 with a close date of May 23, 2020.
- The working group addressed all comments with the final ballot tally unanimously in favor.
- The standard is currently in the middle of the required ANSI public review through December 15, 2020.
- Provided that no public review comments/objections are received, ANSI approval is expected in January 2021 with the standard published almost immediately thereafter.

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. Based on ballot comments, 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 into the draft related to the NRC's Advanced-LWR Interim Staff Guidance.
- Several ballots have been issued to the JCNRM to approve the definitions of "large release" and "large early release" prior to the draft of the full standard being issued for ballot. The current ballot on the definitions was issued October 22, with a due date of November 5, 2020.
- This standard will be issued initially as a stand-alone standard, and it will be issued for trial use. The intent is that it will later be incorporated into a revision of RA-S-1.1 as a chapter or an appendix.
- The plan is to move ahead with the revision of the existing draft to align with the "next edition."

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

- The working group, led by Ricky Summit with Karl Fleming as vice chair, has been 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 first working group meeting was held on September 24, 2019.
- The group is holding bi-weekly meetings. They have a draft of about half of the technical elements in Part 2. Part 1 will likely be the most difficult section to develop due to screening and risk metric issues.

- The MUPRA Standard will be issued as a stand-alone standard, and it will be issued initially for trial use. The intent is that it will later be incorporated into a revision of RA-S-1.1 as an appendix.

Guidance Document for Risk Informing Physical Security and Cyber Security Programs at Nuclear Facilities

The JCNRM is developing a guidance document for risk informing physical-security and cyber-security programs at nuclear facilities. The current technical basis underlying physical-security and cyber-security programs at nuclear facilities does not take full advantage of the mature, approved analysis methods routinely used in PRA-based analysis of the safety risks at those facilities. This project's objective is to remedy this by providing guidance on how to use such analysis methods in facilitating risk informed decision making to understand security risks better and to counter those risks more effectively. Specifically, use of the proposed guidance document can increase the effectiveness and efficiency of the physical-security and cyber-security programs, by leveraging risk-informed methods and insights to enhance those programs, such that facility resources can be assigned consistent with public health and safety impact and done in a manner that is technically defensible and consistent with regulation. This guidance document is also expected to provide an important mechanism for obtaining operational and technical experience as part of the technical basis for the development, sometime in the future, of a potential JCNRM standard covering analyses of the type discussed. The group is actively working. A draft guidance document is close to being complete and is in internal review within the group.

Consistent with ANS procedures, a PINS was developed for this guidance document and approved by the JCNRM and the ANS Standards Board.

Standards Inquiries and Delinquent Standards

The JCNRM does not have any delinquent standards in need of maintenance.

An inquiry on ASME/ANS RA-S-2008/Sb-2013 was received in October 2020. A response has been drafted and is in the approval process.

Future Plans

The JCNRM's Executive Committee has been meeting bi-weekly for several years 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, and to oversee the work of the 150-plus volunteers organized into the three subcommittees and 16 working groups, with an eye on planning for up to about two years out. A current planning action is considering a reorganization of the JCNRM's subcommittee structure as standards under the Subcommittee on Standards Development are approved by ANSI and move to the maintenance phase. Eight meetings have been held to discuss options for the restructuring. An option expanding the JCNRM from 3 to 4 subcommittees is being explored by developing charters to define roles and responsibilities. The 9th meeting is scheduled for the end of November to focus on the draft charters.

The most important JCNRM effort now is to complete the next version of the main PRA Standard ASME/ANS RA-S (see discussion above.) The other major JCNRM task now is to gain ANSI approval and publish the Non-LWR PRA Standard in early January and to complete and issue the ALWR PRA Standard and the Level 2 PRA Standard next year. All of these are major efforts.

Another important task 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. The Koreans and Canadians have also inquired about the possibility, although their inquiries are 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 JCNRM, to cover travel costs of participants who have no other financial support, and also to cover a few other selected administrative and meeting expenses. The latest of these was formally awarded in February 2020 and allows funds to be used through February 2025.

ATTACHMENT 19

LLWRCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

PINS in Development (2)

- 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 (0)

Standards in Development – Approved PINS (7)

- 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-3.15, "Risk-Informing Critical Digital Assets (CDAs) for Nuclear Power Plant Systems" (proposed new standard)
- ANS-30.3, "Advanced Light-Water Reactor Risk-Informed Performance-Based Design Criteria and Methods" (new standard)
- ANS-56.2, "Containment Isolation Provisions for Fluid Systems After a LOCA" (new standard, historical revision of ANSI/ANS-56.2-1984; W1999)

Standards at Ballot/Resolving Comments (1)

- ANS-56.8-202x, "Containment Leakage Testing Requirements" (revision of ANSI/ANS-56.8-2002; R2016)—pending determination of substantive changes/approval

Standards Recently Approved/Published (6)

- ANSI/ANS-3.1-2014 (R2020), "Selection, Qualification, and Training of Personnel for Nuclear Power Plants" (reaffirmation of ANSI/ANS-3.1-2014)
- ANSI/ANS-18.1-2020, "Radioactive Source Term for Normal Operation of Light Water Reactors" (revision of ANSI/ANS-18.1-2016)
- ANSI/ANS-51.10-2020, "Auxiliary Feedwater System for Pressurized Water Reactors" (revision of ANSI/ANS-51.10-1991; R2018)
- ANSI/ANS-58.9-2002 (R2020), "Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems" (reaffirmation of ANSI/ANS-58.9-2002; R2015)
- ANSI/ANS-59.51-1997 (R2020), "Fuel Oil Systems for Safety-Related Emergency Diesel Generators" (reaffirmation of ANSI/ANS-59.51-1997; R2015)
- ANSI/ANS-59.52-1998 (R2020), "Lubricating Oil Systems for Safety Related-Emergency Diesel Generators" (reaffirmation of ANSI/ANS-59.52-1998; R2015)

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

Responses to Inquiries in Development/Approval (0)

Membership Changes

Michelle French, WECTEC, was confirmed as the LLWRCC Chair. Mark Linn, Oak Ridge National Laboratory, was confirmed as the LLWRCC Vice Chair taking over for Bill Reuland. Bill Reuland remains a member of the consensus committee. Robert Burg was confirmed as chair of the LWR & Reactor Auxiliary Systems Designs Subcommittee. Mark Colby resigned from standards committee activities. David Desaulniers was nominated by the NRC to the LLWRCC; committee concurrence pending.

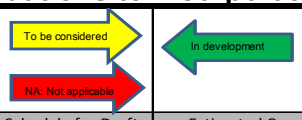
Volunteer Staffing Needs

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	H		d, e, f	various 2014-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					
Members	ANS-60.1	2016	M		d, e	various 2016-current
Vice Chair	LWR & Reactor Auxiliary Systems Designs SubC	2018-VC	H		d, e	April 2018-current
Chair/Vice Chair	Power Generation & Plant Support Systems SubC	2017-Chair 2020-VC	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

Tracking of RP3C Recommendations to Incorporate RIPB Methods



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: J. Sickle)	ANS-	3	1			Believed to be NA for RIPB Maintenance to be considered by 2/4/2025	RP3C recommends PB approach with fitness-for-service considerations	Will be addressed when next revision initiated.
LLWRCC (WGC: M. Smith)	ANS-	3	2			Maintenance to be considered by 4/4/2022	RP3C considers this a high priority standard for RIPB	Will be addressed when next revision initiated.
LLWRCC (WGC. OPEN)	ANS-	3	13		Project being re-evaluated; WG being reformed		RP3C considers this a high priority for advanced non-LWRs	Project will incorporated RIPB.
LLWRCC (WGC: K. Geelhood)	ANS-	18	1			Limited revision approved 7/24/20 to issue corrections. Maintenance to be considered by 7/24/25.	LMP work in context of DG-1353 should be considered	Will be addressed when next revision initiated.
LLWRCC (WGC. E. Johnson-Turnipseed)	ANS-	51	10			Revision just approved 10/23/20 was in late stage of development before RP3C evaluation. Maintenance required by 10/23/25.	RP3C has reported interactions with WG.	Johnson-Turnipseed and Stamm have action item to consider initiating RIPB revision now or waiting until next revision initiated.
LLWRCC (WGC: J. Glover)	ANS-	56	1			Inactive project in consideration.	Work done with LMP on H2 control is relevant	LLWRCC to discuss proposed project at 11/18/20 meeting.
LLWRCC (WGC: J. Glover)	ANS-	56	8			NA - A revision was initiated prior to RP3C's evaluation. ANSI approval of the revision is currently pending. The next maintenance consideration is in 11/2025.	Part 50 App J is PB	Will be addressed when next revision initiated.
LLWRCC (WGC: H. Liao)	ANS-	58	8		**RIPB incorporated in standard approved 8/8/2019.**			
LLWRCC (WGC:OPEN)	ANS-	58	9			Decision and schedule pending new chair/formation of WG.	SFC may be one of the high priority standards for LMP guidance application	Will be addressed when next revision initiated.
LLWRCC (WGC: M. Linn)	ANS-	58	14			Maintenance to be considered by 1/17/2022	LMP guidance definitely applicable	The current wording is sufficient to allow RI/ PB actions, but there may be opportunities to enhance .This assessment will be done when revision initiated.
LLWRCC (WGC: M. Dooley)	ANS-	59	51			WG currently inactive.	High likelihood of PB guidance being applicable	Will be addressed when next revision initiated.
LLWRCC (WGC: M. Dooley)	ANS-	59	52			WG currently inactive.	High likelihood of PB guidance being applicable	Will be addressed when next revision initiated.

ATTACHMENT 20

NRNFCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

PINS in Development/Approval (0)

Standards at Ballot/Resolving Comments (2)

- ANS-3.14-202x, "Process for Aging Management and Life Extension of Nonreactor Nuclear Facilities" (new standard)
- ANS-57.11-202x, "Integrated Safety Assessments for Nonreactor Nuclear Facilities" (new standard)

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

Responses to Inquiries (0)

Standards Recently Approved/Published (1)

- ANSI/ANS-58.16-2014 (R2020), "Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities" (reaffirmation of ANSI/ANS-58.16-2014)

Membership Changes

Charles Martin has been confirmed as NRNFCC Chair. Andrew De La Paz has been confirmed as NRNFCC Vice Chair. Margaret Kotzalas, NRC, resigned from all standards committees. NRC has nominated Donnie Harrison as her replacement; appointment/approval pending.

Volunteer Staffing Needs (0)

The NRNFCC currently has no staffing needs. If a decision is made that a revision of ANSI/ANS-58.16-2014 (R2020) should be initiated, working group members will be recruited.

Tracking of RP3C Recommendations to Incorporate RIPB Methods

					To be considered / NA: Not applicable	In development		
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
NRNFCC (WGCs: T. Anselmi & C. McMullin)	ANS-	3	14		Draft issued for CC, RP3C, and SCoRA review.	←	RP3C working with CC Chair	Recognized during 5/21/19 call. WG response to RP3C review comments pending.
NRNFCC (WGC: R. Eble)	ANS-	57	11		Draft issued for CC, RP3C, and SCoRA review.	←	RP3C is ready to help	Recognized during 5/21/19 call. WG response to RP3C review comments pending.
NRNFCC (WGC: P. Rogerson)	ANS-	58	16		→	Reaffirmed 4/9/20. Maintenance due by 4/9/25I.	High likelihood of LMP guidance being applicable	Recognized during 5/21/19 call.

ATTACHMENT 21

NCSCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

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; R2020)
- ANS-8.17, "Criticality Safety Criteria for the Handling, Storage, and Transportation of LWR Fuel Outside Reactors" (revision of ANSI/ANS-8.17-2004; R2019)
- ANS-8.19, "Administrative Practice for Nuclear Criticality Safety" (revision of ANSI/ANS-8.19-2014; R2019)

PINS in Approval (0)

Standards in Development – Approved PINS (8)

- ANS-8.1, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors" (revision of ANSI/ANS-8.1-2014; R2018)
- 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; R2020)
- ANS-8.22, "Nuclear Criticality Safety Based on Limiting and Controlling Moderators" (revision of ANSI/ANS-8.22-1997; R2016)
- 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 (1)

- ANS-8.21-202x, "Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors" (revision of ANSI/ANS-8.21-1995; R2019) (NOTE: The ballot was issued in 2017.)

Standards Recently Approved/Published (3)

- ANSI/ANS-8.10-2015 (R2020), Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement (reaffirmation of ANSI/ANS-8.10-2015)
- ANSI/ANS-8.20-1991 (R2020), Nuclear Criticality Safety Training (reaffirmation of ANSI/ANS-8.20-1991; R2020)
- ANSI/ANS-8.27-2015 (R2020), Burnup Credit for LWR Fuel (reaffirmation of ANSI/ANS-8.27-2015)

Delinquent Standards – 5+ Years Since ANSI Approval (0)

Responses to Inquiries in Development (0)

Membership Changes

Jeremy Munson was nominated by the NRC to the NCSCC. An appointment was extended, and he was confirmed by the committee on 11/2/20.

Volunteer Staffing Needs (0)

Tracking of RP3C Recommendations to Incorporate RIPB Methods

NA – No standards identified.

ATTACHMENT 22

RARCC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Annual Meeting

PINS in Development (0)

PINS in Approval (0)

Standards in Development – Approved PINS (4)

- ANS-1, "Conduct of Critical Experiments" (revision of ANSI/ANS-1-2000; R2012)
- 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-30.2, "Classification and Categorization of Structures, Systems, and Components for New Nuclear Power Plants" (new standard)

Standards Issued for Preliminary Review (1)

- ANS-30.1, "Integrating Risk and Performance Objectives into New Reactor Safety Designs" (new standard)

Standards at Ballot/Resolving Comments (0)

Standards Approved/Published (1)

- ANSI/ANS-15.16-2015 (R2020), Emergency Planning for Research Reactors (reaffirmation of ANSI/ANS-15.16-2015)
- ANSI/ANS-54.1-2020, "Nuclear Safety Criteria and Design Process for Sodium Fast Reactor Nuclear Power Plants" (new standard)

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

Responses to Inquiries (0)

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.

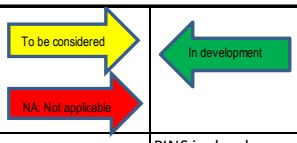
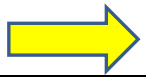
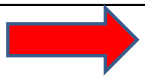
**a. Personal contact, b. standards manager (ANS staff), c. ANS SC referral, d. ANS publication, e. ANS website, f. Linkedin post, g. conference speakers and paper authors, h. internet search, i. other

Membership Changes

The RARCC remains in balance with the following membership changes:

- George Flanagan retired from Oak Ridge National Laboratory (ORNL) and was reclassified as an individual for balance of interest purposes. Mark Linn now is responsible for the ORNL vote.
- Jason Andrus was confirmed as a new RARCC member. Andrus will share a vote with Sean O'Kelly for Idaho National Laboratory. Andrus will be responsible for voting on advanced reactor projects; O'Kelly on research reactor projects.
- James August retired from Southern Nuclear and was reclassified as an individual. Amir Afzali now carries the vote for Southern Nuclear.
- William Kennedy was nominated by the NRC to replace Alexander Adams who retired. Kennedy's membership confirmation is pending.
- Steven Stamm was added to the committee as a nonvoting observer.

Tracking of RP3C Recommendations to Incorporate RIPB Methods

							
RARCC (WGC: J. August)	ANS-	53	1			PINS in development; will work with RP3C.	RP3C working with WG Chair	Agreement
RARCC (WGC: G. Flanagan)	ANS-	54	1		**RIPB incorporated in standard approved 3/23/2020.**			
RARCC (WGC: OPEN)	ANS-	54	6			NA - no plans to ressurect this inactive project	Needs more consideration	NA

ATTACHMENT 23

SRACC Chairman's Report to the ANS Standards Board

Tuesday, November 17, 2020 • ANS Winter Meeting

PINS in Development (1)

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

Standards in Development – Approved PINS (7)

- 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" (new standard, 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-19.3, "Steady-State Neutronics Methods for Power Reactor Analysis" (revision of ANSI/ANS-19.3-2011; R2017)
- ANS-19.3.4, "Determination of Thermal Energy Deposition Rates in Nuclear Reactors" (revision of ANS-19.3.4-2002; R2017)
- ANS-19.5, "Requirements for Reference Reactor Physics Measurements" (new standard, historical revision of ANSI/ANS-19.5-1995)
- ANS-19.9, "Delayed Neutron Parameters for Light Water Reactors" (new standard)

Standards at Ballot/Resolving Comments (2)

- ANS-6.3.1-1987 (R202x), "Program for Testing Radiation Shields in Light Water Reactors (LWR)" (reaffirmation of ANSI/ANS-6.3.1-1987; R2015)
- ANS-15.2-1999 (R202x), "Quality Control for Plate-Type Uranium-Aluminum Fuel Elements" (reaffirmation of ANSI/ANS-15.2-1999; R2016)

Standards Recently Approved/Published (5)

- ANSI/ANS-5.4-2011 (R2020), Method for Calculating the Fractional Release of Volatile Fission Products from Oxide Fuel (reaffirmation of ANSI/ANS-5.4-2011)
- ANSI/ANS-6.1.1-2020, "Neutron and Photon Fluence-to-Dose Conversion Coefficients" (new standard, reinvigoration of historical standard ANSI/ANS-6.1.1-1991)
- ANSI/ANS-6.3.1-1987 (R2020), "Program for Testing Radiation Shields in Light Water Reactors (LWR)" (reaffirmation of ANSI/ANS-6.3.1-1987; R2015)
- ANSI/ANS-6.6.1-2015 (R2020), Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants (reaffirmation of ANSI/ANS-6.6.1-2015)
- ANSI/ANS-10.8-2015 (R2020), "Non-Real Time, High-Integrity Software for the Nuclear Industry--User Requirements" (reaffirmation of ANSI/ANS-10.8-2015)

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

Responses to Inquiries in Development (0)

Membership Changes

Julie Jarvis changed employers from Bechtel to Defense Nuclear Facilities Safety Board. The SRACC remains in balance of interest compliance.

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
Chair	ANS-19.5	2018	M		a, d, e	various 2018-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

Tracking of RP3C Recommendations to Incorporate RIPB Methods

NA – No standards identified.

ATTACHMENT 24

ANS Standards Board Task Groups
(Revised 10/16/20)

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.

Donald Eggett, Chair*
George Flanagan
Prasad Kadambi
Carl Mazzola
Donald Spellman
Patricia Schroeder

NOTE: Current SB Chair = Policy TG Chair

External Communications Task Group ~~(Revised scope to be presented)~~

Scope: Improve ~~the links~~coordination between the ANS Standards Committee and standards 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 NESCC~~ ISO TC 85 National Technical Advisory Group (TC -85).

Donald Spellman, Chair*
Amir Afzali
Chip Martin

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 and representation from standards committees on technical divisions through a liaison relationship. 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.

Commented [DE1]: Are these intended to be "observers"? Be specific on the type of volunteers.

Bill Turkowski, Chair (SB)*

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* Chair (may be changed at the discretion of the task group)
** No CC chairs on the task groups other than by personal preference

ATTACHMENT 25

A3 RESPONSIBILITIES OF ANS STANDARDS COMMITTEE LIAISON PERSONNEL

1 BACKGROUND

The development of standards for the nuclear industry is facilitated though communications with other Standards Development Organizations (SDOs) and industry organizations. In many cases it is not possible to develop an effective standard whose scope is solely within the purview and interest of one society. In addition, the requirements of any one standard will often affect the criteria, and their interpretation, of several other standards. Furthermore, input and feedback from interfacing organizations is important to the development of a useful standard.

The purpose of this policy is to set forth guidance for selection and functioning of individuals to provide liaison between the ANS Standards Committee and other SDOs or industry organizations. It also addresses the qualifications of such individuals to ensure they have the requisite experience to be able to effectively fulfill these liaison responsibilities.

2 POLICY

2.1 Selection of Individuals to Provide Liaison Services

~~Liaisons~~ Formal Standards Board liaison members may be appointed by the Standards Board Chair. Other ANS Standards Committee liaison members may also be established at ~~the~~any other Standards ~~Board or consensus committee~~Committee level. Liaison members do not need to be members of the ANS Standards Committee. The need for a liaison member shall be established by the ~~committee.~~ Standards Board, Consensus Committee, Subcommittee or Working Group.

Liaison members formally assigned to the Standards Board are non-voting members and should be considered as serving the entire Standards Committee ~~and~~. The Standards Board formal liaison member may ~~be used by the~~assist Consensus Committee, Subcommittee, and Working Group Chairs ~~to help~~ with ~~their~~ interface needs~~. However,~~ as requested. A Consensus Committee, Subcommittee, or Working Group may appoint separate temporary committee liaison members from a ~~consensus committee may appoint a separate consensus committee liaison in certain instances where~~particular interfacing organization when a closer level of coordination ~~may be~~is needed ~~between that consensus committee and an~~ with an external organization~~. Subcommittees and working groups~~ in relation to a standard being developed or revised. That member may ~~establish an interface with an~~

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~~outside organization and may have a member of that organization~~ be either a voting member or a non-voting member~~, but this~~ of that committee although the position is not considered as a formal Standards Committee liaison position.

The committee chair shall identify the interface needs of the committee and determine the best way for fulfill those needs. If a liaison is needed, preference shall be given to ~~having~~ an existing committee member who is also a member of the interfacing SDO or organization ~~being designated the liaison member to perform the needed interface function. If such a member does not exist.~~ Otherwise, the committee should consider recruiting such a member or soliciting a liaison member from the ~~interfacing~~appropriate organization. The committee may solicit the assistance of the Standards Board External Communications Task Group for coordination of the recruitment of a properly qualified liaison member.

The committee appointing the liaison member may ~~make~~designate the liaison member as a full voting member of the committee ~~consistent with the Standards Committee rules, procedures, and policies. Alternately the liaison member may be~~or as a non-voting member that solely performs the needed technical interface function. The liaison member ~~shall be willing to assume the duties set forth in this policy. This person~~ shall have recognized expertise in the technology of primary interest to the assigned committee and should be familiar with ANS standards that are relevant to the assignment. The liaison member shall be willing to assume the duties set forth in this policy and abide by the ANS Standards Committee Policies, Rules and Procedures.

2.2 Requirements of Liaison Members

A liaison member shall perform the following functions:

1. Advise the committee of activities of the interface organization that are ~~related~~relevant to ANS standards.
2. Advise ~~the~~their interfacing organization of relevant ANS standards activities.
3. Solicit members from the interface organization to support other working groups and subcommittees when requested.
4. Respond to committee questions regarding the interfacing organization policies for standards activities.
5. Solicit relevant documents from the interfacing organization.
6. ~~For SDO~~Standards Developing Organization liaisons~~,~~ should work with ~~the~~their interfacing organization to permit the ANS consensus committee to review and comment on interfacing organization standards ~~which~~that may have significant ~~interfaces~~technical issues with ANS standards of that

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consensus committee. ~~Such comments would be submitted to the interfacing SDO via the liaison.~~

a. The liaison shall specifically seek the review and comment of members of the appropriate ANS consensus committee when ~~the~~that committee's scope of responsibility closely resembles that of the interfacing organization standard being balloted. Requests for such input ~~shall~~should be sought ~~through~~by the Chair of the consensus committee.

b. When a standard is balloted or offered for discussion at the consensus committee to which the liaison is assigned (including initial discussions of scope, working group membership, and other relevant interface issues), the liaison shall become sufficiently familiar with the pertinent issues to be able to fully present the ~~ANS Standards Committee's~~ viewpoint or position to interface organization. This may be ~~fulfilled~~accomplished by ~~having another~~allowing a member of the ANS Standards Committee ~~in attendance at the~~ to attend an interface organization meeting or ~~having that individual~~by allowing the ANS committee member to draft an appropriate position paper to be presented to the interfacing organization committee.

~~7.~~ 7. The liaison member shall adhere to the ANS Standards Committee Policies, Rules and Procedures particularly policy B2 on speaking for the ANS Standards Committee~~, and especially the last paragraph of that policy.~~ If policy issues arise as part of this assignment, the liaison member should seek the guidance of the ANS Standards Board Chair.

11/5/2016
06/14/88
(JFM edit, 8/16/99)
(JFM revised, 1/13/04)
~~(JFM edit, 5/27/04)~~

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ATTACHMENT 26

American Nuclear Society

American Nuclear Society Professional Divisions(PD)/Standards Committee (SC) Liaisons Interface Plan

American Nuclear Society

American Nuclear Society

Agenda

- Goals
- Objectives
- Definitions PD and SC Liaisons
- List of Liaisons
- Expectations
- Proposed Interface Improvements

Professional Division / Standards Committee Liaisons Program

- **Goals**
  - To reestablish and improve the interaction between the ANS Standards Committee (SC) and the Professional Divisions (PD) by reinforcing this topic in each meeting, by having a standing topic on each other's agenda, and by trying to support each other more effectively with our limited resources
- **Objectives**
  - To establish synergy between ANS members through PD liaisons to standards consensus committees and vice versa
    - PDs interact and its members benefit by keeping current on standards and standards projects within its discipline
    - Standards consensus committees benefit by improved access to PD subject matter experts (SMEs)
    - ANS members benefit by improved professional experience and networking in the standards development process
  - Provide feed back to the standards committee on possible new standards and revisions to existing standards
    - Also consider any delinquent standards that should be updated
  - The tenure of the PD/SC liaison should be a minimum of 3 years

American Nuclear Society

Liaisons to ANS Professional Divisions— PD Liaisons List for 2020-2021 Update (blue highlight = unconfirmed)

Updated 9/11/20

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	Dr. Gregory E. Dale	boulder993@gmail.com	NRNFCC	Chip Martin	chiprmartin@gmail.com
Aerospace Nuclear Science & Technology	*To be appointed if/when needed		Dr. Jorge Navarro	navarroj@ornl.gov	*		
Decommissioning & Environmental Sciences	Doug Davis	ddavis48@nycap.rr.com	Mr. Gerard P. van Noordennen	gpvannoordennen@energysolutions.com	FWDCC	David Hillyer	dwhillyer@hotmail.com
					ESCC	Carl Mazzola	cmazzola@projectenhancement.com
Education, Training, & Workspace Development	Drew Thomas	drew.thomas@inl.gov	Dr. James E. Baciak	jebaciak@mse.ufl.edu	LLWRCC	Steven Stamm	ssn617@comcast.net
					NCSCC	John Miller	millerj@sandia.gov
Fuel Cycle & Waste Management	Dr. Sven O. Bader, PE	sven.bader@orano.group	Dr. Sven O. Bader, PE	sven.bader@orano.group	FWDCC	Sven O. Bader, PE	sven.bader@orano.group
Fusion Energy	Leigh Winfrey	lzw290@psu.edu	Dr. Paul P. Wilson	paul.wilson@wisc.edu	RARCC	George Flanagan	gf.flanagan@outlook.com
Human Factors, Instrumentation & Controls	Richard Wood	woodrt@utk.edu	Mr. Mehdi Tadjalli	mehdi.tadjalli@yahoo.com	LLWRCC	Pranab K. Guha	pkguha101@yahoo.com
Isotopes & Radiation	Kimberly Burns (Alternate: R. Gregory Downing)	kimberly.burns@pnnl.gov (Alternate: rgd@ix.netcom.com)	Dr. Samuel E Glover	glover.14@osu.edu	ESCC	Carl Mazzola	cmazzola@projectenhancement.com
					ANS-3.4 (under LLWRCC)	William Reuland	wreuland@aol.com
					SRACC	Charlotta Sanders	charlotta@sandersengineering.us
Materials Science & Technology	Troy Munro	troy.munro@byu.edu	Dr. Colby B. Jensen	colby.jensen@inl.gov	*		
Mathematics & Computation	Paul Hulse	paul.hulse@sellafieldsites.com	Dr. Robert E. Grove	grovere@ornl.gov	SRACC	Paul Hulse	paul.hulse@sellafieldsites.com
Nuclear Criticality Safety**	Lon E. Paulson	lon.paulson@ge.com	Mr. Lon E. Paulson	lon.paulson@ge.com	NCSCC	Doug Bowen	bowendg@ornl.gov
Nuclear Installations Safety	Eric Harvey	eharvey@epri.com	Mr. Kevin J. Carroll	kevin.carroll@pnnl.gov	RARCC	George Flanagan	gf.flanagan@outlook.com
	Kevin O'Kula	kevin.okula@aecom.com			NRNFCC	Chip Martin	chiprmartin@gmail.com
	Matthew Denman	denman@kairospower.com			JCNRM	Robert Budnitz	budnitz@pacbell.net
Nuclear Nonproliferation Policy	Prof. Kathryn D. Huff	katyhuff@gmail.com	Prof. Kathryn D. Huff	katyhuff@gmail.com	ANS-60.1 (under LLWRCC)	Margaret Harding	margaret@4factorconsulting.com
Operations & Power	Scott Ackerman	scott2ackerman@gmail.com	Dr. Piyush Sabharwall	piyush.sabharwall@inl.gov	LLWRCC	Rob Burg	rjb@epm-inc.com
Radiation Protection & Shielding	Steven Nathan Lawrence Heilbronn Mike Fensin	snathan3@comcast.net lheilbro@utk.edu mfensin@lanl.gov	Mr. Steven J. Nathan	snathan3@comcast.net	SRACC	Charlotta Sanders	charlotta@sandersengineering.us
Reactor Physics	Dimitrios Cokinos	cokinos@bnl.gov	Dr. Florent Heidet	fheidet@anl.gov	SRACC	Dimitrios Cokinos	cokinos@bnl.gov
Robotics & Remote Syst	*To be appointed if/when needed		Mr. Brian E. O'Neil	oneil@lanl.gov	*		
Thermal Hydraulics	Elia Merzari	merzari81@gmail.com	Prof. Wade R. Marcum	wade.marcum@oregonstate.edu	SRACC	Andy Smetana	andy.smetana@srnl.doe.gov

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

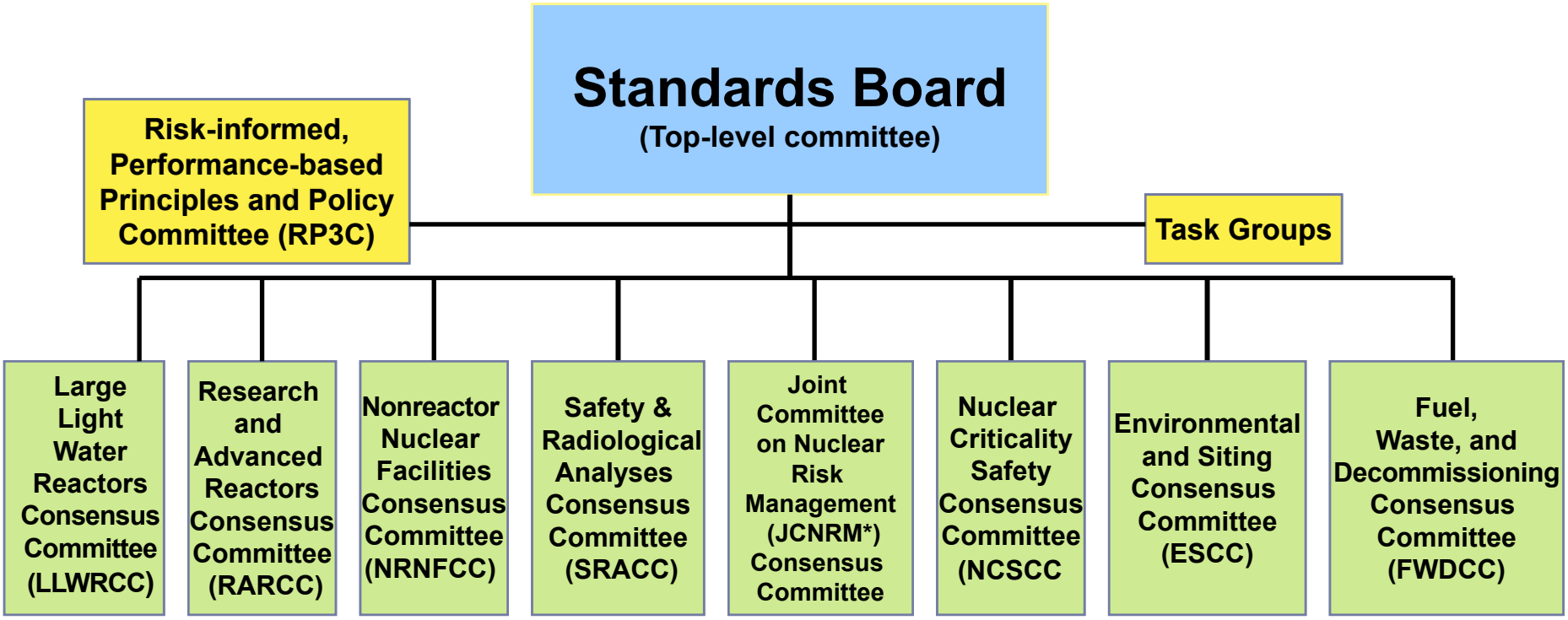
**NOTE: PD chair = PD liaison

PDC Chair	Deborah Hill	deborah.a.hill@uknnl.com
PDC Vice Chair	Thomas Remick	thomas.remick@aps.com
PDC Vice Chair	David Griesheimer	dgrieshe@outlook.com
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 (FWDCC)	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)

American Nuclear Society

The ANS Standards Committee



*The JCNRM is a joint ANS and ASME committee.

PD/SC Liaisons Program (Cont'd)

- **Definitions of PD and SC Liaisons**
  - PD Liaison – The person who interfaces to the relevant standard committee each meeting, reviews consensus committee meeting minutes within its discipline, and shares what the PD is doing in that technical area.
  - SC Liaison – The person who interfaces to the PD and shares standards and standards projects with the PD executive committee.
  - Offer PD liaison/SC liaison personnel the option of applying to becoming full-time members of the respective consensus committee/PD executive committee.
  - Each PD and SC
    - Review the personnel needs and identify PD/SC personnel to fulfill these needs
    - Review delinquent standards that are in need of updating and replacement and identify PD/SC volunteers to support these efforts

PD/SC Liaisons Program (Cont'd)

- **Expectations during each meeting**
  - PD Liaison - Review minutes of consensus committee meetings within its discipline and share what the PD is doing in that technical area. This can be done in person at the standards Consensus Committee meeting, by phone, by email or through the SC liaison. This should be done at or before the applicable Consensus Committee meeting.
  - SC Liaison - Share standards and standards projects with the PD executive committee and provide a list of personnel and review needs. This can be done in person at the PD meeting, by phone, by email or through the PD liaison. This should be done at or before the applicable PD meeting.
  - Offer PD liaison/ SC liaison personnel the options of applying to becoming full time members of the respective Consensus/PD executive committees (subject to meeting the applicable appointment requirements).
  - Each PD and SC
    - Review the personnel needs and identify PD/SC personnel to fulfill these needs
    - Review delinquent standards that are in need of updating and replacement ; identify PD/SC volunteers to support these efforts

PD/SC Liaisons Program (Cont'd)

- **Proposed Interface Improvements at all future meetings, this can apply to both the PDs and the SCs**
  - Standards Committee to provide the PDs with Project Initiation Notification System (PINS) forms issued since the last meeting for new standards in their areas of interest for dissemination to its members (completed, but provide again)
    - PDs feedback as applicable, including persons interested in participating or being kept informed of progress, at each meeting to reinforce
  - SC to provide a call for volunteers to the applicable PD for distribution to its members each meeting
    - PDs provide volunteer name and contact information to applicable standards committee, always with changes
  - PDs to indicate topics for which it sees a need for new, revised, or updates to historical standards
  - Include specific agenda items on PD/SC interface on respective meeting agendas
  - SC to setup webinar on an overview of standards to PD executive committee members

ATTACHMENT 27

Standards Committee - ANS Division Liaison Program
Original Expectations versus Reality

EXPECTATION	REALITY
SC Liaisons to attend Division meetings	Little or none, Not reasonable to have Liaison sit through each others' meetings.
Division Liaisons to attend division meetings	Little or none, Not reasonable to have Liaison sit through each others' meetings.
Suggestions for new standards developed by divisions	Little or none
Canvas division membership to provide WG volunteers	Little or none
Liaisons respond to requests related to standards issues	Little or none
Improve communications between divisions and local sections	Little or none

Standards Committee - ANS Division Liaison Program

How Should the Liaison Arrangements be Modified to be more effective

GOAL	SUGGESTED APPROACH
Improve Communication	Each to provide a permeating report to the other. Jointly develop report content.
Division Liaisons to attend division meetings	Little or none (Same as above)
Suggestions for new standards developed by divisions	Little or none
Canvas division membership to provide WG volunteers	(Is this a reasonable path?)
Liaisons respond to requests related to standards issues	It makes sense to keep this just in case.
Improve communications between divisions and local sections	Liaisons should talk before and/or after each meeting set.
Liaison Activity	Should the liaison automatically be the chair or vice chair of each organization?

Standards Committee - ANS Division Liaison Program

CONCLUSION

Current expectations need to be adjusted so that the liaisons are able to achieve them.