

Standards Board (SB)

November 15, 2022

Phoenix, Arizona

Attended	Voting Member Name	Role	Company
x	Amir Afzali (represented by Brandon Chisholm--Alternate)	At-Large (2023)	Individual
x*	Robert Becse	At-Large (2025)	Westinghouse Electric Company LLC
x*	Jennifer Call	At-Large (2024)	Tennessee Valley Authority
x	Donald "Don" Eggett	Chair (2023) At-Large (2023)	Eggett Consulting LLC
x*	George Flanagan	Ex-Officio	Individual
x*	Michelle French	Ex-Officio	WECTEC
x*	Dennis Henneke	Ex-Officio	GE Hitachi
x*	Robert Kalantari	At-Large (2025)	Engineering Planning & Management, Inc.
x*	Mark Linn	At-Large (2023)	Individual
x	Jean-Francois "Jef" Lucchini	Ex-Officio	Los Alamos National Laboratory
x	Charles "Chip" Martin	Ex-Officio	Longenecker and Associates
x*	Carl Mazzola	At-Large (2023) Ex-Officio	Los Alamos National Laboratory
x	John Nakoski	At-Large (2023)	U.S. Nuclear Regulatory Commission
x*	Andrew Smetana	Ex-Officio	Individual
x	Andrew Sowder	Vice Chair (2023) At-Large (2024)	Electric Power Research Institute
x*	Steven Stamm	At-Large (2024)	Individual
x	Larry Wetzel	Ex-Officio	BWX Technologies, Inc.
17/17 Votes = 100% Participation			
Attended	Nonvoting Member Name	Role	Company
x	Todd Anselmi	Guest	Idaho National Laboratory/Battelle Energy Alliance
x	Steven Arndt	ANS President	Oak Ridge National Laboratory
x*	James August	Guest	Individual
x*	Robert Budnitz	Observer	Lawrence Berkeley National Laboratory (retired)
x*	Raymond George	INPO Liaison	Institute of Nuclear Power Operations
x*	Ralph Hill	Guest	Hill Engineering Solutions
x*	Calvin Hopper	Observer	Individual
x	N. Prasad Kadambi	RP3C Chair/Observer	Kadambi Engineering Consultants
x	Craig Piercy	ANS CEO/Exec. Director	American Nuclear Society
x*	Frances Pimentel	NEI Liaison	Nuclear Energy Institute
x*	Mehdi Reisi-Fard	Observer	U.S. Nuclear Regulatory Commission

*Participated remotely.

1. Welcome and Roll Call

SB Chair Don Eggett welcomed those participating in person and those joining the meeting remotely. Roll call was taken, and a quorum was achieved.

The following individual's terms ending/beginning were recognized:

- *John Nakoski/U.S. Nuclear Regulatory Commission (NRC)—at-large member term ending 11/17/22*
- *Mehdi Reisi Fard/NRC—added as observer with term as at-large member to begin 11/17/22*
- *Sudesh Gambhir—change from Institute of Nuclear Power Operations (INPO) liaison to observer*
- *Raymond George/INPO—new INPO liaison*

2. Approval of Agenda

The agenda was approved with the flexibility to move discussion items as needed to accommodate schedules. Don Eggett provided an overview of reports that will be presented throughout the meeting. He added that a workshop has been scheduled on December 1, 2022, at the Electric Power Research Institute (EPRI) on the Nuclear Energy Institute (NEI)/EPRI North American Advanced Reactor Roadmap and the Standards Development Organization (SDO)-led group. Everyone should have received an invitation and is encouraged to participate.

3. SB Chair Report

A. Report to the Board of Directors

Don Eggett reviewed the report he submitted to the ANS Board of Directors. The report is [embedded](#) for your reference.



3A-SB_Chair_2022_
Winter_Meeting_FIN

B. Report from ANS President's Special Session

The President's Special Session with Steven Arndt was held Sunday morning. Points discussed include the following:

- We need to be much more proactive and reach out to the industry and engage with the industry and public media.
- International relations are becoming increasingly more important, including working with the Canadian Standards Association (CSA) Group, the International Atomic Energy Agency (IAEA), and the World Nuclear Association (WNA).
- ANS is developing a professional certification program to pilot and to determine if a business model due mid-year 2023 shows the program is cost-effective to pursue.

C. Status of New Balance of Interest (BOI) Certification

Six of the eight consensus committees have approved BOI reports with the new classifications. The Nonreactor Nuclear Facilities Consensus Committee (NRNFCC) BOI report is in approval. The Joint Committee on Nuclear Risk Management (JCNRM) is working on their BOI to bring it into compliance.

D. Report from September 28, 2022, NRC Standards Forum

Several presentations were made by ANS including Eggett, Andrew Sowder, George Flanagan, and Kent Welter at the recent NRC Standards Forum. Eggett reported that the Forum went very well.

E. Update on Formation of an Executive Advisory Committee (EAC) (Action Item 9/2022-02)

Formation of the EAC is in progress.

F. New Actions and SB Assignments

Eggett stated that he considers new actions and SB assignments a work in progress.

G. General Comments on Various SB Initiatives

This item will be discussed throughout the meeting. Eggett remarked that he feels that the SB needs to continue to hold interim meetings as initiated earlier in 2022 to discuss new business and strategic goals and suggested that a meeting be scheduled in mid-February 2023.

4. SB Vice Chair Report

A. SMART Matrix Goals & Objectives



4A_SMART_MATRIX
_Issued_5-27-22_w-c

After a brief look at the SMART Matrix, it was determined that a thorough review and update of actions are needed before being brought to the Standards Board for review. A meeting will be scheduled for Chip Martin, Prasad Kadambi, and Jim August to work with Andrew Sowder on the update.

ACTION ITEM 11/2022-01: Andrew Sowder to lead a revision of the SMART Matrix with Chip Martin, Prasad Kadambi, and Jim August. (NOTE: Pat Schroeder to set up a poll to facilitate a meeting in December.)
DUE DATE: February 1, 2023

B. Standards Service Award

- Recognition of Douglas Bowen as 2022 Standards Service Award (SSA) Recipient
Bowen received the SSA at the opening plenary on Monday.
- Reminder of 2023 Selection Committee Membership
Andrew Sowder (chair), Dennis Henneke, John Nakoski, and Larry Wetzel were appointed to the 2023 Standards Service Award Selection Committee at the June 2022 Standards Board meeting. With Nakoski resigning from the Standards Board, he will not be able to serve on the selection committee; however, the policy requires only three members so no individual was added to the committee.

An announcement will be made in the New Year that the nomination period is open until March 1, 2023. Extensions are often issued. Nominations will be provided to the selection committee once the nomination period closes. A link to the list of past participants was dropped in the meeting chat. See <https://www.ans.org/honors/recipients/award-standserv/> for the list of past recipients.

The following excerpt from the policy on selecting the Standards Service Award recipient was provided to members via chat for reference:

“At the ANS Standards Board winter meeting, the Standards Board Chair shall appoint a special Selection Committee of at least three Standards Board members, one of whom shall be designated as Chair. It is suggested, but not required, that 1) the Standards Board Vice Chair serve as the Selection Committee Chair; 2) that members be chosen from diversified consensus committees and, if possible, 3) that previous award recipients serve on the Selection Committee.”

5. Secretary/Staff Reports



5_Secretary-Staff-Report.docx

Pat Schroeder summarized the [embedded report](#). A few questions were asked following the report. Members questioned the loss of associate members which was attributed to multiple reasons (i.e., change to degree/career, loss of interest, loss of contact). ANS staff attempts to follow up and reassign associate members.

Staff has updated the ANS Standards Committee Glossary of Terms and Definitions (link to [current version issued in early 2019](#)), but new terms need to be reviewed by knowledgeable individuals to select preferred terms. Also, definitions in newly issued JCNRM standards need to be reviewed to determine if they are applicable to ANS standards and should be included in the Glossary. Without these two tasks completed, the Glossary cannot be finalized. A suggestion was made to make the Glossary a living document or to update the Glossary on an annual basis. Kadambi suggested eliminating the selection of preferred terms. It was noted that terms are added by working groups and approved by subcommittees and consensus committees. Stamm clarified that working groups are not required to use the preferred term, but that it is recommended. The Glossary foreword provides guidance to working groups if the preferred terms are not selected. No agreement was reached on eliminating preferred terms and no assignments were made for members to review terms added to the revised Glossary or to review new JCNRM terms although the SB chair asked for volunteers at the end of the discussion.

6. NEI/EPRI North American Advanced Reactor Roadmap / Refocus of Nuclear Standards Collaborative to SDO-Led Initiative

This agenda idea was skipped to allow the presentation on the American Society of Mechanical Engineers (ASME) Plant System Design (PSD) Standard to be presented. As noted in Don Eggett's opening remarks, a workshop has been scheduled on December 1, 2022, at EPRI's office on the NEI/EPRI North American Advanced Reactor Roadmap and the SDO-led group. The NEI/EPRI North American Reactor Roadmap is covered in the EPRI liaison report under agenda item 12 B.

7. Status of the ASME Plant Systems Design Standard



7-A New Standard for Design for ANS

Ralph Hill was introduced by Don Eggett as the chair of the ASME's PSD Committee. Hill presented the [embedded presentation](#) on the new PSD standard in development. The draft is expected to be completed for ballot in 2023 and issued in 2024. Hill added that the PSD standard provides more detail on ANS-GS-30.1, *Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs*, and ANS-30.2, *Classification and Categorization of Structures, Systems, and Components for New Nuclear Power Plants*. Mark Linn sees the PSD standard as a good example of how two societies can work together. Andrew Sowder added that this approach is supported by EPRI. Sowder would like to see everyone apply the PSD standard. Hill added that the PSD standard doesn't provide the method on "how to" meet reliability goals but stated that Rick Grantom and Pamela Nelson are working on the PSD standard. However, Henneke checked with Grantom and he was not aware of the effort to provide the "how to." With the gap recognized, Hill plans to set up a call with Henneke, Nelson, Grantom, and others to address. Since the PSD standard is being developed by ASME, no action item was assigned by the ANS SB.

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

A. RP3C Meeting Report



8_RP3C Report to
Standards Board_11

RP3C Chair Prasad Kadambi presented the [embedded slides](#). He explained that RP3C's work is to modernize ANS standards, but there is a disconnect with the U.S. Department of Energy (DOE) and NRC. He feels that the disconnect has made the work of working group chairs more of a challenge. He used Kent Welter as an example as Welter will be stepping down from the chair role of ANS-30.2 in January 2023. Kadambi explained his effort to incorporate RIPB into proposed new standard ANS-60.1, *Civilian Nuclear Export Controls*. He contends that ANSI/ANS-2.26-2004 (R2021), *Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design*, is the first risk-informed, performance-based (RIPB) ANS standards. Kadambi would like to see more support for working groups from consensus committees. He would also like each consensus committee chair to report what RIPB activities are ongoing within their consensus committee. Don Eggett suggested that chairs take the opportunity to provide an update during consensus committee reports later in the afternoon.

Kadambi also reported on the RIPB guidance document training sessions which are to be scheduled for late 2022/early 2023. He will provide an update on RP3C's training activities at the February 2023 interim SB meeting.

ACTION ITEM 11/2022-02: Prasad Kadambi to provide the SB an update on the guidance document training activities at the February 2023 interim SB meeting
DUE DATE: At the February 2023 interim SB meeting

Lastly, Kadambi recognized the success of RP3C's Community of Practice with 29 presentations available, provided a brief summary on the objectives of the ANS Advanced Reactor Working Group (ARWG), and provided a summary of a report on Reimagining Requirements Management provided by Svetlana Lawrence from Idaho National Laboratory at RP3C's meeting the previous day.

B. RP3C Member Participation/Bylaws

Kadambi recognized that the RP3C Bylaws are out of date. He has been focusing on performance objectives. His recommendation to update the Bylaws at yesterday's RP3C meeting received push back. Kadambi asked for SB approval to pursue modernization of the Bylaws to reflect current practices and discard some of the requirements in the Bylaws that are not very useful. Dennis Henneke stated that he raised an issue regarding ballot participation not complying with the Bylaws. Robert Budnitz identified himself as the RP3C member that doesn't feel a revision of the Bylaws is worth a volunteer effort. James August agreed. Budnitz clarified that if the procedures are good, there's no need to review. The Bylaws should provide flexibility.

Kadambi suggested that provisions in the Bylaws that allowed accomplishments should be retained but that anything that challenges productivity should be amended. The SB agreed that Kadambi would consider a revision of the RP3C Bylaws with the understanding that no deadline be set due to other commitments.

ACTION ITEM 11/2022-03: Prasad Kadambi and future appointed ad hoc committee members to evaluate the need for a revision of the RP3C Bylaws to reflect current practice.
DUE DATE: No deadline set.

Henneke pointed out that the RP3C Bylaws are similar to other rules and procedures that require balloting. Typically, RP3C ballots have about a 25% response. He would like to see the chair review membership and clean up the roster. Consensus committee chairs and working group chairs with standards in development using RIPB methods are automatically added to the roster and need to be included in RP3C activities. SB members discussed ways to rectify the problem. A decision was made to issue a poll to RP3C members to gather interest and adjust membership accordingly.

ACTION ITEM 11/2022-04: Pat Schroeder to issue a poll to RP3C members to determine if they would like to remain on the committee as a voting member, remain on the committee as an observer, or be released from the RP3C. Those that do not respond will be removed from RP3C's roster with the exception of consensus committee and working group chairs with active projects who would be changed to non-voting observers.
DUE DATE: December 1, 2022

9. Current and Emergent Issues

A. Large Light Water Reactors Consensus Committee (LLWRCC) and Research and Advanced Reactors Consensus Committee (RARCC) Rebranding Proposal



9A_LLWRCC-RARCC
_Merge_PPT_2_SB_20

Mark Linn made the [embedded presentation](#) on synergies of the LLWRCC and RARCC and rebranding proposal. The proposal recognizes challenges for updating LLWRCC standards and for encouraging volunteers to support these efforts. The proposal was issued to the LLWRCC for review and comment. Many comments were received. All comments were supportive of some change. While it is not recommended to merge the two consensus committees, there may need to be changes. Many of the light water reactor (LWR) standards are considered good information for advanced reactors. The guidance document platform is thought to be welcomed by the community. The LLWRCC recommends that the SB establishes a task force to consider all potentially beneficial changes in a short timetable. John Nakoski asked Linn if the LLWRCC thought about what their role could be if their role is diminishing. Linn expects that the current fleet will continue to operate for the next 20-25 years. He believes it would be helpful to get the LWR and advanced reactor community to talk and share knowledge. Andrew Sowder added that eventually an advanced reactor will be considered a reactor. They could think about the LLWRCC being for "operating reactors" which would include advanced reactors once online. Don Eggett proposed to leave these decisions to the task force. Sowder would caution writing off large LWRs so soon.

ACTION ITEM 11/2022-05: Mark Linn with Jim August to give the synergies of the LLWRCC and RARCC and rebranding proposal more thought and report back to the SB at the June 2023 meeting.
DUE DATE: June 1, 2023

B. Process for Consensus Committee Assignments on Future Standards and Products that Involve Two Consensus Committees (Action Item 9/2022-03)

A meeting was held September 27, 2022, to discuss future consensus committee assignments involving more than one consensus committee. The consideration of a process was due to the recent initiation of the risk-informed, emergency preparedness (RIEP) guidance documents under LLWRCC with JCNRM's support. The September 27th meeting ended with a decision to hold off on developing any formal guidance and see how the collaboration of JCNRM and LLWRCC goes on the RIEP guidance documents and use lessons learned to develop a procedure if deemed necessary.

C. Consensus Committee Leadership Succession Planning

- Terms ending 2/7/23: C. Mazzola, L. Wetzel, R. Shackelford, G. Flanagan, B. Bevard, A. Smetana, J. Jarvis
- Terms ending 6/16/23: J. Lucchini, M. Stasko
- Term ending 7/23/23: M. French
- Term ending: 9/12/23: C. Martin
- Terms ending 10/15/23: M. Linn, A. De La Paz
- Term ending 11/11/23: L. Parks
- Term ending 2/15/24: D. Henneke
- Term ending 5/3/24: A. Maioli

Don Eggett stated that succession planning was added to the agenda as a reminder. Pat Schroeder confirmed that chairs with terms ending in February 2023 confirmed their interest in another term except for RARCC Chair George Flanagan and RARCC Vice Co-chair Bruce Bevard who have chosen not to seek an additional term. Notifications will go out to the consensus committees announcing leadership opportunities.

ACTION ITEM 11/2022-06: Pat Schroeder to notify consensus committee members of chair and vice chair opportunities for committees with leadership terms ending February 2023.
DUE DATE: December 1, 2022

D. Status of ANS-GS-30.1, *Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs*

Mark Linn reported that ANS-GS-30.1 was converted to a guidance standard by removing all requirements. He stated that comments received on the last ballot became obsolete as objections were on requirements that no longer exist; however, the four pillars remain in the guidance standard. The draft has been completed but will need to restart the approval process at the subcommittee level. The draft will also go back to the RP3C, JCNRM's Subcommittee on Risk Application (SCoRA), and be offered to non-developing consensus committees (NDCC). Linn added that work on ANS-30.1 began in 2014.

Dennis Henneke expressed concern on retaining the same nomenclature in ANS-GS-30.1 even as a guidance standard. He urged that ANS-GS-30.1 be made consistent with current industry nomenclature and that comments be responded to. Don Eggett asked that the discussion be tabled and handled offline.

ACTION ITEM 11/2022-07: Don Eggett, Andrew Sowder, and Mark Linn to discuss Dennis Henneke's and SCoRA's unaddressed comments on ANS-GS-30.1, *Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs*. (NOTE: Pat Schroeder to facilitate the discussion.)
DUE DATE: December 1, 2022

E. Status of ANS-57.11, *Integrated Safety Assessments for Nonreactor Nuclear Facilities*

Chip Martin reported that the ANS-57.11 Working Group has a meeting scheduled tomorrow. He expects the working group to make enough progress at tomorrow's meeting so that the draft will be ready for ballot soon. The draft has been completely rewritten and will start back at the subcommittee review with parallel review by SCoRA, RP3C, and other NDCCs.

F. Status of RIEP Guidance Document

The Project Initiation Notification Systems (PINS) Form for ANS-3.8, *RIEP Guidance Document: Guidance for Risk-Informing Emergency Preparedness Programs for Nuclear Facilities*, was

approved by the Standards Board on October 27, 2022. The working group was requested to develop a Project Implementation Plan.

10. Review of Open Action Items Report

A. Report on Open Action Items

Open action items were reviewed. The action item status report can be found following these minutes. The following action items were assigned during the discussion:

ACTION ITEM 11/2022-08: Andrew Sowder to reach out to the Institute of Electrical and Electronics Engineers (IEEE) for an interface or liaison.
DUE DATE: June 1, 2023

ACTION ITEM 11/2022-09: Andrew Sowder to include an assignment in the SMART Matrix for SMART Matrix assignees to let Don Eggett and Andrew Sowder know how many new members they need to complete assigned actions. The follow up action is then for Don Eggett and Sowder to assign SB members and observers as needed.
DUE DATE: June 1, 2023

B. Concurrence to Close Report of Completed Action Items

Members were provided a few minutes to review the report of completed action items after which the following motion was made:

MOTION:

To close the list of completed action items.

The motion was approved unanimously. Action items approved as closed are provided on the [embedded report](#).



10B_COMPLETED_SB_
ActionItemStatusRepo

11. Consensus Committee Chair Reports

(All Consensus Committee Chair reports have been combined and embedded here.)



11_PrioritySurveyRa 11A-H_CCC_Reports
nking_2015.pdf .pdf

A. Environmental and Siting Consensus Committee (ESCC)

ESCC Chair Carl Mazzola reviewed his chair report providing an update of ESCC projects and standards. Of note were two PINS recently approved to initiation revisions and nine standards in development. See the combined chair report providing a full update of ESCC activities.

- B. Fuel, Waste, and Decommissioning Consensus Committee (FWDC)C)
FWDC Chair Jef Lucchini provided a summary of his chair report. He recognized a significant effort to recruit new members specifically with decommissioning experience. FWDC recently added three new members and one observer. See the combined chair report providing a full update of FWDC activities.
- C. Joint Committee on Nuclear Risk Management (JCNRM)
Past JCNRM Co-chair Robert Budnitz provided a short report on behalf of JCNRM Co-chair Dennis Henneke who was in Vienna attending an IAEA meeting. Due to the time difference, Henneke had to cut his participation on the SB meeting a little short. A summary of Henneke's report was given. Budnitz acknowledged the committee's 200+ dedicated volunteers and the recent reorganization. See the combined chair report providing a full update of JCNRM activities.
- D. Large Light Water Reactor Consensus Committee (LLWRCC)
LLWRCC Chair Michelle French provided an overview of her chair report. The LLWRCC has six projects in development. An inquiry was recently received on ANSI/ANS-3.1-2014 (R2020), *Selection, Qualification, and Training of Personnel for Nuclear Power Plants*, from Crane questioning whether a vocation program can count towards experience. A response is being developed by the working group. Membership changes were recognized including the death of long-time member Evan Lloyd. See the combined chair report providing a full update of LLWRCC activities.
- E. Nonreactor Nuclear Facilities Consensus Committee (NRNFCC)
NRNFCC Chair Chip Martin provided an update on the committee's activities. He stated that he's been working on a PINS for proposed new standard ANS-3.6, *Requirements for Preoperational and Startup Testing*, for a while. He is also considering development of a PINS on a graded approach for probabilistic risk assessment development which he will discuss with the JCNRM. Martin may try to seek funding from DOE or NRC for proposed new standard ANS-2.36, *Accident Analysis for Aircraft Crash into Hazardous Facilities*, to help with calculations. Lastly, he reported that the working group initiating a revision of ANSI/ANS-58.16-2014 (R2020), *Safety Categorization and Design Criteria for Nonreactor Nuclear Facilities*, is working on harmonization with the group revising ANSI/ANS-2.26-2004 (R2021), *Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design*. See the combined chair report providing a full update of NRNFCC activities.
- F. Nuclear Criticality Safety Consensus Committee (NCSCC)
NCSCC Chair Larry Wetzel recognized activities and progress. NCSCC has four standards in development and three draft standards that have been issued to the NCSCC for ballot currently in comment resolution. A draft for the revision of ANSI/ANS-8.22-1997 (R2016), *Nuclear Criticality Safety Based on Limiting and Controlling Moderators*, was issued for subcommittee review. Several subcommittee members do not feel that their objections were addressed. A meeting is being scheduled to discuss unresolved objections. Lastly, Wetzel stated that the ANS-8 Subcommittee is building a list of definitions to standardize definitions within ANS-8 standards.

ACTION ITEM 11/2022-10: Larry Wetzel to keep Don Eggett and Steven Stamm informed of progress on standardizing ANS-8 terminology. DUE DATE: June 1, 2023

- G. Research and Advanced Reactors Consensus Committee (RARCC)
RARCC Chair George Flanagan reported on the committee's activities. Of significance is the need to replace the working group chair for ANS-30.2, *Classification and Categorization of Structures, Systems, and Components for New Nuclear Power Plants*, and resolution of comments on the

recent ballot of ANS-20.2, *Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel, Molten-Salt Reactor Nuclear Power Plants*. With both George Flanagan and Bruce Bevard deciding not to accept another term as chair and vice chair (respectively), the committee will have leadership openings in February 2023.

- H. Safety and Radiological Analyses Consensus Committee (SRACC)
SRACC Chair Andrew Smetana provided a report on SRACC activities and membership changes. He is working on broadening the base of the committee membership. SRACC is in the process of adding a new member from Constellation Energy which will help. Smetana has come to the conclusion that SRACC does not have the expertise to initiate ANS-58.15, *Criteria for Severe Accidents*, from the 2015 priority survey. Additionally, no interest was found in the project.

ACTION ITEM 11/2022-11: Pat Schroeder to update the status report of the top 20 standards from the 2015 priority survey to recognize that no interest was found in ANS-58.15, *Criteria for Severe Accidents*.

DUE DATE: June 1, 2023

12. Other Committee Reports



12_TG_Scopes&Members.pdf

A. Standards Board Task Group (TG) Reports

In the interest of time, task group reports were skipped.

- Policy Task Group Report (Chair: Don Eggett)
- External Communications Task Group Report (Chair: OPEN)
- Internal Communications Task Group Report (Chair: Robert Becse)
- Priority Task Group Report (Chair: OPEN)
- Sales Task Group Report (Chair: Jen Call)

B. Liaison reports (External Liaisons to the Standards Board)

- American Concrete Institute (ACI): Open
No report provided.
- American National Standards Institute (ANSI): Prasad Kadambi
No report provided.
- American Society of Civil Engineers (ASCE): Carl Mazzola (for ESCC)
No report provided.
- American Society of Mechanical Engineers (ASME)/NQA-1: Chip Martin



12B_Liaison Report to
ANS SB on ASME-NQ

Chip Martin reported that the NQA-1 Committee is looking at a holistic review of all parts of the standard to ensure that terminology in Part 1 and 2 agrees. The NQA-1 Committee is very

concerned about harmonization with other codes and standards committees. They are seeking better alignment with new technology and working with their International Working Groups. See Martin's [embedded liaison report](#) for full details.

- Electric Power Research Institute (EPRI): Andrew Sowder



12B_2022 Nov EPRI
liaison report for SD

See the [embedded report](#) presented by Andrew Sowder. The release of the NEI/EPRI North American Roadmap has been pushed to the end of December 2022. The group wasn't entirely happy with all of the action items across the entire roadmap. They are making sure that the actions are actionable. Eric Thornsberry with EPRI is taking on advanced reactor risk-related items. Sowder is continuing to work on EPRI support for ANS standards.

Sowder brought to the SB a concern from Fernando Ferrante with EPRI about the JCNRM expanding their work. Sowder explained that Ferrante is concerned that SDOs have enough challenges with developing standards and do not have the resources to broaden their charter to develop guidance documents as well. Robert Budnitz suggested that he take this concern back to the JCNRM Executive Committee to address.

ACTION ITEM 11/2022-12: Robert Budnitz to bring Fernando Ferrante's concern on broadening the JCNRM's charter to include guidance documents to the JCNRM Executive Committee to address with Ferrante.
DUE DATE: January 1, 2023

- Health Physics Society (HPS): Ali Simpkins (for the Shielding Subcommittee/ANS-6)
No report provided.
- Institute of Electrical and Electronics Engineers (IEEE)/ Nuclear Power Engineering Committee (NPEC): Open
No report provided.
- Institute of Nuclear Power Operations (INPO): Raymond George
No report provided.
- International Organization of Standardization (ISO)/Technical Committee (TC) 85/Subcommittee (SC)-6/U.S. Nuclear Technical Advisory Group (NTAG): Open
No report provided.
- National Council on Radiation and Protection & Measurements (NCRP): Open
No report provided.
- Nuclear Energy Institute (NEI): Frankie Pimentel



12B_NEI Report to
ANS Standards Board

Frankie Pimentel confirmed that NEI will be working with ANS and ASME on formation of the SDO-led industry group to support advanced reactors. See Pimentel's [embedded report](#) for her full report.

- National Fire Protection Association (NFPA): Open
No report provided.

13. Other Business

- A. Standards Panel with Education, Training & Workforce Development Division (ETWDD) at Annual Meeting



13A-ETWDD_StandardsLiaisonNotes_20

Steven Stamm provided the [embedded report](#) from a recent discussion with James Baciak with the ETWDD. A suggestion was made for a panel on standards to be made at the next Conference on Nuclear Training and Education (CONTE). With no standards representative planning to attend CONTE, an alternate suggestion is to hold a standards panel at the ANS annual meeting. No decision was made, and no action was taken.

- B. Status of Update to 2019 ANS Standards Committee Glossary of Definitions and Terminology
This item was discussed under item #5, Secretary/Staff Report.

- C. Report on from ANS CEO/Executive Director and ANS President
Craig Piercy stopped into the SB meeting to provide a report. He stated that we are three years out from when the change plan was initiated, and we are much stronger. The deficit is down, and ANS can be supported with proceeds from our investments. Membership is up about 10%. Overall, ANS is in a much better position. Piercy hasn't focused on standards yet but will. Standards need a clear plan to move forward. Piercy hears that our standards are slowly losing relevance. He has also heard that the SB is out of touch and dealing with old grievances. Advanced reactor developers don't want to be constrained by standards. We need to define our role in the advanced reactor space—to do less but better. While standards revenue is up, he expects to see standards revenue decline in the years to come. Andrew Sowder said that he isn't surprised by Piercy's comments but sees an opportunity with the NEI/EPRI North American Roadmap for ANS to step up. Piercy said that if we need to step up standards with funding standards writers, this is a model worthy of exploration. We need to capitalize on current opportunities to be more relevant, more influential.

Prasad Kadambi questioned Piercy on what ANS brings to the table that no one else does—standards or anything else. Piercy sees a more holistic view of the community, not just energy. He thinks NEI does great work, but ANS can expand broader and is an accredited standards developer. As the ARWG Chair, Kadambi has experienced great difficulty getting ANS Professional Divisions to work together. He sees this as an obstacle. Piercy added that ultimately standards are a money-making proposition, but when all overhead is added, the standards program is probably just clearing expenses. Piercy stated that you can't scale on the back of volunteers. We need to look at incentives for our volunteers. Todd Anselmi said that ASME has the same challenge with volunteer resources. Sowder expects there to be support for standards development coming out of the Roadmap.

ANS President Steven Arndt addressed the SB. Arndt feels that ANS is doing good and is trying to do better. He would like to hear that standards are useful and used. He sees trial use as a really good opportunity for new standards. Arndt recognized several harmonization efforts that we would like to at least be a part of. He has regular conversations with NEI and is talking with ASME and

other people. Arndt recognized that the ANS Board of Directors is looking at a professional certification program, not to be confused with the Professional Engineer license. A special

committee has been formed to evaluate a professional certification program for ANS. They are putting together a need statement and looking at where this makes sense and looking at the unique aspect of nuclear technology. A business case will be developed for approval at the June 2023 meeting. A consultant will be hired with the intent to stand up the program within 18-24 months. Standards are expected to be part of the program. ANS is also trying to reintroduce education and interaction with thought/political leaders and improve media relations. Additionally, collaboration with other organizations both nationally and internationally is in works. Dennis Henneke is involved with the IAEA harmonization effort and will keep the SB informed.

14. Member Feedback

A. Opportunity to Share Positive Feedback and Express Appreciation

The following points were made:

- The agenda was good and had important topics.
- Member participation was excellent.
- The sound quality for remote participants was very good.

B. Meeting Plus/Deltas

The following points and suggestions were made:

- The meeting could have started earlier and aligned better with the scheduled lunch break.
- The agenda was too full; more topics should be pushed to interim meetings and removed from annual and winter meeting agendas.
- Interim meetings could be used for consensus committee and liaison reports.
- It is important to stick to the agenda.
- Challenging topics should be tabled to allow more time for discussion.
- Annual and winter meetings should be used to discuss new issues.
- Redundant discussions within meetings and from meeting to meeting need to be reduced.
- COVID has really reduced in-person attendance which puts a barrier on valued discussions.

13. Review of Action Items from This Meeting

Action items assigned during the meeting were reviewed.

14. Future Meetings

- ANS Annual Meeting in Indianapolis, Indiana, at the Marriott Indianapolis Downtown from June 11-14, 2023
- ANS Winter Meeting in Washington, D.C., at the Washington Hilton from November 5-8, 2023

The SB will hold an interim meeting in February 2023.



ACTION ITEM 11/2022-13: Pat Schroeder to issue a poll for the two weeks prior to the JCNRM meeting to determine a date for the SB to hold an interim meeting in February 2023. DUE DATE: December 1, 2022
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15. Adjournment

The meeting was adjourned.

Standards Board Action Item Status Report from 11/15/22 Meeting

Action Item	Description	Responsibility	Status/Comments
11/2022-01	Andrew Sowder to lead a revision of the SMART Matrix with Chip Martin, Prasad Kadambi, and Jim August. (NOTE: Pat Schroeder to set up a poll to facilitate a meeting in December.) DUE DATE: February 1, 2023	Sowder, Eggett, Schroeder	OPEN
11/2022-02	Prasad Kadambi to provide the SB an update on the guidance document training activities at the February 2023 interim SB meeting DUE DATE: At the February 2023 interim SB meeting	Kadambi	OPEN
11/2022-03	Prasad Kadambi and future appointed ad hoc committee members to evaluate the need for a revision of the RP3C Bylaws to reflect current practice. DUE DATE: No deadline set.	Kadambi	OPEN
11/2022-04	Pat Schroeder to issue a poll to RP3C members to determine if they would like to remain on the committee as a voting member, remain on the committee as an observer, or be released from the RP3C. Those that do not respond will be removed from RP3C's roster with the exception of consensus committee and working group chairs with active projects who would be changed to non-voting observers. DUE DATE: December 1, 2022	Schroeder	OPEN
11/2022-05	Mark Linn with Jim August to give the synergies of the LLWRCC and RARCC and rebranding proposal more thought and report back to the SB at the June 2023 meeting. DUE DATE: June 1, 2023	Linn	OPEN
11/2022-06	Pat Schroeder to notify consensus committee members of chair and vice chair opportunities for committees with leadership terms ending February 2023. DUE DATE: December 1, 2022	Schroeder	OPEN
11/2022-07	Don Eggett, Andrew Sowder, and Mark Linn to discuss Dennis Henneke's unaddressed comments on ANS-GS-30.1, Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs. (NOTE: Pat Schroeder to facilitate the discussion.) DUE DATE: December 1, 2022	Eggett, Sowder, Linn, Schroeder	OPEN
11/2022-08	Andrew Sowder to reach out to the Institute of Electrical and Electronics Engineers (IEEE) for an interface or liaison. DUE DATE: June 1, 2023	Sowder	OPEN
11/2022-09	Andrew Sowder to include an assignment in the SMART Matrix for SMART Matrix assignees to let Don Eggett and Andrew Sowder know how many new members they need to complete assigned actions. The follow up action is then for Don Eggett and Sowder to assign SB members and observers as needed. DUE DATE: June 1, 2023	Sowder, Eggett	OPEN
11/2022-10	Larry Wetzel to keep Don Eggett and Steven Stamm informed of progress on standardizing ANS-8 terminology.	Wetzel	OPEN

	DUE DATE: June 1, 2023		
11/2022-11	Pat Schroeder to update the status report of the top 20 standards from the 2015 priority survey to recognize that no interest was found in ANS-58.15, Criteria for Severe Accidents. DUE DATE: June 1, 2023	Schroeder	OPEN
11/2022-12	Robert Budnitz to bring Fernando Ferrante's concern on broadening the JCNRM's charter to include guidance documents to the JCNRM Executive Committee to address with Ferrante. DUE DATE: January 1, 2023	Budnitz	OPEN
11/2022-13	Pat Schroeder to issue a poll for the two weeks prior to the JCNRM meeting to determine a date for the SB to hold an interim meeting in February 2023. DUE DATE: December 1, 2022	Schroeder	OPEN
9/2022-02	Don Eggett, Robert Kalantari, and Donald Spellman to develop a proposal for a limited trial for the EAC concept to be used as solicitation material. DUE DATE: June 1, 2023	Eggett, Kalantari Spellman	In progress Meeting held on 10/17/22. Invitation letter drafted. Eggett acknowledged that we need to move forward.
9/2022-05	Robert Becse and Raymond George to work with John Mahoney on standards input to the new nuclear professional certification program. DUE DATE: June 1, 2023	Becse, George, Mahoney	In progress Meeting held 10/4/22. The BOD is working on the certification program and is interviewing a contractor to develop the certification—likely to be after the June 2023 BOD meeting. A poll will be issued to ANS members. A follow up call will be held with J. Mahoney once the contractor is selected. Becse will take concern of continual recertification/\$ to Mahoney.   10182022_ANS Prof ANS Cert Progm_Decisior Committee.docx
6/2022-01	Pat Schroeder to review the respectful behavior policy and recommend how the SB should address.	Schroeder	CLOSED After review and discussion w/D. Eggett, it was deemed appropriate to disseminate the policy to the full Standards Committee as a reminder. Policy sent 7/13/22. Members agreed
6/2022-02	Andrew Sowder to highlight those specific items on the SMART Matrix to be discussed before each Standards Annual and Winter Board meeting. DUE DATE: Before each SB meeting.	Sowder	On-going
6/2022-05	Andrew Sowder to chair the 2023 Standards Service Award Selection Committee with support from Dennis Henneke, and Larry Wetzel. DUE DATE: May 1, 2023	Sowder, Henneke, Wetzel	OPEN The action item has been updated to remove J. Nakoski.
6/2022-10	Andrew Sowder to follow up with Richard Wood on efforts to harmonize IEEE standards with ISO, IEC, IAEA, and CORDEL standards and guidance documents.	Sowder	CLOSED This action item was closed with a new action item created for A. Sowder to reach out to IEEE for an interface/liaison. (See Action Item 11/2022-08)

			Kalantari reported that IEEE is updating all nuclear standards. He suggested to contact Shaun White and sent contact info to Schroeder, Eggett. John White (johnlwhite@mac.com) Cell: (254) 897-6674
6/2022-13	Robert Youngblood [for Prasad Kadambi] to request James O'Brien and Prasad Kadambi to establish a mechanism to collect feedback on the use of the Guidance Document. DUE DATE: June 1, 2023	Kadambi	OPEN R. Youngblood sent message to P. Kadambi 6/14/22.
6/2022-14	Consensus committee chairs to work on succession planning for leadership terms ending in 2023.	Consensus Committee Chairs	CLOSED
6/2021-04	Policy Task Group to contact Standards Board members on possible changes to priorities for ANS standards development. NOTE: This action is a reassignment from Action Item 6/2018-02. DUE DATE: June 1, 2023	Policy Task Group	OPEN
6/2021-15	SMART Matrix assignees to review the SMART Matrix and let Don Eggett and Andrew Sowder know how many new members they need to complete assigned actions.	SMART Matrix Assignees	CLOSED This action was closed with the assignment of a new action item for A. Sowder to include in the SMART Matrix. (See Action Item 11/2022-09)
6/2021-16	Don Eggett and Andrew Sowder to assign Standards Board members and observers to task groups.	Eggett Sowder	CLOSED This action was closed with the assignment of a new action item for A. Sowder and D. Eggett. See Action Item 11/2022-09)
6/2021-17	Policy Task Group to develop guidance for working groups on copyright and plagiarism for inclusion in the toolkit. DUE DATE: November 1, 2022	Policy Task Group/Eggett	OPEN It was confirmed that this action is both external and internal. For external, you need to make sure copyright is acknowledged and follow up. August feels that plagiarism is an ethical issue. ANS routinely provides permission to use an object from a standard provided credit is given. Schroeder will check if ANS has encountered this issue with other publications.