

Standards Board (SB) Post-Meeting

December 4, 2023

VIRTUAL

Attended	Voting Member Name	Role	Company
x	Todd Anselmi	Vice Chair (2023) At-Large (2026)	Idaho National Laboratory
x	Robert Becse	At-Large (2025)	Westinghouse Electric Company LLC
x	Robert Budnitz	At-Large (2026)	Lawrence Berkeley National Laboratory (retired)
x	Jennifer Call	At-Large (2024)	Tennessee Valley Authority
x	Brandon Chisholm	At-Large (2026)	Southern Company
	Michelle French	Ex-Officio	WECTEC
	Gale Hauck	Ex-Officio	Oak Ridge National Laboratory
x	Dennis Henneke	Ex-Officio	GE Hitachi
x	Mark Joseph	Ex-Officio	Navarro Research & Engineering
x	Robert Kalantari	At-Large (2025)	Engineering Planning & Management, Inc.
	Jean-Francois "Jef" Lucchini	Ex-Officio	Los Alamos National Laboratory
x	Carl Mazzola	Ex-Officio	Los Alamos National Laboratory
	Frances Pimentel	At-Large (2026)	Nuclear Energy Institute
x	Mehdi Reisi-Fard	At-Large (2025)	U.S. Nuclear Regulatory Commission
x	Andrew Smetana	Ex-Officio	Individual
x	Andrew Sowder	Chair (2023) At-Large (2026)	Electric Power Research Institute
x	Kent Welter	At-Large (2026)	NuScale Power
	Larry Wetzel	Ex-Officio	Individual
13	13/18 Votes = 73.22% Participation		
Attended	Nonvoting Member Name	Role	Company
x	Amir Afzali	Observer	Individual
x	Doug Bowen	Observer	Oak Ridge National Laboratory
x	Don Eggett	Observer	Eggett Consulting, LLC
x	George Flanagan	Observer	Individual
x	Ray George	Observer/Liaison	Institute of Nuclear Power Operations
x	N. Prasad Kadambi	RP3C Chair/ANSI Liaison	Kadambi Engineering Consultants
X	Mark Linn	Observer	Individual
x	Donald Spellman	Observer/ISO-NTAG Liaison	Individual
x	Robert Youngblood	Guest	Idaho National Laboratory

1. Welcome and Roll Call

SB Chair Andrew Sowder initiated the meeting. Members were welcomed. Roll call was taken, and a quorum was achieved.

2. Approval of Agenda

Andrew Sowder explained that a discussion of ANS-GS-30.1, *Integrating Risk and Performance Objectives into New Reactor Nuclear Safety Designs*, was taken off the agenda because the chair and vice chair of the relevant consensus committee were not able to participate in today's SB meeting. The agenda was approved as presented.

3. SB Chair Remarks

A. Post-Meeting Purpose

The purpose of today's "post-meeting" is to address items from the in-person SB meeting on November 14, 2023, which required further discussion.

B. Summary of Advanced Reactor Codes & Standards Collaborative (ARCSC) Workshop

The ARCSC held their annual workshop last Thursday. ARCSC is the standards development organization (SDO)-led Collaborative initiated under the North American Advanced Reactor Roadmap activity to support the standards needs of advanced reactor developers. The workshop discussed feedback from the ARCSC survey issued last September. The survey remains open to collect additional comments. The intent of the survey is to identify codes and standards needs for advanced reactors and to fill these gaps. The Collaborative is broader than ANS with participation from many SDOs. The workshop last week was successful. It was conducted as a hybrid meeting with the physical component held at Electric Power Research Institute's office in Washington, D.C. Over 200 individuals participated. The first session was focused on hearing from the International Atomic Energy Agency (IAEA), World Nuclear Association, and the SDO Convergence Board. The second session reviewed the ARCSC Charter, explained where ARCSC is in the roadmap process, and provided preliminary trends from the ARCSC survey. A session in the afternoon heard the perspectives of advanced reactor developers including Dennis Henneke for GE Hitachi. Overall, the workshop was a great starting point. It is expected that the survey will identify gaps for each SDO to address. For ANS, the action will fall to the Priority Task Group which Don Eggett offered to lead. The list of workshop participants and presentations will be made available once permissions have been given.

4. Protocols for ANS Standards



4_Related Policies.pdf

Amir Afzali explained that he asked for a discussion of the below two issues because he is trying to establish credibility by following protocols.

- A. Protocol for representing/participating ANS (either working groups or committees, but particularly committees) in meetings.

Afzali clarified that he is not talking about speaking at a meeting for yourself but speaking at a meeting to represent an ANS committee. He is looking for a set of values to be provided as guidance. Dennis Henneke recognized many different scenarios that require a different level of formality. He summarized the unwritten policy that the Joint Committee on Nuclear Risk Management (JCNRM) follows for Q&As at a meeting, statements of facts, status updates, presentations given on behalf of the JCNRM, formal comments/letters submitted on behalf of JCNRM, etc. Members were in agreement that presentations recognizing a committee's position in slides need approval of at least the relevant committee, not necessarily the SB. The use of a disclaimer to recognize that the information is preliminary or that the presenter's opinions do not represent the full committee's sentiments was discussed. ANS currently has two related policies – 1) B1 POLICY ON ISSUING COMMENTS ON BEHALF OF THE ANS STANDARDS COMMITTEE and 2) B2 POLICY ON SPEAKING FOR THE ANS STANDARDS COMMITTEE ON POLICY MATTERS (see the [embedded file for both policies](#) above). The policies were reviewed but were not felt to encompass all situations and need to be expanded. Afzali's offer to draft a straw-man proposal with assistance from Robert Budnitz and Dennis Henneke was accepted. The proposal should include a "disclaimer." The straw-man proposal and disclaimer will be provided to the Policy Task Group for review. Afzali will try to get the proposal completed by the next Policy Task Group meeting scheduled for December 22, 2023.

ACTION ITEM 12/2023-01: Amir Afzali to work with Dennis Henneke and Robert Budnitz to develop a straw-man proposal on speaking for an ANS committee and a "disclaimer" be shared with the Policy Task Group.

DUE DATE: December 21, 2023 (or as soon as possible)

- B. Protocol for compliance with ANS's position statements when developing and issuing standards. Afzali also asked to discuss compliance with Project Initiation Notification System (PINS) forms. He feels there should be a protocol to make sure that a standard in development meets both ANS Position Statements and the approved PINS. Sowder questions whether the Standards Committee, an independent organization, should be constrained by ANS Position Statements. He feels we are part of ANS but to some extent we need to be independent. Afzali feels it is a credibility issue if ANS standards are not consistent with ANS Position Statements, but he doesn't feel there needs to be another review level to ensure compliance. Afzali used ANS-20.2, *Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten-Salt Reactor Nuclear Power Plants*, as an example. The standard was initiated as a risk-informed, performance-based (RIPB) standard, but it is prescriptive and conflicts with ANS Position Statements. The language of the position statement says "if possible" giving Sowder the impression that there is flexibility as there may be a valid purpose for a deterministic standard. The ANS committee responsible for ANS Position Statements is the ANS Public Policy Committee which is chaired by Leah Parks.

The issue with drafts being consistent with approved PINS is a separate issue. The American National Standards Institute (ANSI) requires a new PINS when "what" is being covered in the scope or the stakeholders change. It is recognized that the scope of ANS-20.2 states that the standard will be RIPB. Sowder feels that a change to a PINS needs to be addressed at the consensus committee level. Going forward, Afzali would like for changes on PINS to be addressed in a standard way as part of the approval of a standard and would like every attempt to be made to comply with ANS Position Statements. Henneke has concerns that the PINS for ANS-20.2 doesn't match the standard as approved. The cart needs to be behind the horse. Sowder agrees that the PINS needs to be re-reviewed before the draft gets to the consensus committee. He suggested that compliance with PINS be discussed with both the Policy Task Group and the consensus committee chairs. One option as a check that drafts are consistent with PINS is to require subcommittee chairs to review the PINS and draft before the consensus committee ballot is issued. Either the PINS would need to be rewritten or the draft if inconsistency between the two documents is found.

ACTION ITEM 12/2023-02: Pat Schroeder to add a discussion of drafts being consistent with PINS to the next Policy Task Group and consensus committee chair meeting agendas.

DUE DATE: December 22 (for the Policy Task Group)

DUE DATE: January 25 (for the consensus committee chair meeting)

It was noted that ANS also has a Project Implementation Plan (PIP). Working groups are sent a request to complete the PIP once the PINS has been approved internally and sent to ANSI. The PIP includes an outline for the proposed standard and milestones for development.

5. Risk-informed, Performance-based Principles and Policy Committee (RP3C) Bylaws Update



5_Draft TOR for
RP3C_V1.docx

RP3C Chair Prasad Kadambi provided the embedded file and suggested that the RP3C Bylaws be retitled “Terms of Reference.” He provided a definition of “Terms of Reference” he found online. Terms of Reference define the purpose and structure of a project committee, meeting, negotiation, or any similar collection of people who have agreed to work together to accomplish a shared goal. Kadambi has worked with Robert Youngblood, Todd Anselmi, and Rani Franovich on the Terms of Reference based on RP3C’s 10 years of activities. Kadambi feels that “Terms of Reference” is more appropriate than Bylaws for RP3C. Dennis Henneke politely disagreed. He brought attention to the RP3C Bylaws because they weren’t being followed and feels that there needs to be formality that is upheld. Kadambi feels that the Bylaws aren’t working and that there is a disconnect between the Bylaws and what RP3C actually does. The term Bylaws seems too formal for an advisory committee. The Terms of Reference would be much shorter and simpler in the sense that it describes the RP3C as a body that reports to the SB. Todd Anselmi echoed Kadambi’s sentiment that Bylaws is a term for a committee that operates under its own rules, and he feels it makes sense to use a different term, not to change how we operate. Robert Youngblood added that he doesn’t feel strongly whether the Terms of Reference or Bylaws is used, but if you are giving advice, you need to know who the advice is coming from. Youngblood emphasized that RP3C’s role as an advisory committee is important to recognize.

Henneke is asking for the committee to follow rules like other committees including having a quorum for balloting, membership, terms for leadership, etc. He is not asking for RP3C to get into balance of interest or other processes required for consensus committees. Amir Afzali supported Henneke’s request for RP3C to follow documented procedures. Kadambi clarified that RP3C uses the ballot function as it is the most efficient way to collect comments on draft standards the committee reviews. The ballot function is not a formal approval. It is used only as a means to collect comments. ANS staff will make sure that this message is clarified in the future when the ballot function is used for review, not formal approval.

Afzali feels that RP3C being an advisory group doesn’t mean that they should not have protocols and a formal approach. Andrew Sowder clarified that RP3C is considered a special committee of the SB which allows flexibility in how it is run but recognizes the request and need to document certain activities. Policy A2, POLICY ON ANS STANDARDS COMMITTEES’ MEMBERSHIP AND RESPONSIBILITIES (p. 5 of the [Policy Manual](#)) addresses RP3C but doesn’t have guidance for all RP3C activities and balloting. Henneke specifically has concerns with the poor response on RP3C’s ballot of RP3C’s Guidance Document. A quorum was not met so the ballot was not valid. Kent Welter said that he has been involved on other advisory committees. These advisory groups formally balloted only on items where they felt a formal ballot had value and not on others. Welter feels that the SB needs to be specific what RP3C needs to formally ballot. Youngblood agreed that the RP3C Guidance Document is an example of an item that RP3C should

ballot formally. Youngblood has been wrestling with how to modify the Bylaws for over a year. Aside of the Guidance Document, we need to think carefully about what needs to be formally balloted and what does not.

Sowder asked Pat Schroeder to include an agenda item for the Policy Task Group to discuss the expectations for RP3C on formal balloting, membership, and participation. This may be included in the Policy Manual (possibly Sec. 3.5.1) or a separate document.

ACTION ITEM 12/2023-03: Pat Schoeder to add a discussion to the Policy Task Group meeting agenda to develop specific expectations for RP3C on balloting, membership, chair terms, etc.
DUE DATE: December 22, 2023

6. Harmonization of Structures, Systems, and Components (SSCs)



6_Spellman_ANS_Presentation_SSC_Classific

Donald Spellman presented the embedded file titled Approach to Harmonized Standards. He stated that there has been a lot of activities from the U.S. Nuclear Regulatory Commission and internationally. The issue had low activity until IAEA initiated work on harmonization of terms. The issue goes back to what the World Trade Organization calls the barriers to trade. Spellman's presentation is for information only with recognition that IAEA has an on-going activity that we should see in the near future. Andrew Sowder is not a formal member of the IAEA group addressing harmonization. IAEA's initiative is the Nuclear Harmonization and Standardization Initiative (NHSI). Dennis Henneke is involved with NHSI on behalf of GE Hitachi. Spellman offered to be ANS's representative in this effort. Henneke said that NHSI's current work is focusing on mechanical engineering standards which is why the American Society of Mechanical Engineers (ASME) is involved. For now, Henneke doesn't think that ANS needs to be engaged. The group will likely move on to civil/structural and electrical engineering standards soon. At some point, ANS should be a formal member once they are working on standards within ANS's scope. An ANS official liaison to NHSI's Working Group 2 would be appropriate at that time. This liaison relationship would need to go through Dr. Pekka Pyy with IAEA. Sowder will check with Dr. Pyy about ANS having a liaison role with NHSI's Working Group 2. ANS's current activities are focusing on classification of SSCs which is not being addressed by IAEA at this time.

ACTION ITEM 12/2023-04: Andrew Sowder to check with Dr. Pekka Pyy about ANS having a liaison role with NHSI's Working Group 2.
DUE DATE: March 1, 2024

7. Other Business

Andrew Sowder recognized that a response to JCNRM's letter on ANS-GS-30.1 would be forthcoming.

8. Review of Action Items from This Meeting

Action items assigned during the meeting were reviewed and acknowledged.


9. Adjournment

The meeting was adjourned.

Standards Board Action Item Report as of 12/4/23

Action Item	Description	Responsibility	Status/Comments
12/2023-01	Amir Afzali to work with Dennis Henneke and Robert Budnitz to develop a straw-man proposal on speaking for an ANS committee and a “disclaimer” be shared with the Policy Task Group. DUE DATE: December 21, 2023 (or as soon as possible)	Afzali, Henneke, Budnitz	OPEN
12/2023-02	Pat Schroeder to add a discussion of drafts being consistent with PINS to the next Policy Task Group and consensus committee chair meeting agendas. DUE DATE: December 22 (for the Policy Task Group) DUE DATE: January 25 (for the consensus committee chair meeting)	Schroeder	OPEN
12/2023-03	Pat Schoeder to add a discussion to the Policy Task Group meeting agenda to develop specific expectations for RP3C on balloting, membership, chair terms, etc. DUE DATE: December 22, 2023	Schroeder	OPEN
12/2023-04	Andrew Sowder to check with Dr. Pekka Pyy about ANS having a liaison role with NHSI’s Working Group 2. DUE DATE: March 1, 2024	Sowder	OPEN
11/2023-01	Pat Schroeder to check if/how the profile section on ANS Collaborate can capture the year a volunteer entered the workforce. DUE DATE: January 1, 2024	Schroeder	OPEN
11/2023-02	Andrew Sowder and Todd Anselmi to consider the appropriateness of chair role limits, in particular the RP3C chair role term limit, and possibly announcement of the opportunity to fulfill this role. DUE DATE: March 1, 2024	Sowder, Anselmi	OPEN
11/2023-03	Donald Eggett to provide Pat Schroeder the notes from the September 2023 NAARR Implementation Board meeting to distribute to the SB. DUE DATE: December 1, 2023	Eggett	OPEN
11/2023-04	Policy Task Group to review the revised Standards Committee Strategic Plan before sending to the SB for approval ballot. DUE DATE: March 1, 2024	Policy Task Grop	OPEN
11/2023-05	Mehdi Reisi-Fard to follow up on feedback from Michelle Sampson, or whoever was assigned, on NRC’s review of RP3C’s RIPB Guidance Document provided by Prasad Kadambi. DUE DATE: March 1, 2024	Reisi-Fard	OPEN
11/2023-06	Prasad Kadambi to communicate the recommendation for a standard to improve Part 50.69 with performance-based methods to LLWRCC and JCNRM. DUE DATE: March 1, 2024	Kadambi	OPEN
11/2023-07	Pat Schroeder to follow up with ANSI to confirm Prasad Kadambi’s membership on the ANSI National Policy Advisory Group. DUE DATE: November 21, 2023	Schroeder	OPEN
11/2023-08	Brandon Chisholm to work with Prasad Kadambi to frame the ask for help from associate members to create a video from training material and CoP presentations; Kathy Murdoch to create a site on	Chisholm, Kadambi	OPEN

	ANS Collaborate for associate members to use for collaboration. DUE DATE: January 1, 2024		
11/2023-09	Pat Schroeder to add a discussion on RP3C's Bylaws to the SB post meeting agenda. DUE DATE: December 1, 2023	Schroeder	OPEN
11/2023-10	Jef Lucchini to recommend that the ANS-57.2 and ANS-57.9 working groups contact RP3C for support and report back to Prasad Kadambi. DUE DATE: March , 2023	Lucchini	OPEN
11/2023-11	Pat Schroeder to include RP3C Chair Prasad Kadambi in the consensus committee chair quarterly meetings. DUE DATE: January 1, 2024	Schroeder	OPEN
11/2023-12	Prasad Kadambi and Mark Joseph to discuss using RIPB methods in ANS-2.36, Accident Analysis for Aircraft Crash into Hazardous Facilities, offline. DUE DATE: March 1, 2024 (ongoing)	Kadambi, Joseph	OPEN
11/2023-13	Larry Wetzel to provide the Glossary Review Team NCSCC's feedback on preferred ANS-8 terms. DUE DATE: June 1, 2024	Wetzel	OPEN
11/2023-14	Pat Schroeder to schedule a Policy Task Group meeting. DUE DATE: February 1, 2024	Schroeder	OPEN
11/2023-15	Andrew Sowder and Todd Anselmi to discuss the formation of the EAC with the ANS Executive Committee when discussing the Standards Committee Strategic Plan and report back to the SB. DUE DATE: March 1, 2024	Sowder, Anselmi	OPEN
11/2023-16	The SB to revisit the formation of the EAC in a year. DUE DATE: November 1, 2024	Standards Board	OPEN
11/2023-17	Pat Schroeder to work with Greg Hudson and Dennis Henneke to develop a recommended format on tabulation/identification of requirements in ANS Standards DUE DATE: June 1, 2024	Hudson, Henneke, Schroeder	OPEN
11/2023-18	Pat Schroeder to check with the ANS Meetings Department to see if there is a set time for provided coffee breaks to align the agenda. DUE DATE: December 1, 2023	Schroeder	OPEN
11/2023(P M)-01	Pat Schroeder to add 1) protocol for representing/participating ANS (either working groups or committees, but particularly committees) in meetings, 2) process for selection of and length of time for serving as a committee's chairperson, and 3) protocol for compliance with ANS's position statements when developing and issuing standards to the November 14, 2023, Standards Board agenda. DUE DATE: December 1, 2023	Schroeder	OPEN Item #2 has been added to the 11/14/23 agenda. Items #1 and #3 will be added to the post-meeting agenda so that Afzali can participate.
11/2023(P M)-04	Todd Anselmi to revise the Standards Committee Strategic Plan and provide to the SB prior to the SB June 2024 meeting. DUE DATE: June 1, 2024	Anselmi	OPEN Will discuss with the Policy Task Group by next meeting. Action amended to June 2024 meeting.
6/2023-02	Todd Anselmi with support from Pat Schroeder to update SMART Matrix actions to recognize those that have been completed. DUE DATE: On hold until SC Plan is approved	Anselmi, Schroeder	On Hold The SMART Matrix will be reconfigured to reflect the revision to the SC Strategic Plan once completed.
6/2023-03	Todd Anselmi to lead the 2024 Standards Service Award Selection Committee along with Larry Wetzel, Jef Lucchini, Gale Hauck, and Dennis Henneke.	Anselmi, Hauck, Henneke,	OPEN A notice will be issued early January 2024 to announce the

	DUE DATE: May 1, 2024	Lucchini, Wetzel	opening of nominations through 3/1/24.
6/2023-04	Pat Schroeder to explore the establishment of a formal program with universities for limited access to ANS standards including the possibility of “hosting” or having a reseller “host” a platform with e-access to students with ANS Publications Director, John Fabian. DUE DATE: November 1, 2024	Schroeder	OPEN IT support is needed to establish/build a platform. Fabian (ANS Pubs Director) is working with ANS IT.
6/2023-05	Mark Linn (lead), Brandon Chisholm, Medhi Resi-Fard, Donald Spellman, and Robert Kalantari, to form an ad hoc committee to evaluate how to improve the Standards Committee Glossary of Terms and Definitions which should include consideration of a new glossary with one standardize term/definition. Jim August and Garrett Smith to be invited as guests. DUE DATE: March 1, 2024	Linn, Chisholm, Kalantari Resi-Fard, Spellman (Guests: August & Smith)	OPEN Bi-weekly meetings have been held for the last few months. Trying to figure out a simple criteria that highlights concerns with the Glossary meeting its intended purpose. Linn will engage L. Wetzel.
6/2023-06	Prasad Kadambi and Michelle French to discuss what help is needed from RP3C for LLWRCC. DUE DATE: March 1, 2024	Kadambi, French	OPEN
6/2023-07	Pat Schroeder to facilitate a group discussion on incorporating RIPB methods in ANS-19.13, <i>Initial Fuel Loading and Startup Tests for FOAK Advanced Reactors</i> , if offline discussion between Robert Youngblood and ANS-19.13 Working Group Chair Sam Bays needs additional discussion. Individuals to be included in the group meeting if needed are Andrew Smetana, Robert Budnitz, and Chip Martin. DUE DATE: June 1, 2024	Schroeder	OPEN No request was made. It is presumed that discussions between Youngblood and Bays were sufficient. Schroeder to confirm status with Youngblood.
6/2023-13	Donald Spellman to reach out to IEEE about how they handle BOI classification of consultants. DUE DATE: June 1, 2024	Spellman	OPEN Schroeder to check with Spellman on the status of this action.
6/2023-14	Pat Schroeder to provide Andrew Sowder with all background information about ANSI’s 2022 balance of interest category change. DUE DATE: December 1, 2023	Schroeder	OPEN Sent 6/14/23  ANSI Essential Requirements & Mis Schroeder to resend Sowder the background information.
6/2023-15	Don Eggett to follow up on organization’s copyright infringing on ANS documentation. (Note: This is a follow up action to ACTION ITEM 6/2021-17.) DUE DATE: March 1, 2024	Eggett	OPEN Schroeder has asked Fabian to check with the ANS attorney.
6/2023-16	Andrew Sowder to recruit liaisons from the Institute of Electrical and Electronics Engineers, Health Physics Society, and National Council on Radiation Protection and Measurements liaison for the SB. (NOTE: ACTION ITEM 11/2022-08 to recruit an IEEE liaison was incorporated.) DUE DATE: June 1, 2024	Sowder	OPEN Sowder is working on an HPS liaison; could use help on recruiting IEEE liaison related to I&C issues. Eggett suggested for Sowder to contact S. Arndt and/or R. Steinman for help identifying an IEEE liaison.
6/2023-17	Prasad Kadambi to follow up with Garrett Smith for details on DOE’s use of ANSI/ANS-2.26-2004 (R2021), Categorization of Nuclear Facility Structures, Systems, and Components for Seismic	Kadambi	OPEN

	Design. DUE DATE: June 1, 2024		
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