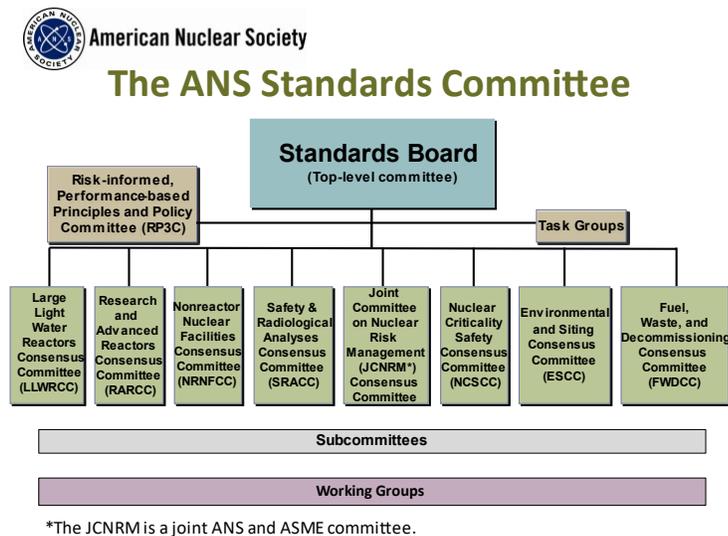




Summary of Standards Committee Member Feedback Survey 2020/2021

Background: A survey was issued to all American Nuclear Society (ANS) Standards Committee members. This includes all persons engaged in standards development for the Society (i.e., the Standards Board, its consensus committees, special committees, subcommittees, and working groups). The purpose of the survey was to acquire realistic information on volunteer time commitment, committee meetings, and to hear from our Standards Committee members on perceived benefits or anything else they wanted to share.

The survey confirmed that participation hours are highly variable at all committee levels. For this reason, the average number of hours spent per month as well as the lowest and highest reported hours are provided in the summary for each committee level. The Standards Committee’s high-level organizational chart and a brief description of each committee level precede the survey summary to help give perspective to the work of each group.



Standards Board: responsible for policy and procedural direction for the standards activities of the Society. The Standards Board oversees the activities of the Standards Committee.

Consensus committees: responsible for formal approval of voluntary consensus standards and management direction to its subcommittees and working groups.

Subcommittees: responsible for guiding working groups and performing preliminary reviews of voluntary consensus standards.

Working groups: responsible for writing voluntary consensus standards. It all starts here!

Standards Board

Time Commitment

Committee level	# Responses	Low Hours per month	High Hours per month	Average Hours per month
Leadership NOTE: Hours not discernable for chair and vice chair roles.	6	4	20	13.8
Member	2	4	8	6

Additional Feedback

- I believe potential volunteers to the Standards Board need to have been/be involved in consensus committee work or using/generating standards in the industry in order to have enough experience and background to bring to the Standards Board.



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- Meetings need to be focused on major issues. Material reviews should be done outside of meeting time and only address problem areas in meetings.
- When chair, I was constantly reminded of how ineffective the Standards Board is, but ANS needs it.
- Highest level of professional development and overall standards activities worldwide.

Personal Benefit Received

- I am learning a lot about the world of standards in our industry, and I am hopeful this experience will benefit me in the future... My participation in the ANS standards program does not benefit my company (National Laboratory) at this time.
- Professional development and professional reputation both personally and for corporate.
- Keeps me busy with important activity.
- This relationship provides an opportunity for the Nuclear Energy Institute to remain aligned with the standards organization and to keep abreast of any changes to standards or new developments in standards.
- Although on life support, I felt like I kept it going even though not thriving.
- Most responsible position of the Standards Committee.

Consensus Committees

Time Commitment

Committee level	# Responses	Low Hours per month	High Hours per month	Average Hours per month
Chair	4	8	40	20.75
Member NOTE: Hours not discernable for vice chair vs. member roles.	19	.5	6	3.4

Additional Feedback

- It was great to work with a group of people from different companies in developing fuel, waste, and decommissioning standards that will be used throughout the world.
- Like above for working group, but focus is broader, more about consistencies and processes. Also look at the overall working groups, where they are at, and how we fit into the broader standards effort.
- Highly recommend inhouse or industry subject matter expert contacts or other networks to provide in-depth reviews of proposed standards or revision for topics that are outside of a volunteer's expertise.
- Very rewarding volunteer experience.
- No one has time to participate but find the time anyway to be as involved as you can.
- I certainly need to spend more time to be more efficient in my consensus committee role.
- Workload depends on number of standards being acted upon.
- Need to get rid of the dead wood and add active members.
- Wonderfully rewarding experience.
- It is fulfilling but frustrating work.
- Maintain input to consensus committee final results on the way to the Standards Board.



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Personal Benefit Received

- Benefit to me personally: met and became friends with many fuel, waste, and decommissioning experts throughout the world.
- Benefit to my company: provided my company’s viewpoints for updates/new fuel, waste, and decommissioning standards that will be used throughout the world.
- Much the same as above, but I gather you get a little more professional credit from those that see it on a resume but don’t really know the system and think it sounds even more impressive.
- Received many jobs through contacts made.
- It helps with understanding the big picture of how the standards are developed and work together; there are professional networking opportunities as well.
- I am learning a lot about the world of standards in our industry, and I am hopeful this experience will benefit me in the future.
- My participation in the ANS standards program does not benefit my company (National Laboratory) at this time.
- The topic of this committee is directly relevant to the activities of the research reactor I am responsible for.
- There is no better way to participate and facilitate outcomes on a national level than serving on a working group.
- Professional development and professional reputation both personally and for corporate.
- Committee work has directly supported my work on a daily basis.
- Provides benefit to my employer with ANS standards development and status updates.
- Provides benefit to me with HPS continuing education credits.
- Keeping abreast of recent developments in the area.
- Professional engagement is enriching.
- Satisfaction of contributing professional experience with the community.
- My participation ensures that the NRC can stay aware of standard developments and assist in seeing the best use of standards in NRC regulations, regulatory guides, and staff guidance.
- We continually refer to standards in our reactor development and operations.
- Participation creates ownership of that standard.
- Currently a national lab employee and this allows for interaction with other DOE contractors and DOE headquarters personnel that would otherwise have to be sought out rather than being more readily made available as a result of working group participation.

Subcommittees

Time Commitment

Committee level	# Responses	Low Hours per month	High Hours per month	Average Hours per month
Chair	6	2	10	4.8
Member	7	1	8	3

Additional Feedback

- It was great to work with a group of people from different companies in developing nuclear criticality safety standards that will be used throughout the world.
- ANS-19 could use more participants, especially to support the development of new standards.
- Any level of volunteer time is great.
- Good sense of community.



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Personal Benefit Received

- Benefit to me personally: met and became friends with many nuclear criticality safety experts throughout the world.
- Benefit to my company: provided my company’s viewpoints for updates/new nuclear criticality safety standards.
- I believe there is much more work involved when it comes to creating new standards from scratch.
- I haven’t participated on the development of a new standard but realize the amount of effort would be much greater.
- The work to redo ANS-19.10 is quite extensive compared to other benchmarks, but I have only watched that one as an observer and am not directly involved in its rework.
- My participation in standards development has opened opportunities in the consulting world I otherwise would not have had.
- Professional development and professional reputation both personally and for corporate.
- Committee work has directly supported my work on a daily basis.
- Recognition as a subject matter expert and providing recognition that your company is active in the area of nuclear criticality safety.
- Provides important input to maintain proper conduct of our business.
- Keeping abreast of recent developments in reactor physics.
- This has been providing a much broader understanding of all the standards and an active role in shaping the standards.
- We continually refer to standards in our reactor development and operations.
- Participation creates ownership of that standard.

Working Group

NOTE: Some individuals are both a chair and member. In this instance, they may be represented more than once in the below if information was discernable.

Time Commitment

Committee level	# Responses	Low Hours per month	High Hours per month	Average Hours per month
Chair	17	2	20	9
Member	39	1	60	6

On average, how often does your working group(s) hold a physical meeting?

Low: 0/year

High: 12/year

Average: 1/year

The vast majority of working groups have conducted all work via remote and electronic means. Most ANS-8 (nuclear criticality safety) working groups meet during ANS annual and winter meetings when actively pursuing a revision. Several working groups held a physical kick-off meeting.



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If applicable, is a remote option available when physical meetings are held?

About 80% of groups holding physical meetings provided a remote option for participating.

On average, how often does your working group(s) hold a virtual meeting or teleconference?

Low: 0

High: 50/year (weekly)

Average: 14.6/year

Several working groups reported that they hold nearly weekly meetings at their busiest.

Additional Feedback

- Any level of volunteer time is great.
- We need people who are committed to revising old standards and creating new standards.
- The other members depend on you finishing the task in this all-volunteer group.
- Getting the Project Initiation Notification System (PINS) form correct to start the revision (or to exhume a withdrawn standard) was the most frustrating and difficult part of the process followed by tracking progress once the revision was submitted.
- Writers and chair must dedicate more time than reviewers (e.g., 8/month or 24 hrs./quarter).
- Volunteering as a reviewer is a good way to move up the learning curve on a topic.
- As a volunteer, it takes self-motivation for making progress. Expectations about progress need shifted to years versus immediate.
- Perspectives need to be open to account for variable size sites and different approaches/needs.
- Everyone understands that this is a volunteer effort, and most of us have full-time jobs.
- It was great to work with a group of people from different companies in developing nuclear criticality safety standards that will be used throughout the world.
- Consistent participation of working group members is vital; commitment is important.
- Have a good plan.
- We utilize an annual face-to-face meeting associated with the ANS annual meeting/location to collaborate around a table on draft text development. We also use that opportunity to socialize together over a nice dinner.
- Having an annual face-to-face imposes some accountability to continue making progress on the standard.
- Most time is spent on research and prep for meetings.
- I believe there is much more work involved when it comes to creating new standards from scratch.
- The work to revise a standard can be quite different from one standard to another.
- As a working group member you can contribute to a diverse range of technical areas.
- Be proactive about helping as participation will broaden your technical knowledge base.
- The workflow is uneven, with initial activities taking up significant time but then a lull as the standard gets multiple reviews and then maybe one big push at the end.
- As a new member, I mostly just review what is posted by the senior members and do additional research to inform my feedback to the group.
- Helpful to have corporate sponsorship.
- I would assume a writer (as opposed to a reviewer) would have more time involvement on a monthly basis.
- There is a high dispersion in dedication between the first months (development of the first draft – 16 hours/month during three/four months) and the current situation (revision of versions – 2 hours/month).



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- I've learned a lot.
- Patience and persistence are good to have.
- All members are knowledgeable in the technical area. A few members are assigned to coordinate member input or comments into a draft standard. Most member participation is review and comment.
- It is fulfilling but frustrating work.
- It is a good opportunity to meet and learn from experts and network.
- It really is about how much you want to put into it. New standards or updating/modernizing an older standard takes a lot more upfront time.
- Great opportunity to make connections in the field and know you are working towards a common goal. Generally, in any group, there will be 2 or 3 members that the subject matter is their passion. They will put in considerably more hours per month.

Personal Benefit Received

- Standard work has directly supported my work on a daily basis.
- Excellent professional growth and networking opportunity as an individual and making others aware your company is active in ANS and nuclear criticality safety.
- My company has a direct representative on an ANS working group. That's a big benefit.
- I received a copy of the standard at no charge.
- My company was able to reference the revised standard in RFPs versus writing out the technical requirements.
- Expand personal technical expertise.
- Cross-disciplinary knowledge gained from interacting with a diverse, professional working group. Experience as chair to include on resume. Time for literature searches on latest environmental findings, technology developments, and research applications.
- Learn industrial standard development and maintain professional society connection.
- Team building, coaching, dealing with nuclear industry leading experts in the world, many of whom have held high office as directors, chief executives, managers, presidents, vice presidents, etc.
- Personally, I find a lot of satisfaction in supporting these efforts both on the professional side and through the interactions with others across the industry.
- Those interactions bring new perspectives and work practices that can be very beneficial to your own site.
- While changes are not immediate, the benefit is knowing that you can improve/impact future activities and that you can become an expert on an aspect of a chosen field. This also is very beneficial to companies from two perspectives: to see changes coming well before they come and to help shape those changes before, they are required.
- Benefit to me personally: met and became friends with many nuclear criticality safety experts throughout the world.
- Benefit to my company: provided my company's viewpoints for updates/new nuclear criticality safety standards.
- High degree of satisfaction on completion. Important contribution to industry to maintain best practices. Significant professional and personal development is obtained.
- I get some acknowledgement in my annual review for the visibility created by committee participation. My work supports the time and travel for 1 physical meeting/year.
- Enhanced knowledge and skills.
- Professional development and knowledge currency.



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- My prior company was an engineering services provider, and the company name does get recognized to show support. Currently a national lab employee and this allows for interaction with other DOE contractors and DOE headquarters personnel that would otherwise have to be sought out rather than being more readily made available as a result of the working group participation.
- Keep up with new development in the nuclear safety and related work.
- Standards are utilized extensively in industry and are often referred to when government laboratories support industrial partnerships and reactor licensing. Representation of the laboratory in the development and maintenance of the ANS-19 standards is viewed positively from my employer because of their integral role in the nuclear community. Personally, I enjoy meeting with other experts to discuss the purpose of existing standards and ensure that they best represent the needs of the current and future nuclear community. I find participation in standards development to be one of the more rewarding components of the annual and winter meeting ANS conferences.
- Insight into various member perspectives.
- Learning from and meeting others with various backgrounds.
- It helps with understanding the language and reasoning behind the way the standards exist, and also it provides technical knowledge growth.
- The topic of the working groups is directly relevant to the activities of the research reactor I am responsible for. There is no better way to participate and facilitate outcomes on a national level than serving on a working group.
- For this particular standard, our company had implemented an Integrated Safety Analyses for its license application and hence, taking lessons learned from this experience to inform the standard-making helps ensure our approach meets the standard (and hence no significant re-work).
- I benefit from the networking opportunities that I have had by being active in my standards committee.
- Great experience and have some lifelong friends for 40 years.
- Professional development and professional reputation both personally and for corporate.
- Learning opportunity for me. Personal development opportunity.
- Personally: interaction with a group of high degree of experienced professionals with implies the clarification of my own expertise.
- Company: the reference to the participation in this group has been used in expertise/curriculum section in some offers.
- Without this standard getting done, industry will have no guidance in this area and NRC will not have input from industry for regulatory guides.
- I appreciate the opportunity to "give back" in a meaningful way.
- My participation has helped keep the NRC informed of the issues facing the molten salt reactor community.
- Personal satisfaction for contributing to a safer industry.
- As a former NRC employee, endorsement of consensus standards in NRC guidance is desirable.
- Company benefits from my knowledge of trends, new requirements, contacts, etc.
- Makes me feel that I can make a difference.
- Get more understand with the needs for simulator.
- I have met some new, very sharp people.
- It has given me an opportunity to work with a standard revision, transition from an associate member to member, and see the approval and publication of the revision.
- I have learned a lot under the mentorship of more senior members of a working group.
- Supporting the development of standards helps staff to network and understand what is meant by the standards at a much deeper level than the written document.
- Service to the profession, familiarity with the standards.



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- My company and I benefited from first-hand knowledge of the bases for decisions that were made.
- When I started on this standard, I was new to the industry, and it's been a great way to get to know peers. It seems to be who you know sometimes... I have my current role because of someone I worked with on this standard.
- Get the opportunity to help shape the standards for a new reactor design, will help in the future when relevant regulation is needed.
- It definitely helped both me and my company to have a firsthand understanding of the standard. It was also helpful to have a voice in the development of the standard.
- It doesn't take long to figure out who the real subject matter experts are within a particular group. This broadens your network of experts when you become responsible for solving a problem in your workplace.
- Keeping abreast of recent developments in the area.
- Developing the standard was a rewarding experience. We had an excellent working group that really put the effort out. Personally, my participation certainly was a boost to my reputation in the seismic hazards community. Look forward to the next revision.