



PROJECT COMMITTEES GUIDE TO PASA

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PC'S GUIDE TO COMPLIANCE WITH PASA

The purpose of this guide is to provide examples of ways to comply with [Procedures for ASHRAE Standards Actions \(PASA\)](#). It is not intended to be all inclusive and cover every scenario a project committee (PC) will encounter but to provide guidance on the most frequently asked questions. This document is meant to evolve. PASA is ASHRAE's contract with ANSI for the development of standards and must always be followed. To assist PC's, [Appendix 1](#) is a summary of all the major topics that include the PASA Rule, a general description of the rule, approval requirements (if applicable), and links to the available forms, templates, and training materials. If the answer isn't provided in this document, then please contact the SPLS Liaison or ASHRAE Staff (standards.section@ashrae.org).

ASHRAE CODE OF ETHICS

All participants in ASHRAE standards development, whether members of ASHRAE or not, agree to follow the ASHRAE Code of Ethics. The ASHRAE Code of Ethics stipulates the code of conduct or behavior governing an individual or group, such as a committee, that is operating on ASHRAE's behalf. The Code of Ethics should be reviewed by all members of a project committee, as a violation of the code is grounds for removal from a PC. A training module titled PC Chair's Training: Ethics, Bias and Conflict of Interest is available for use and provides guidance on following the Code of Ethics. It is recommended that the link to the Code (below) be included on all PC agendas. The link for training may be included as well especially if the committee is new and/or has a lot of members who are new to ASHRAE standards and guideline development.

- a) [ASHRAE Code of Ethics](#)
- b) [PC Chairs Training: Ethics, Bias and Conflict of Interest](#)

GUIDE TO DEVELOPMENT OF ASHRAE STANDARDS and GUIDELINES

Overview of the Process of Publishing a Standard or Guideline

The overall process of getting a new standard or guideline published requires completion of several steps. This document will help the project committee (PC) meet the requirements of PASA as it develops its standards, guidelines or portion thereof. Depending on the type of document and the subject matter, some of the details of completing each step may be different, and these differences are indicated where appropriate in this guide. The goal of the PC is to publish the standard, guideline or portion thereof. The steps to publication are highlighted below and will be discussed in detail later in the guide.

Steps to Publication

1. Propose a project by drafting a Title, Purpose and Scope (TPS)
2. Identify project committee (PC) members and get them approved, including a chair
3. Schedule meetings and draft content for a new document or an addendum for documents on continuous maintenance
 - a. See "[Working Drafts and Public Review Drafts](#)" for additional guidance



4. Vote to recommend publication public review (PPR)
5. Respond to public review comments
6. Repeat steps 4 and 5 as necessary
7. Vote to recommend publication
8. Post Publication Items

PROPOSING THE DEVELOPMENT OF A NEW STANDARD OR GUIDELINE – TITLE, PURPOSE AND SCOPE

Standards Committee Documents

ASHRAE develops methods of test standards, design standards, protocol standards, rating standards and guidelines in the field of heating, refrigeration, air conditioning and ventilation and the allied arts and sciences. Anyone, ASHRAE member/Non-member or TC/TG/TRG may request the development of a new standard or guideline. When submitting a request there will need to be a title, purpose, and scope (TPS), a recommended Chair (ASHRAE member) and a list of at least four potential voting members. This information is submitted on the [Form for Proposing a Standard or Guideline](#).

How Do I Write a TPS?

It is very important that the title, purpose and scope (TPS) be written concisely. The word “standard” or “guideline” should generally not be used in the title. Definitions, references to published documents and “foreword” type material should not be included in the purpose or scope. Present tense, active voice should be used, as if the document were already written.

The project’s purpose statement (section 1) describes in general terms what the proposed standard or guideline accomplishes. The TPS of existing ASHRAE standards and guideline ([link here](#)) should be reviewed to avoid duplication and overlap. The scope (section 2) describes what is included in or covered by the standard or guideline. Scope subsections are numbered only when more than one is needed (e.g., 2.1, 2.2). Section headings should be uppercase and bolded. Section and subsection numbers should also be bolded. The [Procedures for Requesting a New Standard or Guideline](#) and the [Form for Proposing a Standard or Guideline](#) are tools for submitting new requests. (See [Appendix 1](#) for direct links.) See a sample of a draft Title Purpose and Scope in [Appendix 2](#).

Will My Proposal Be Approved and Should it be a Standard or Guideline?

When deciding whether or not to propose the development of new project and whether that request should be a standard or guideline the submitters should ask themselves the following questions:

- a) Can consensus of directly and materially interested parties be achieved?
- b) Can knowledgeable users, working independently, obtain similar results when demonstrating compliance with the requirements?
- c) Can a third party use the document to determine compliance?
- d) Can the document be written in mandatory language (i.e., using the word “shall” rather than “should”)?

If the answer is no to any of these questions, then the proposal should be for a guideline.



It is also important to note that if a research project needs to be completed before the work on the standard or guideline can be done then the request for the development of a new standard or guideline should not be submitted until the research is complete.

How are Requests for New TPSs evaluated?

Proposals for new projects are first submitted to the Policy, Planning and Interpretation Subcommittee (PPIS) to consider the need, anticipated use, ASHRAE expertise, ASHRAE responsibility, and availability of information for development of the standard or guideline. PPIS will consider feedback and input from the appropriate ASHRAE Technical Committee (TC). When determining the need for a new standard or guideline PPIS considers the following:

- a) the purpose and scope of the document,
- b) whether there is sufficient need,
- c) the potential impact associated with the creation of the document,
- d) an investigation of other related standards/guidelines in the area,
- e) whether the issue requires a new document or if the issue can be addressed through revision of an existing document,
- f) who or what group needs and will use the standard/guideline, and the consequences of not providing one,
- g) whether there are any known negatives associated with the document being proposed,
- h) if another group can produce the document more effectively, and
- i) the interest of ASHRAE members and committees.

APPROVAL OF ASHRAE (ONLY) STANDARDS

Obtaining an ANSI (American National Standards Institute) designation for your standard offers a multitude of advantages. Foremost, it grants immediate recognition and credibility, as ANSI is globally esteemed for its rigorous standards development and accreditation processes. This recognition not only enhances trust among stakeholders but also facilitates market access, as ANSI standards are often adopted by regulatory bodies and industry associations. By adhering to ANSI guidelines, organizations mitigate risks associated with product performance and safety, while also gaining a competitive edge in the marketplace. Overall, an ANSI designation signifies a commitment to quality, reliability, and adherence to industry best practices, positioning standards-holders as leaders in their respective fields. This is the preferred path.

If you opt to not pursue the ANSI/ASHRAE path, you have the option of following an ASHRAE only path. The Standards Committee is responsible for the establishment of project committees that are approved as ASHRAE. To gain approval as an ASHRAE standard, the request must fulfill specific criteria. The submitter must complete the [Form for Proposing a Standard or Guideline](#). A project need and work plan shall be submitted. Justification for working outside of the ANSI/ASHRAE path must be clearly stated. There shall be financial resources available to support the development of the standard. The project committee shall be balanced. A call for members shall be issued upon the approval of the project committee. The project committee shall adhere to the rules stipulated in PASA Sections 7.4.1 – 7.4.3. The public review comment period for ASHRAE standards shall be up to 45 days. All comments to the public review drafts shall be submitted electronically via the online comment database. An exception to this rule may be granted by the MOS if the commenter can demonstrate that he/she does not have ready access to the internet. The PC Chair or his/her designee shall submit responses to commenters electronically via the OSR, or in special cases, in the medium specified by MOS. Public Review



Comments received during open public review shall be reported to all members of the PC. Prompt consideration shall be given to all public review comments.

An effort to resolve all negative public review comments should be made, but each negative commenter shall be advised in writing (including electronic communication) of the disposition of the objections and reasons therefor. Any substantive changes in the draft must be approved and voted on by the PC for publication public review. (See **substantive change** in PASA [Annex A](#)). The PC may consider any public review comments received after the close of the public review period or shall consider them as a new proposal.

ASHRAE standards shall be exempt from the appeals process.

SEEKING ANSI DESIGNATION FOR PUBLISHED ASHRAE (ONLY) STANDARDS

An ANSI designation may be sought for a published ASHRAE (only) standard. The cognizant standard project committee or technical committee will vote to revise the published standard as a proposed American National Standard (ANS); this proposal for revision will be evaluated by the Policy, Planning and Interpretation Subcommittee (PPIS), Standards Committee, and Technology Council. If approved, a Project Initiation Notification System (PINS) announcement will be submitted to ANSI; the approved Title, Purpose, and Scope (TPS) of the standard will also be sent out for a 30-day public review and comment. From this point forward, the process for revision of an ANSI/ASHRAE standard (as governed by PASA) will be followed.

IDENTIFYING PROJECT COMMITTEE MEMBERS AND CHAIR

The TPS and Request for A PC is Approved. What's Next?

Congratulations! Now the fun begins. The Project Committee will be assigned a member of the Standards Project Liaison Subcommittee (SPLS) to help guide the process from membership to final publication. While that is being done a Call for Members will be issued and the Standards Committee approved TPS will go out for a 30-day public review and comment. While that is going on the proposed Chair will want to start considering the project committee make up.

PROJECT COMMITTEE FORMATION AND MEMBERSHIP (See PASA 4.3)

Role of the Chair for Standard/Guideline PCs (SPC/GPC) and Standing Standard/Guideline PCs (SSPC/SGPC) (See PASA 4.3.5)

The Chair is responsible for the organization and functioning of the committee. A Chair needs to be an ASHRAE member. The Chair isn't to take on every task and finding committee members that will help is important. Remember its best to delegate. Typically, a Chair will:

- a) review membership applications and make membership recommendations to SPLS within twelve months of project approval;
- b) prepare the work plan that sets out targets for milestones;
- c) appoint ad hoc working groups or subcommittees whenever necessary to carry out the committee work;



- d) prepare agendas for the meetings;
- e) preside over all the meetings of the committee;
- f) make sure minutes are prepared and distributed to the committee, the SPLS Liaison, and ASHRAE Staff;
- g) lead the project committee so that it makes steady progress and meets the targets indicated in the work plan;
- h) vote only to break a tie; and
- i) submit paperwork for publication public review and final publication approval.

Role of Subcommittees (PASA 4.3.4)

If used, Subcommittees are formed by the PC Chair. The Subcommittee is typically responsible for tasks agreed upon by the Project Committee. This can include managing addenda, appendices and comment responses related to the development of the standard or guideline. Or in cases where an SSPC manages multiple documents, a Subcommittee may be responsible for a complete standard or guideline. All Subcommittee actions related to the standard or guideline need to be submitted as recommendations for action by the Project Committee. The PC chair appoints the subcommittee members from the PC membership and the Subcommittee Chair. The Subcommittee Chair must be approved by SPLS.

Role of Ad Hoc Groups

Ad hoc groups are informal groups formed by the PC Chair for specific actions and are dissolved when the action is completed, and a report and recommendation(s) is submitted to the PC Chair. For example, Ad-Hoc Groups could be asked to study how a specific technology or regulatory trend may influence the standard or guideline or may be asked to attempt to work with a few individuals to develop a consensus proposal to a committee. In another example, the Ad-Hoc Group may be tasked with researching a given public review comment.

To form the Ad hoc group the PC Chair invites volunteers and typically appoints an individual from the PC membership to coordinate the Ad-Hoc Group activity. For more information, please refer to the *Working Draft and Public Review Draft* and *Designated Reviewer* sections when considering membership roster and distribution of ASHRAE copyrighted material.

It's recommended that the PC Chair or his/her designee maintain a list of tasks assigned to Ad-Hoc Groups and publish that information on their meeting agendas and minutes.

Role of the Vice Chair (See PASA 4.3.5)

While a Chair is not required to appoint a Vice Chair it is recommended because it automatically provides a person to fill the Chair's role in the event the Chair can't attend a meeting. The Chair may recommend approval of a Vice Chair, which must be approved by SPLS. The Vice Chair assumes the duties of the Chair when the Chair is unable to serve at any meeting of the PC. A Vice Chair is an ASHRAE member but not necessarily a voting member of the PC. When a Chair's term expires or if he or she resigns or is otherwise relieved of responsibility, the lead Vice Chair (if there is more than one) becomes the Acting Chair and is normally approved as the Chair at the next Standards Committee meeting.

PC Secretary (See PASA 4.3.5)

It is recommended that the Chair appoint a member of the PC to be the recording Secretary. The Secretary would be responsible for drafting and maintaining the minutes, including voting records. The Secretary can also be responsible for maintaining the latest version of the draft standard or guideline.



The assignment of Secretary does not need any approvals, the Chair just needs to notify ASHRAE staff for it be included on the PC roster.

Members (See PASA 4.3.6)

The Chair makes recommendations to Standards Project Liaison Subcommittee as to who should be appointed to the PC and in what capacity (see membership types below). It is important to submit roster recommendations within 12 months of project approval. Failure to submit recommendations may result in the project being discontinued. If help is needed in finding members the Chair should reach out to the SPLS Liaison and/or Standards staff for additional assistance.

Most members are appointed as “individual members.” In some cases, however, an organizational member might be appointed to represent an organization with a special interest in the subject of the committee. In this case, the organization has the option of appointing an alternate, to serve in the absence of the representative. The organization member or the alternate participates in PC activities in the same manner as an individual member, except that the representative and alternate may not serve as a Chair or Vice Chair of a PC.

No more than one person from a single organization can be a voting member on a PC. If there are two members from a single organization who have applied for membership on the PC, the Chair may request that one be a PC voting member and one be a PC non-voting member or subcommittee voting member if the PC has subcommittees.

Member Qualifications and Finding Members (See PASA 4.3.1)

Members of PCs do not need to be members of ASHRAE but have to agree to follow the ASHRAE procedures for standards and guideline developments and the [ASHRAE Code of Ethics](#). Potential members should be knowledgeable in the discipline of the standard or guideline. Members are sought from the cognizant Technical Committee, through direct outreach to materially interested parties, and a “call for members” announcement.

Membership Applications and Forms (See PASA 4.3.2)

To be considered for membership on a project committee, each potential member completes an application on the ASHRAE website [here](#). These forms should be reviewed every year and updated with changes. ([PC Chairs Recommendation Form](#), [application page for all members](#))

It is the responsibility of project committee members to keep their bio information on the ASHRAE website up to date, including email, phone number, employer and report changes promptly to the PC chair. If the member has a change in employer or funding sources, a new membership submission form shall also be submitted, and the PC chair notified, even if the project committee member does not think their interest category has changed. The reasons for submitting an updated application should be explained in the “additional notes” section of the membership application. (i.e., change of employer, change in funding source, retirement)

Membership Types (See PASA 4.3 and PASA Annex A)

There are multiple member types with varying roles and responsibilities. These include:



Project Committee Voting Member (PCVM): PCVMs are eligible to vote on PC motions. PCVMs are also eligible to vote on subcommittee motions where applicable, provided the PCVM is appointed to that subcommittee.

Project Subcommittee Voting Member (PSVM): PSVMs are eligible to vote on subcommittee motions where applicable, provided the PSVM is appointed to that subcommittee. PSVMs are not eligible to vote on PC motions. PSVMs are not included in interest-balance or PC quorum requirements. Generally, the number of PSVMs on a subcommittee is not higher than the number of PCVMs.

Non-Voting Members (NVM): An NVM is an additional type of membership for PCs not formally organized into subcommittees. NVMs are not eligible to vote on PC motions. NVMs are not included in interest-balance or quorum requirements. Typically, there are not more NVMs than PCVMs serving on a PC.

Organizational Members (OM): An organization with a voting representative on the PC that represents the interests of that particular organization rather than serving as an individual. (See PASA 4.3.10 and 4.3.11) A committee Chair can recommend that a government agency, public interest group, or organization that represents a number of entities such as a trade organization be an [organizational member](#). See also Section on Determining Membership Types. ([Application for PC Organizational Representative Member](#))

Consultants: From time to time the PC Chair may find a need to appoint consultants to help develop specific sections of a standard, guideline or portion thereof for which they have expertise. Consultants are appointed by the Chair. They are not members of the PC or the subcommittees and do not vote. Typically, if a PC has subcommittees there are 3 consultants per subcommittee and if there are no subcommittees there are usually 3 total consultants. Normally the term of a consultant mirrors the Chair's term.

International Organizational Liaisons (IOLs): This membership type was created to help make the standards, guidelines or portion thereof, internationally based and encourage international participation. IOLs do not have a vote on PC motions and are not included in interest-balance or quorum requirements. IOLs are listed on the roster and provided committee materials for input. ([Invitation to become an Official International Organizational Liaison](#))

Standing Committees

There are instances when a standard or guideline is placed on continuous maintenance or a project committee may be responsible for the development of multiple documents. In those instances, a standing standard project committee (SSPC) or standing guideline project committee (SGPC) is formed. The role of an SSPC is further discussed under the Continuous Maintenance sections. Members on those PCs will have term limits to encourage turnover in membership over time.

How to Determine if OMs Should Be Used (See PASA 4.3.10 and 4.3.11)

When determining whether OMs are right for a project committee the Chair may want to consider some of the following criteria:

- a) To what degree are the members of the organization directly and materially interested by the mandatory requirements of the standard? (I.e. one topic area, multiple areas, the entire standard?)
- b) How well will the representative of the organization represent the interests of the organization (Will they meet the requirements of OM membership?)
- c) Will the organization provide a representative with appropriate technical or scientific qualifications to serve, and if an alternate is appointed would that person have the same or similar qualifications? (Do they have subject matter expertise, and will they be able to vote on the matters before the committee?)
- d) Will the organization abide by the terms laid out in the OM application? (Will they vote, provide technical content, provide consolidated comments, be the conduit between the PC and the organization, and not expect financial support from ASHRAE?)

In general, the number of OMs as PCVMS shouldn't be greater than 1/3 of all the PCVMS on the Committee. Companies, such as Trane, Carrier, or Honeywell would not be considered organizations. Organizations are typically trade organizations such as AHRI.

OM Requirements and Applications

There are requirements for organizations that wish to be considered for appointment as an OM. The requirements are included in the OM application ([Procedures for Organizational Members, Application for PC Organizational Representative Member](#)) but are summarized here for convenience. OMs agree to the following prior to being considered:

- a) That the organization will participate to achieve the TPS of the standard;
- b) The organization will provide individuals with technical knowledge to serve;
- c) The organization will empower their representatives to vote on all motions;
- d) The organization will encourage their constituency to provide input and public review comments to their representative;
- e) The organization will encourage their constituency to provide consolidated public review comments; and
- f) The organization won't expect financial support from ASHRAE for expenses for participating in the activities of the PC.

Engaging International Participation (PASA Annex A)

ASHRAE is a global society but often committees find it difficult to get international members engaged and are often concerned about quorum issues. In order to facilitate the development and to promote the acceptance of the standard, the Chair may choose to establish liaisons with external bodies such as international trade or professional organizations, international standards committees, and other groups with an interest in the work of the PC. An International Organizational Liaison (IOL) is expected to participate in the PC meetings and contribute to achieving the TPS of the standard or guideline just as an OM member would. This type of member is added at the request of the Chair with consultation from the SPLS Liaison. An IOL completes the Invitation for [Project Committee Membership](#). IOL terms match the term of the Chair making the appointment.

The IOL does not have a vote at PC meetings and does not impact quorum but;

- a) Is listed on the PC roster;



- b) Receives all documents and communications that are distributed to members of the PC;
- c) Reports status of PC activities to the constituency of the organization; and
- d) Provides input from the constituency of the organization.

IOIs are beneficial as well if a committee has a goal of submitting the proposed standard to the International Standards Organization (ISO) for adoption as an ISO Standard.

Role of Technical Committees

Each PC has a designated cognizant Technical Committee (TC). TCs do not have approval rights over the work done by the PCs for which they are cognizant. They may recommend a liaison. If a liaison is not recommended the PC Chair should report the PC activity to the TC. A TC is a source for members and/or technical guidance when it is lacking on the PC. TCs will generally provide a list of potential members for consideration on PCs. While most TC recommendations are accepted by the PC Chair such acceptance is not automatic. A good resource for understanding the role of the TCs is the training program titled:

[TC's and PC's: Similarities and Differences.](#)

Project Committee Size (See PASA 4.3.12)

There is no limit on the number of members the Chair may request. In order to conduct standards actions there needs to be a balanced committee of at least 5 PCVMS, including the Chair. The Chair gets to determine the size of the committee subject to approval by SPLS.

Balance (See PASA 7.4.3)

The reason for the requirement for a balanced committee is to help arrive at consensus by ensuring all viewpoints are considered when the PC deliberates. The belief is that if all directly and materially interested parties constructively participate in the PC and consensus is reached, a fair standard will result. That doesn't mean that all applicants must be approved but that there be a good representation of the stakeholders affected by the standard, guideline or portion thereof. Participation by directly and materially interested parties is also met by participation at project committee meetings and submitting public review comments.

ASHRAE's requirements for balance on SPCs and SSPCs flow from ANSI's "due process criteria." *The ANSI Essential Requirements: Due process requirements for American National Standards* states, "The standards development process should have a balance of interests. Participants from diverse interest categories shall be sought with the objective of achieving balance." The criteria for balance are that a) no single interest category constitutes more than one-third of the membership of a project committee dealing with safety, and b) no single interest category constitutes a majority of the membership of a project committee dealing with all other standards. Although not required to, Subcommittees are encouraged to maintain balance. Motions made to the PC by unbalanced Subcommittees may result in more deliberation.

To ensure balance, no interest category can have a voting majority except with the recorded assent of the members in the other categories and approval by SPLS. All members will need to approve the unbalance of the project committee prior to any standards action votes. If a project committee is non-balanced, then a request for a call for members should be sent to ASHRAE staff and that should be documented. This should be an ongoing activity if there are issues finding interested participants. However, this approach should be one of last resort.



Interest Categories (See PASA 7.4.3 and PASA Appendix A)

When a new project or revision is proposed the proponent should provide a list of interest categories for the identified stakeholders. The proponent must include those recommended interest categories on the Form for Proposing a Standard or Guideline Project. Generally, consideration should be given to at least the following interest categories (See PASA Appendix A1, Definitions):

- a) Producer
- b) User
- c) General

There are also several additional interest categories that could be used (See [Appendix 3](#)).

If the three base interest categories don't fit for the development of the standard or guideline, the Chair can request the use of additional interest categories that have been approved ([Approved Interest Category Definitions](#)) or propose a different interest category. If a different interest category is needed the Chair may submit the request along with a definition of the new category. The new definition will need to be approved by SPLS. See [Appendix 3](#) for a list of all currently approved interest categories. Project Committees should look at this list prior to recommending new defined interest categories.

Tenure on Committees

Tenure on committees depends on the committee type. Below is the listing of committee types with relevant terms.

- a. SPC/GPC Chairs and Members
 - i. Terms end when the standard or guideline is published.
 - ii. Can be extended for one year if the committee requests that its term be extended to deal with potential interpretations and/or addenda.
- b. SSPC/SGPC Chairs
 - i. SSPC/SGPC Chair terms are normally three years (ending on June 30th of the third year).
 - ii. They can be reappointed.
- c. SSPC/SGPC Members
 - i. Generally, four-year terms for PCVMs although new committees will have staggered terms of 2, 3, or 4 years (Terms end on June 30th).
 - ii. Generally only ¼ of the PCVMs roll off every year.
 - iii. PSVMs and NVMs can serve 4 years in current role and another 4 years as a PCVM.
 - iv. Members can be reappointed subject to approval by SPLS.
- d. Consultants/Liaisons/IOLs
 - i. Consultants' and IOL terms match the term of the SPC/GPC/SSPC/SGPC Chair.
 - ii. Liaison terms match the term of the Chair of the TC/TG/TRG/MTG/other PC that is recommending the liaison.
- e. Organizational members;
 - i. Serve two-year terms. May be reappointed multiple times.
 - ii. Have two-year terms no matter which type of committee serving (SPC/GPC/SSPC/SGPC).

Membership Forms

Standards Staff is responsible for facilitating the PC Membership application process. Interested persons should contact the Standards Staff in response to a posted Call for Members, or the PC Chair may send a list of potential members to the Standards Staff and request initiation of the application process. Below are several helpful documents and forms to assist the PC in to better understanding the PC membership composition and the application process.

- 1) [PC Chairs Training: an Overview of PC Membership and Balance](#)
- 2) [Project Committee Membership: the Application Process](#)
- 3) [PC Membership Application Form](#)
- 4) [Procedures for Organizational Members](#)
- 5) [Potential Sources of Bias/Conflict of Interest](#)
- 6) [How to Update or File a Current Biographical Record Form](#)
- 7) [Invitation to become an Official International Organizational Member](#)
- 8) [PC Chair Deadlines \(includes Membership Deadlines\)](#)
- 9) [Sample Letter of Intent to Recommend Removal for Cause](#)

Member Resignation

If a member may resign because his/her job has changed, or they have decided to pursue other activities, whatever the reason, ASHRAE staff will need documentation of the resignation. When a Chair receives a resignation letter, he/she must respond, thanking the member for their service, and copying the [MOS](#) or standards.section@ashrae.org so that the roster can be updated.

Removal for Cause (See PASA 4.3.8 and PASA 4.3.9)

A sample letter for removal for cause can be found here: [Sample Letter of Intent to Recommend Removal for Cause](#).

When a project committee member has not been participating in meetings or responding to letter ballots a PC Chair may recommend (with justification) that the member be removed from the PC roster. (See PASA 4.3.8) While understanding that things come up, members should inform the chair of conflicts or other difficulties. SPLS may also recommend removal for cause of members as well. (See PASA 4.3.9). A PC Chair may recommend removal of a PC member from the roster for due cause and must explain their reasoning for SPLS consideration. The following are some examples of why a PC member can be removed:

- i. Member hasn't attended 50% of scheduled PC meetings in 12 months
- ii. Member hasn't responded to 60% of the letter ballots in 12 months
- iii. Failure to disclose conflicts of interest; or
- iv. Failure to act with honesty, fairness, courtesy, competence, inclusiveness and respect for others as stipulated in the ASHRAE Code of Ethics; or
- v. An organizational member wants to replace a representative on the PC

Prior to submitting a recommendation for removal to the SPLS Liaison and MOS, the PC Chair is expected to notify the PC member in writing of his/her intent to recommend removal for cause and the reasons why (see example letter of intent below). An offer to the member to resign from the PC rather than be removed for cause is highly recommended. SPLS may or may not approve removal requests if the chair has not provided satisfactory documentation to support the removal.



The recommendation for removal is submitted to the SPLS Liaison and MOS via the PC Chair's Membership Recommendation Form. The PC Chair shall complete the Removal of Member section of the PC Chair's Membership Recommendation Form and include documentation of the PC Chair's communication to the member, his/her response, and written justification for the recommendation (e.g., copy of meeting minutes noting absences, letter ballot vote counts noting unreturned ballots, etc.). The recommendation will be acted on by SPLS.

PROJECT COMMITTEE IS APPROVED: NEXT STEPS

PC Activity (See PASA 4.3.3)

After the PC formed and at the first official meeting (with an approved roster of 5 voting members) the PC should review the TPS and determine if any changes need to be made or if it should stand as approved. While the PC Chair is awaiting approval of the PC members, the Chair can hold organizational meetings for interested parties and begin development of the guideline or standard. However, no votes can be taken until the membership, at least five members, is approved.

Assistance/Guidance for PC

SPLS has created a work plan (WP) form for [SPCs/GPCs](#) and [SSPCs/SGPCS](#). The work plan is a mechanism for PC Chairs and committees to stay on track while developing the standard or guideline. The Chair develops the work plan with the SPLS Liaison and should share it with the PC. The intent of the WP is to help the SPLS liaison provide guidance and feedback to the PC Chair to help the PC complete its task. The SPLS Liaison will review this and assist in determining what actions are needed in order to meet those milestones. Delinquent Committees (those that have not made progress in 5 years) will be evaluated by SPLS so that the project committees can complete their project, or the project can be discontinued.

Complimentary Copies of Standards

During the development of ASHRAE Standards and Guidelines, if the PC determines a copy of another ASHRAE Standard or Guideline is needed, the PC Chair should submit a request for complimentary copies of standards via email to the MOS. The request should explain why the standard is required and should provide email addresses for the intended recipients. Complimentary copies may be provided only to PC members upon approval by the ASHRAE Director of Publications. PCs may be asked to use the ASHRAE Authoring Portal to revise their Standard or Guideline where PC members will have electronic read only access to requested complimentary copies.

Request for Copy – ISO Standard

PC Chair will send a request for a copy of an ISO standard to the Manager of Standards – International, in the following or similar format: "SPC/GPC/SGPC/SSPC XXX would like to request a copy of ISO Standard XXX for use in consideration of adoption by reference and harmonization with the ISO standard."

MEETINGS (See PASA 7.4.1)

All meetings in ASHRAE are open, on a space-available basis, to observation by directly and materially interested parties. PCs normally meet a minimum of twice each year at the Society meetings. This also



includes subcommittee and working group meetings. ASHRAE staff is responsible for publicly announcing meetings at the request of the PC Chair. PC Chairs are also encouraged to announce meetings to the entire PC membership. Participation in the meeting is by permission of the Chair. While all meetings are open the Chair may limit discussions to members of the PC, may limit the length of presentations, etc. It is advisable to allow directly and materially interested parties attending the meetings to participate but there may be instances where this is not possible. Participation by directly and materially interested parties can be met by submitting a public comment.

MEETING REQUESTS

ASHRAE Standards Staff has mechanisms in place that allow for meetings outside the Society meetings these include but are not limited to face to face interim meetings, electronic only meetings, and concurrent electronic and physical meetings. There are forms to submit for approvals. The forms include the following:

- A. [PC Meeting Room Request Form](#) – This is for meeting space at the ASHRAE Winter and Annual Conferences. Failure to submit room requests may result in the PC not having meeting space. If the PC reserves a room, then a meeting should be held. If meeting space is consistently not used the PC will lose its meeting space. Due to the increase of meeting room requests, and associated costs, if a PC does not submit a meeting room request or reserves a room and does not meet at two consecutive Conferences, the PC will not be guaranteed a room at the next Conference. The PCs usually meet at a minimum twice a year during the Society Conferences. If those meetings are not needed, then discuss alternatives with the SPLS Liaison and/or Standards Staff. If there is a reason that a PC is unable to meet contact staff, so the room can be released.
- B. Expediting Funds/Interim Meeting Request – Project Committees can always hold interim meetings between Society Conference meetings. These meetings can be via conference call, web meeting, or face to face meetings. Conference call requests need to be submitted to the MOS at least 14 days in advance of the call and face to face meeting requests need to be submitted at least 30 days in advance.

Meetings that exceed a cost to ASHRAE of \$500, a meeting request [form](#) must be submitted to the MOS to request approval of the meeting. Meetings over \$500 need justification for the meeting (i.e. accelerated schedule) and need to have additional approvals. PC Chairs should submit the [form](#) well in advance to provide staff time to get approval for funding and announce the meetings to interested parties. Face to face meetings are normally held at ASHRAE Headquarters unless the cost at a different location is less than or equal to the cost of meetings at ASHRAE Headquarters.

To requests funds for meetings costing ASHRAE under \$500, an email must be submitted to the [MOS](#). Conference call requests need to be submitted to the MOS at least 14 days in advance of the call and face to face meeting requests need be submitted at least 30 days in advance. This provides staff time to announce the meetings to interested parties.

- C. Concurrent Electronic and Physical Meetings at Society Conferences. For concurrent meetings, those participating electronically should have the same material as those



physically attending. Such requests will be part of the PC Meeting Room Request forms. ASHRAE doesn't provide phone lines at the Society Conferences but will provide the ability to use voice over IP with web capabilities to conduct these meetings. The PC may use its own equipment, or the equipment provided by ASHRAE. The form will request a designated member to be the point of contact for these meetings and to be responsible for starting the meetings, sending out the invitations, and obtaining ASHRAE equipment if requested.

Executive Session

Normally there are not instances when a project committee would need to go into Executive Session. Executive session should be limited to sensitive, proprietary (i.e. votes on research proposals or user manual bids), or items of a personal nature (member status).

Meeting Rules (See PASA 7.2.3)

The Chair or the Vice-Chair presides over meetings of the PC. Normally, *Robert's Rules of Order Newly Revised* (copies of the booklet, *The a-b-c's of Parliamentary Procedures*, can be requested from ASHRAE) govern the meetings unless a rule in PASA indicates otherwise.

Agendas

Agendas are generally distributed at least 30 days in advance of face to face meetings to provide directly and materially interested individuals with enough information to attend but also for members to know what will be discussed so that they know how to prepare. Copyrighted material should not be distributed beyond the approved roster without permission of the [MOS](#). Please contact the [MOS](#) if the Chair wants a Designated Reviewer (someone who is not a member of the committee) to have access to documents. ASHRAE has provided two sample agenda templates to aid PC Chairs. ASHRAE provides sample agendas for a PC's first meeting ([Agenda Template – First Meeting](#)) and for ongoing meetings ([Agenda Template – Ongoing Meetings](#)). There is also a template for SSPCs and SGPCs that are found here: [SSPC/SGPC Agenda Template](#).

Minutes

Minutes must be kept of all meetings of the PC. Minutes are to represent a formal record of the PC's actions at a meeting, and generally include the date, time and place of the meeting, member and guest attendance, motions and resulting votes, and actions items assigned. Minutes should not be verbatim of what was said but should include a summary of significant discussions and should attach material relied on by the project committee in making a decision. A sample meeting minutes template can be found [here](#).

Draft minutes are to be distributed to all individuals on the PC roster in advance of the next scheduled meeting to allow time for PC member review. The following needs to be included on the bottom of the cover page of all minutes: **"These draft minutes are not the official minutes until approved by this committee."**

During a scheduled meeting, the chair, or the designee, will ask for a motion and second for approval of the minutes, then ask the PC members if there are any corrections to be offered to the PC for consideration. If corrections are offered by PC members, the chair handles each correction individually to ensure that all PC members present have an opportunity to review the correction for accuracy.



Following the actions on corrections, if any, the PC will then vote to approve the minutes. Approving minutes by letter ballot prevents open discussion by PC members.

Failure to submit minutes to the [MOS](#) with a copy to the SPLS Liaison could delay processing of membership items, publication public review items, or publication items of the PC.

Drafting the Standard, Guideline or portion thereof (ROB 1.201.004.5)

The primary function of the PC is to draft the standard or guideline it is responsible for developing. The ASHRAE Board of Directors requires that all standards be written in mandatory language and that those that are to be referenced by code to also be written in code-intended language. Standards can include material written in non-mandatory language in informative notes or informative annexes or appendices. Guidelines are written in non-mandatory language. To assist PCs in drafting the standards, guidelines or portion thereof, Standards has developed a list of tools and training webinars as listed below:

1. [Template for Developing a New Standard or Guideline](#)
2. [Permissive Word Search Tool](#)
3. [SI for HVAC&R – a Guide to SI Units in HVAC&R](#)
4. [ASHRAE Guide to Writing Standards in Mandatory Language](#)
5. [ASHRAE Guide to Writing Standards in Code-Intended Language](#)

ASHRAE Staff has created a macro for use by PCs to do a check for words that often result in permissive language. Once the standard is at 80% to 95% draft the PC can use this tool to search for permissive language and revise the draft accordingly before approving it for publication public review. This tool can be found here: [Permissive Search Macro](#). This tool will only work on the Word 2013 version but feel free to also contact Standards [Staff](#) if additional assistance is needed in running the program.

Mandatory Language Waiver

ROB 1.201.004.5 requires standards be written in mandatory language unless a waiver has been granted by Standards Committee. If Standards Committee approves the Standard or addendum to a Standard for publication, they are granting a waiver of ROB 1.201.004.5.

If a PC is considering using non-mandatory language, they should work with their SPLS liaison and Staff to request a waiver of this ROB from Standards Committee. The waiver request should identify how potential non-mandatory language exists, or would exist, in the standard, and provide an explanation from the PC Chair explaining why non-mandatory language should be allowed.

SPLS must recommend the waivers to Standards Committee and Standards Committee must approve all waivers. If a waiver is not approved, the PC will be expected to comply with the ROB.

VOTING (See PASA 7.2.4, 7.5, 7.2.5, and 7.2.6)

In order to take any type of vote the Chair (Project Committee or Subcommittee) needs to determine if quorum has been met. Quorum is met when more than 50% of the voting members (Project Committee or Subcommittee) are at the meeting. PASA voting requirements depend on the motion types. Standards has prepared the [PC Chairs Training Getting Started- An Overview of Standards Writing](#) to assist PC Chairs in determining the types of motions. The motion types include the following;



- A. Standards Actions – this includes votes for publication public review and publication with knowledge of unresolved objectors (commenters/negative PC voters). Standards Action votes can only occur in meetings that have been properly announced. Standards Actions require that all voting members, present or absent, be given the opportunity to vote, and the opportunity to change their vote in the event of a recirculation letter ballot. A written response to negative voters on a letter ballot needs to be provided, advising them of the disposition of the objection and the reason(s) why. Chairs need to return a ballot indicating whether or not their vote is a yes, no or abstention vote or the ballot will be recorded as not returned. Chair not voting is not an option for standards actions motions. Approval of these motions requires:
 - i. A majority of the voting membership, voting in the affirmative.
- B. Non-Standards Actions votes – this includes TPS changes not part of a public review draft, approval of work plans, straw-man votes on draft language, user manual requests, responses to continuous maintenance proposals, responses to reviewer comments etc. These do not require that all voting members be given the opportunity to vote. For these matters, approval requires affirmative votes by a simple majority of PCVMs present.

Generally, a Chair does not vote (abstains) unless voting changes the outcome of the ballot. If the Chair does not submit a ballot in letter ballots the vote will be recorded as unreturned.

Letter Ballots (PASA 7.2.5, 7.2.6)

The Chair (or Subcommittee Chairs to his/her subcommittee) can authorize a letter ballot on any matter. The same voting rules apply. A letter ballot is typically conducted via the OCD.

Standards actions topics are to be discussed at a PC meeting before a letter ballot is issued. Historically, appeals have been upheld when contentious issues were forced through the process by letter ballot, which limited discussions by the PC.

Voting Options at the Meeting (PASA 7.2.4)

Motions can be made at any meeting so long as there is quorum. Motions should be recorded in the minutes of the meeting wherein the vote was initiated. If a Standards Action motion is made at the meeting the chair needs to do a continuation letter ballot if all voting members are not present. Continuation ballots are discussed in detail below. The Chair may also elect to discuss the issue at the meeting and do the entire motion via letter ballot if not all voting members are present.

Any voting member can vote in the affirmative, abstain with or without reason, vote negatively with or without reason, or not return a ballot. While reasons are not required for negative votes or for abstentions they can be helpful in several ways. PCVMs who vote negative or abstain with reasons may persuade other members of the committee to change their vote. Reasons for non-affirmative votes can also help the approving bodies determine whether or not process has been followed in the development of the standard, guideline or portion thereof. Again, these votes should be recorded in the minutes. Furthermore, PCVM who cast negative votes without summing reasons forfeit their right to appeal the outcome of a vote prior to publication.

When all PCVMs are present at a meeting and a member votes negatively with reason, the Chair should ask if anyone wishes to change their vote after hearing the reason. This offer should also be documented in the minutes, to preclude the need for a recirculation ballot before proceeding to



publication. If not all PCVMs are present, all negative votes with reasons must be sent to all members during the continuation letter ballot. All PCVMs can change their vote, reaffirm their vote, or cast their vote.

Only those that vote negative with reason will be offered a right to appeal.

Continuation Letter Ballots (PASA 7.2.4, 7.2.5, 7.2.6)

A Chair will need to issue a continuation letter ballot when a standards action motion is taken at a meeting and not all PCVMs are present. A standards action motion cannot pass even if there is quorum if all voting members were not given an opportunity to vote. One of two scenarios may occur with a continuation letter ballot.

First, all PCVMs present may have voted in the affirmative at the meeting; in this case the continuation letter ballot, along with the current vote count, is sent to those PCVMs not present, asking them to submit a vote in response to the continuation letter ballot. If all votes returned from the continuation letter ballot are in the affirmative the process is complete. The final results should include the vote tally, the unreturned ballots, and the abstentions with reason, if provided. If negative votes are received during the continuation letter ballot, then a recirculation ballot is needed, and the vote is not yet final.

Second, some PCVMs present may have voted in the affirmative and others in the negative (with or without reason). Again, the continuation letter ballot, along with the current vote count, is sent to the PCVMs asking them to reaffirm, change their vote or to submit a vote in response to the continuation letter ballot. However, in this case, the Chair should indicate in the vote count if the negative votes provided a reason or not. If a reason is provided the Chair should provide the negative vote with reason as background in the letter ballot and allow those who attended the meeting to reaffirm or change their vote and those that were not in attendance to vote. The Chair may include a rebuttal statement to the negative vote with reason as part of the continuation letter ballot. If all PCVMs who were absent submit affirmative votes and no one changed their vote to negative vote with reason, then the ballot is complete, and the results become final. The final results should include the vote tally, the negative votes with reason, if provided, and the abstentions with reason, if provided. If any PCVM who was absent submits a negative vote with reason, then a recirculation letter ballot is needed, and the vote is not yet final.

Recirculation Ballot (PASA 7.2.6)

Recirculation ballots may be required after a continuation letter ballot or after a motion taken entirely by letter ballot where a negative vote with reason was received. The Chair will need to conduct a recirculation letter ballot, which includes the negative votes with reasons to all PCVMs to allow them the opportunity to reaffirm or change their vote, if desired. As part of the recirculation ballot the Chair may include a rebuttal statement for the negative vote with reasons. It is suggested that the time for the recirculation ballot be not in excess of 7 calendar days.

After all voting members have been given the opportunity to reaffirm or change their vote, the vote will be final, and the results reported. If additional negative votes with reason are provided another recirculation ballot is not required.

Negative Votes on Standards Actions – Additional Actions Required (See PASA 7.2.6 and 7.4.6)

If a PCVM votes no with reason, the Chair will need to provide a reasoned response to the PCVM. See [Appendix 4](#) for example occurrences and how to satisfy PASA requirements.

Working Drafts and Public Review Drafts

In order to protect the copyright of the work products, working drafts require specific language in the document. See [Appendix 5](#) for the specific required language. Please contact the [MOS](#) if the Chair wants a Designated Reviewer (someone who is not a member of the committee) to have access to documents.

Designated reviewer: An individual appointed by ASHRAE Staff who is assigned to serve a specific purpose to the SPC/SSPC. Designated reviewers shall only have access to documents associated with the approved specific purpose.

IMPORTANT NOTE: When revising a periodic-maintenance standard or guideline only, all changes from the previous edition must be tracked by the committee using MS Word and its Track Changes feature which will underline to indicate new material and strikethrough to indicate deleted material. Any figures, tables, or equations that are modified or updated must be listed by name in a separate file (MS Word, Notepad, Excel, etc.). Continuous maintenance addenda changes in underline/strikethrough must still be hard-coded into the document (no track changes).

A separate copy of the PPR draft (see below) that integrates all changes to the previous edition (as submitted for public review) must be included with the final publication package.

For questions about publication deliverables, please contact [Managing Editor of Standards and Guidelines](#).

Revising the TPS

If the PC decides it is necessary to revise the TPS at any time during the development process and votes to change it, the [Proposed Changes to an Approved TPS form](#) is submitted to the [MOS](#). The Chair will need to provide the following information on the form:

- A. The current approved version of the TPS with deletions noted in hard strikethrough and additions in underline showing the revisions.
- B. A clean version of the TPS showing the changes to the original TPS.
- C. The justification for the revisions including the PC votes and date the vote was taken.
- D. Indicate whether or not the proposed changes are substantive.
- E. Indicate if the changes may affect new stakeholders.

PUBLIC REVIEW DRAFTS (PASA 7.2.1.1, 7.2.1.2, 7.2.1.3)

The PC can approve a draft for an advisory public review or publication public review.

- A. An advisory public review (APR) is not considered a standards action and only requires a majority vote. The SPLS Liaison can approve the draft to go out for review. An APR can be for the whole standard, to ask questions about potentially controversial items, or even just portions of the standard. This method is helpful if the standards, guidelines or portion thereof, has portions that are controversial or if the PC needs guidance and feedback from the public on



portions of the standards, guidelines or portion thereof, in order to get to a completed draft. The approval for issuing an APR is generally quick. The comments submitted on an APR draft are deemed to be supportive and do not need to be replied to or resolved. The PC will later need to vote to recommend approval of the draft for publication public review. (See PASA 7.2.1.1)

- B. The PC recommendation to approve a draft for Publication Public Review is a standards action. After the PC has voted to recommend approval of a draft for PPR, the PC Chair submits the draft to the [MOS](#) along with the [Publication Draft Submittal Form](#) for Staff review. There are two possible tracks for PPR approval:
- i. Fast Track (SPLS Liaison-only approval) can be used when no negative votes with reason have been cast within the PC, no credible threat of legal action (in writing) against ASHRAE has been made related to the proposed draft, and the MOS has not been notified by the SPLS Liaison within ten calendar days of receipt that the PC has violated rules related to the development of the draft. (See PASA 7.2.1.3). If no comments are received during the public review the standards, guidelines or portion thereof, can be processed by Staff for publication and no further approvals are required.
 - ii. Normal Track (SPLS approval) – occurs when there are unresolved objectors (negative PC votes with reason or unresolved commenters) from a previous public review or any of the fast track requirements are not met. This means that the draft, along with all the supporting documentation that has been submitted, will be provided to SPLS for review of the draft development process. If SPLS determines that proper process has been followed the draft will be approved for publication public review. (See PASA 7.2.1.2). If SPLS determines process has been violated, the standard, guideline or portion thereof, will be returned to the PC with instructions for further actions.
- C. Once standards, guidelines or portion thereof, are approved for PPR, availability of each draft is announced in the ASHRAE Standards Action for periods of 30 to 45 days. To receive notices please sign up for the ASHRAE *Standards Action* listserve at: [Standards Action List Serve](#).
- D. When revising a periodic-maintenance standard or guideline only, all changes from the previous edition must be tracked by the committee using MS Word and its Track Changes feature which will underline to indicate new material and strikethrough to indicate deleted material. Any figures, tables, or equations that are modified or updated must be listed by name in a separate file (MS Word, Notepad, Excel, etc.). Continuous maintenance addenda changes in underline/strikethrough must still be hard-coded into the document (no track changes).

A separate copy of the PPR draft (see below) that integrates all changes to the previous edition (as submitted for public review) must be included with the final publication package.

For questions about publication deliverables, please contact [Managing Editor of Standards and Guidelines](#).

Publication Public Review Draft Submittal Form

The following needs to be sent in to the [MOS](#) with the completed publication public review draft submittal form:

- A. Final electronic copy of the draft in Word;
- B. Draft marked to show all changes made since last public review or publication;
- C. All documentation of communications between project committee members and commenters from the last full public review and any subsequent ISC reviews that are outside of the messages exchanged through the OCD;



- D. Artwork in JPEG, TIFF, 600 dpi or better and native file format;
- E. Letter ballot responses from each voting member of the PC or roll call vote if at a meeting; and
- F. Written responses to objectors on letter ballot vote advising each of the disposition of the objection and reasons why.

Reviewing and Responding to Comments (See PASA 7.4.6)

When the comment period closes project committees can obtain a report from the online comment database listing the commenter reviewer and comments. All PC members, voting and non-voting, on the roster can view comments at any time during the public review process. Comments can be procedural or technical in nature. The commenter should provide language that would resolve his or her comment. For example, including proposed changes to the standard, guideline or portion thereof. A detailed step by step process from submitting a comment, PC use of the online comment database, and the Chairs role in using the online comment database has been recorded and posted [online](#). For those that prefer there are also instructions with screen shots. (See [Instructions for Commenters](#), [Instructions for Project Committee Members](#), and [Instructions for Project Committee Chairs](#).)

Substantive Changes Requiring Subsequent Full Public Review

After consideration of comments or because of new information received, the PC may decide on changes in the draft that the PC considers substantive and that require another publication public review of the complete draft. In this case, the commenters from the previous public review shall be notified via the OCD comment acknowledgment email that no formal response will be sent by the project committee to the commenter, another full publication public review will take place, and the dates of the public review will be announced in the ASHRAE Standards Actions. The PC is not required to respond to each comment. Any substantively changed draft must be approved and resubmitted by the PC for publication public review.

Revised Draft with Independent Substantive Changes (ISC)

After consideration of comments or because of new information received, the PC may decide on changes in the draft that the PC considers substantive and that require another publication public review of only ISCs. The committee must respond to the comments from the last full public review and any subsequent ISC reviews. Comments on sections that are addressed by the ISCs need not be resolved. The PC shall approve and submit a revised draft identifying the ISCs, and a publication public review limited to ISCs shall be conducted.

Comment Responses Allowed

The following are the response options allowed in the online comment database system:

- A. Accept comment as submitted;
- B. Accepted, with minor changes (same approach to the issue);
- C. Accepted, in principal (a different response to the issue is proposed);
- D. Rejected, except as noted (majority of comment is not accepted);
- E. Rejected;
- F. More information is needed;
- G. Deferred, Out-of-Scope (typical in ISC draft when portions are not open for comment); and
- H. Deferred, Late



With the exception of item A, detailed reasons for the response shown should be provided in the online comment database. See [Appendix 6](#) for examples of proper responses to commenters. Draft responses require only a majority vote by the PC and the PC Chair sends it out via the OCD. When PC has questions regarding whether or not the response is proper it is best to reach out to the PC's SPLS Liaison and/or Standards Staff for guidance. Improper responses to comments can be grounds for publication approval to be delayed and/or grounds for a process appeal.

Attempts to Resolve Comments

The PC is not required to resolve comments but is required to attempt to resolve the comments. This includes reviewing the replies sent by commenters after the committee responses are sent out. The following are samples of acceptable ways to attempt resolution:

- A. Invite each commenter to present additional data via the OCD or at a meeting of the PC.
- B. Personal discussion with each commenter by PC members.
- C. Email conversation with each commenter by PC members.
- D. Send additional responses from the PC in response to commenters.

Communication with the commenters outside of the OCD should be documented in writing, this could be documented in the minutes or via follow up emails. When doing follow up emails it is best to copy the SPLS liaison. If the committee still cannot resolve the commenter comments, then the PC can elect to approve another draft for another public review (full or ISC) or vote for final publication with knowledge of unresolved objectors. Documentation that supports an effort to resolve objections needs to be provided to staff and SPLS liaison with the final publication submittal package. For example, appeals have been upheld because the written record did not effectively document the breadth of efforts to resolve objections.

Potential Actions Following Close of PPR and Review of Comments

The following is a list of choices the PC has:

- A. No changes need to be made to the draft. If there are unresolved comments the PC votes to recommend approval for publication with knowledge of unresolved objectors. If there are no comments the original vote to recommend approval for publication public review stands.
- B. The PC finds only editorial changes need to be made (i.e. no requirements to the standard are made). The PC needs to vote that the changes are editorial. Same voting actions apply as in option A. If there is a disagreement between Staff and the Chair on whether or not the change is editorial, then the matter is referred to SPLS for a decision.
- C. The PC makes substantive changes and votes to recommend approval of a draft for publication public review. This new vote supersedes the prior vote.
- D. The PC decides the draft should be discontinued.

CONTINUOUS MAINTENANCE (CM) (PASA 7.3)

In some instances, a PC determines that updates to the standard, guideline or portion thereof, will be needed more frequently than every five years. This could be because the industry changes very quickly, there may be multiple documents the PC is responsible for, the standard, guideline or portion thereof, is referenced in code, or errors were found in the published version. A PC usually asks to be placed on CM in these instances, usually when the first version of the standard, guideline or portion thereof, is ready to publish.



If approved, the PC becomes a Standing Standard Project Committee (SSPC) or Standing Guideline Project Committee (SGPC). When this occurs, the Chair must create a rotating roster with term limits for the members. The same rules for balance will apply. A committee on continuous maintenance that does not publish an addendum within 4 years will automatically be placed back on periodic maintenance.

For SSPCs that are high profile standards or referenced in the codes 18-month supplements are issued should be discussed with the MOS.

Addenda to standards on continuous maintenance will be made available immediately (published) after publication approval unless the Chair of the PC and the Senior Manager of Standards Agree upon alternate publication timing prior to consideration of publication by Standards Committee.

The task of the SSPC or SGPC is to create changes via addenda, issued at least once every four years, to the standard, guideline or portion thereof. These changes can be generated internally by members of the PC or from directly and materially interested parties through a continuous maintenance change proposal form. ([CMP Form](#))

When a formal CMP is submitted the SSPC or SGPC needs to review and respond to it within 13 months of receipt. The SSPC or SGPC can respond to the author of the CMP as follows:

- a) proposed change accepted for public review without modification;
- b) proposed change accepted for public review with modification;
- c) proposed change accepted for further study; and
- d) proposed change rejected

If the SSPC or SGPC chooses option a no additional information is needed. If the PC chooses option b or d, then the PC will need to provide technical reasons for that decision. A reason that states “the PC doesn’t like it” does not satisfy the requirement. If the SSPC or SGPC decides that option c is appropriate the additional study needs to be completed within 7 months otherwise the committee should reject the proposal and ask that it be resubmitted at a later time. If option c is chosen then after 7 months the committee will need to respond with options a, b, or d.

INTERPRETATION REQUESTS (PASA 7.11)

Sometimes after publication of a standard, guideline or portion thereof, an interested party may have a question if their interpretation of the document is correct. This would result in either a request for an unofficial (personal) interpretation or official interpretation. Requests for interpretations of standards are sent to the [MOS](#).

An unofficial request can be responded to by the ASHRAE Manager of Technical Services or the Chair of the current or past cognizant PC or the Chair's designee will be asked to respond to requests for unofficial interpretations. Normally unofficial interpretations are responded to within 30 days of submission. These are only the opinion of the person responding to the request for interpretation.

A formal request for interpretation is sent to the project committee to review and approve a response. Approval of an official interpretation requires affirmative votes from a majority of the membership of the approving body. The official interpretation is published on the ASHRAE website and becomes part of the standard. Generally, the questions are written so that the answer is yes or no with some explanation.



Directions for requesting an interpretation can be found here: [How To Request An Interpretation](#)

DUPLICATION AND HARMONIZATION (PASA 7.6.1)

SPLS or Standards Committee may not approve a standard, guideline or portion thereof document for public review or publication if the requirements of Section 5.4, *Requirements* of the ANSI Essential Requirements or Section 7.6, *Criteria for Approval* of PASA, specifically, items 7.6.1d, (conflict) and 7.6.1e (duplication), are not met. As part of the development process, PCs should avoid conflict with other ASHRAE or American National Standards.

Refer to PASA Annex A1, *Definitions* for the formal definition of a conflict between standards, but in general a conflict exists when a practitioner cannot comply with both standards.

- For example, if the maximum flow specified in one standard is less than the minimum flow specified in the related standard, there is a conflict.
- In another example, the maximum flow specified in one standard is higher than the maximum flow specified in the related standard; while this is inconsistent, both standards can be met by specifying a flow at the lesser of the two maximum flows.

To address policy requirements pertaining to harmonization and duplication during the standards development process, PC's are expected to:

- examine other known standards for conflicts and keep records of evaluations (PASA 7.6.1e, ANSI ER 5.4e)
- pursue findings and/or allegations of duplication or lack of harmonization
- notify the SPLS liaison and Staff if allegations related to duplication and harmonization are made,
- exercise and document good faith efforts to resolve allegations and findings (e.g. ad hoc committees, working groups, meetings with objectors, etc.) (ANSI ER 2.4)
- where duplication is deemed necessary, formally document the compelling need for the standard (PASA 7.6.1)
- provide above documentation to SPLS and Standards Committee along with requests for standards or guideline approvals

Again, PC's should strive to avoid conflicts in the development of standards and guidelines. However, if the PC chooses to make a case for duplication or lack of harmonization, SPLS and Standards Committee will base recommendations for approval on the PC's good faith attempts to resolve conflicts and the PCs case for compelling need. If Standards Committee recommends the standard, guideline, or portion thereof for publication, Standards Committee will also report objections as an information item to Technology Council and the ASHRAE Board of Directors.

APPENDIX 1 – Procedures Index

This appendix provides links to the PASA rules, a general description of the rule, the approvals needed (if applicable) and links to any training materials and forms on the [PC Chairs Toolkit](#) site.

TOPIC	PASA RULE CITATION	GENERAL INFO	APPROVAL (If Applicable)	TRAINING/FORMS
Understanding the ANSI/ASHRAE Standards Development Process	PASA 6	ANSI due process requirements and ASHRAE procedures related to the development of consensus for approval of American National Standards.	N/A	<ol style="list-style-type: none"> 1. ANSI Essential Requirements: Due Process Requirements for American National Standards 2. PASA 3. ASHRAE Code of Ethics 4. PC Chairs Training: Ethics, Bias and Conflict of Interest
Due Process	PASA 7.4	Overview of minimum acceptable due process requirements	N/A	N/A
Openness	PASA 7.4.1	Requirements for openness	N/A	N/A
Access	PASA 7.4.1.1	PC meetings are open to all interested parties	N/A	N/A
Barriers	PASA 7.4.1.2	Requirements regarding ASHRAE membership	N/A	N/A
Notice	PASA 7.4.1.3	PC meeting announcements, requirements and documentation	Approval for meetings over \$500 is by the SPLS Liaison, Sr.MOS.	<ol style="list-style-type: none"> 1. PC Interim Meetings 2. Standards Actions 3. meeting minutes template
Lack of Dominance	PASA 7.4.2	Difference between balance and dominance	N/A	N/A
Balance and interest categories	PASA 7.4.3 Appendix A	Requirements for PCs and PCs dealing with safety standards and Guideline PCs and Subcommittees	Policy Level committee Chairs are approved by SPLS and StdC. All other PC members are approved by SPLS.	<ol style="list-style-type: none"> 1. PC Chairs Training: An Overview of PC Membership and Balance 2. Approved Interest Category Definitions
Development of a new Standard or Guideline		References to procedures and forms for proposing a new standard or guideline. And a link to the existing TPSs for review. This also includes the link to the training webinar.	New TPS approved by PPIS, StdC, and TechC.	<ol style="list-style-type: none"> 1. Procedures for Requesting a New Standard or Guideline 2. Form for Proposing a Standard or Guideline Title, Purpose and Scopes 3. Requesting Development of New Standards and Guidelines and Reviewing Existing Standards
Proposed Revisions to an approved TPS		Procedures to provide requirements to make changes to an approved TPS.	TPS approved by SPLS, StdC.	<ol style="list-style-type: none"> 1. Proposed Changes to an Approved TPS form



TOPIC	PASA RULE CITATION	GENERAL INFO	APPROVAL (If Applicable)	TRAINING/FORMS
Getting Started	N/A	This gives PC Chairs and Committee members on overview on what steps to take after the TPS has been approved.	N/A	1. PC Chairs Training: Getting Started – An Overview of the Standards Writing Process
PC Formation Membership/ Establishment Of Project Committees	PASA 4.3	PC composition, types of members, voting status	N/A	1. PC Chairs Training: an Overview of PC Membership and Balance
PC composition	PASA 4.3.12	Minimum requirements	N/A	
Recruiting	PASA 4.3.1	Standards Actions Call for Members/Email Outreach	N/A	1. PC Chairs Training: an Overview of PC Membership and Balance 2. Standards Action List Serve
Voting Status	PASA 4.3.2		N/A	1. PC Chairs Recommendation Form 2. Application for Membership
Organizational Members	PASA 4.3.10, 4.3.11	Criteria for considering, limitations	SPLS	1. Procedures for Organizational Members 2. Application for PC Organizational Membership Part 1 3. Application for PC Organizational Representative Member
International Organizational Liaison	PASA Annex A	Definition, voting status and appointment procedures	PC Chair	1. Invitation to become an Official International Organizational Liaison
PC Officers	PASA 4.3.5	Responsibilities, requirements and approval of PC officers	SPLS	
Subcommittees	PASA 4.3.4	Overview of when used	Subcommittee Chair Approved by SPLS.	1. SSPC/SGPC Chairs Recommendation Form
Membership Application and Approval Process	N/A	Overview of membership process	N/A	1. PC Chairs Training: an Overview of PC Membership and Balance 2. Project Committee Membership: the Application Process
Membership forms	N/A	Membership application forms	SPLS	1. PC membership Application form 2. Potential Sources of Bias/Conflict of Interest 3. ASHRAE bio – How to Update or File a Current Biographical Record Form 4. Procedures for Organizational Members 5. Application for PC Organizational Representative Member 6. Invitation to become an Official International Organizational Member 7. PC Chairs Deadlines
PC Chair recommendation	N/A	PC Chair nomination forms	SPLS	1. SPC/GPC Chairs Recommendation Form 2. SSPC/SGPC Chairs Recommendation Form

TOPIC	PASA RULE CITATION	GENERAL INFO	APPROVAL (If Applicable)	TRAINING/FORMS
Removal for Cause	PASA 4.3.7, 4.3.8, 4.3.9	Attendance Requirements/Letter Ballot response/Failure to disclose conflict of interest	PC Chair Recommend or SPLS initiate and approve	1. Sample Letter of Intent to Recommend Removal for Cause
PC meeting requirements	PASA 7.4.1.1	PC meeting request forms, meeting templates, and existing scheduled meetings	N/A	1. Society meetings – PC Meeting Room Request Form 2. Interim meetings and funding requests – Expediting Funds/Interim Meeting Request Form 3. Agenda Template – First Meeting 4. Agenda Template – Ongoing Meetings 5. SSPC/SGPC Agenda Template 6. Meeting Minutes Format 7. Project Committee Meetings
PC Activity Initiation	PASA 4.3.3, 7.2.3	Quorum requirements, TPS approval, work plan	TPS – SPLS, StdC, and TC WP – SPLS liaison	1. Running Effective Meetings 2. ASHRAE Simplified Rules of Order – Online link 3. Proposed Changes to an Approved TPS 4. SPC/GPC Work Plan template 5. SSPC/SGPC Work Plan template
Voting and Consensus	PASA 7.2.4, 7.5, 7.2.5, 7.2.6	Types of motions	N/A	1. PC Chairs Training Getting Started – An Overview of Standards Writing
Standards Actions votes	PASA 7.2.4	Voting requirements for Standards Actions	PC	1. https://www.ashrae.org/technical-resources/standards-and-guidelines/pcs-toolkit
Letter Ballots	PASA 7.2.5 and 7.2.6	Voting requirements for letter ballots	PC	1. PC Chairs Guide for Preparing Public Review Letter Ballots 2. Sample letter ballot
Draft a Standard, guideline or portion thereof	N/A	Standard, guideline or portion thereof, draft development process. Standards vs. Guidelines (mandatory vs informative language). Tools and templates including the SI unit policy and a source for terminology and definitions.	N/A	1. Template for Developing a New Standard, guideline or portion thereof, 2. Permissive Word Search Tool 3. SI for HVAC&R – a Guide to SI Units in HVAC&R 4. ASHRAE Terminology and Definitions
Mandatory language	N/A	Mandatory language overview	N/A	1. ASHRAE Guide to Writing Standards in Mandatory Language
Code intended language	N/A	Code intended language overview	N/A	1. ASHRAE Guide to Writing Standards in Code-Intended Language
Draft Submission for PR	N/A	Standard, guideline or portion thereof, submission requirements for public review	PC (SPLS)	Publication Public Review Draft Submittal Form
Public Review	PASA 7.2.1			

TOPIC	PASA RULE CITATION	GENERAL INFO	APPROVAL (If Applicable)	TRAINING/FORMS
Advisory Public Review	PASA 7.2.1.1	Criteria for approving, considering and responding to commenters	PC majority vote/SPLS Liaison and SPLS Chair approve	1. PC Chairs Training: Public Review Process Overview
Normal Track PR	PASA 7.2.1.2	Criteria –negative PC votes, threat legal action	SPLS approve	1. PPR Publication Draft Submittal Form 2. PC Chairs Training: Public Review Process Overview
Fast Track PR	PASA 7.2.1.3	Criteria –no negative votes, no threat of legal action	SPLS Liaison approve	1. PPR Publication Draft Submittal Form 1. PC Chairs Training: Public Review Process Overview
Responding to Commenters	PASA 7.4.6		PC	1. PC Chairs Training: Online Comments Database
Unresolved Objectors on Publication (policy or non-policy)	PASA 7.2.2		Approval by PC and StdC	1. PC Chairs Training: Public Review Process Overview
Publication	PASA 7.2.2, 7.6	Publication process, submission form	N/A	1. Final Publication Draft Submittal Form
Publication approval	PASA 7.2.2, 7.2.4 and 7.6		No Unresolved Objectors Unresolved Objectors-StdC and BOD	
Patents	PASA 9	Patents are allowed provided that a license is made available under reasonable terms and conditions. (See also ANSI Essential Requirements).	N/A	N/A
Commercial Terms and conditions	PASA 10	Standards should not endorse a particular product, service or company . (See also ANSI Essential Requirements)	N/A	N/A
Antitrust Policy	PASA 11	Standards to be developed in accordance with applicable antitrust and competition laws.	N/A	N/A
Continuous Maintenance Change Proposals	N/A	Proposing changes to standards and guidelines on continuous maintenance.	N/A	1. How to Submit a Proposed Change to a Standard. 2. Continuous Maintenance Procedures 3. Form for Submittal of a Proposed Change to a Standard 4. Form for Submittal of a Proposed Change to a Guideline 5. Form for Response to a Change Proposal

TOPIC	PASA RULE CITATION	GENERAL INFO	APPROVAL (If Applicable)	TRAINING/FORMS
Interpretation Requests	PASA 7.11	Requests to interpret existing standards, guidelines or portion thereof, with or without an existing PC.	N/A	N/A
International Standards	N/A	This gives an overview of International Standards.	N/A	1. Overview of International Standards
TC Roles in Standard, guideline or portion thereof, Development	N/A	This provides a description of the similarities and differences between TCs and PCs.	N/A	1. TCs and PCs Similarities and Differences
PC Websites	N/A	Provides links to existing PC websites, the website policy and request for website forms.	N/A	1. Web Policy for ASHRAE Groups 2. PC Websites 3. PC Website Request Forms

APPENDIX 2 – GUIDANCE FOR TPS DEVELOPMENT

It is very important that the title, purpose and scope be written concisely. The word “standard” or “guideline” should generally not be used in the title. Definitions, references to published documents and “foreword” type material should not be included in the purpose or scope. Present tense, active voice should be used, as if the document were already written.

The project’s purpose statement (section 1) describes in general terms what the proposed standard, guideline or portion thereof, accomplishes. The scope (section 2) describes what is included in the standard, guideline or portion thereof. Scope subsections are numbered only when more than one is needed (e.g., 2.1, 2.2). Section headings should be uppercase and bolded. Section and subsection numbers should also be bolded. See example TPS below:

TITLE: Laboratory Method of Test of Fault Detection and Diagnostics Applied Commercial Air-Cooled Packaged Systems

PURPOSE: This standard provides a method to define an FDD tool's function. This standard also provides a method of laboratory test for the performance of Fault Detection and Diagnostic (FDD) tools on commercial air-cooled packaged equipment.

SCOPE:

2.1 This standard applies to commercial air-cooled packaged air conditioning systems.

2.2 The test is a physical laboratory test on a particular combination of diagnostic tool for each model of a unitary system.

2.3 This standard applies to any on-board, after-market or hand-held hardware and/or software functionality that detects and/or diagnoses problems that lead to degraded performance such as, energy efficiency, capacity, increased maintenance costs or shortened equipment life.

APPENDIX 3 – INTEREST CATEGORY DEFINITIONS

This is a listing of current approved interest categories.

Interest: the perspective of a member of a project committee, as judged by his or her present and past sources of income, fees, or reimbursements of related expenses, in the context of the purpose and scope of the project committee. The perspective may also be judged by the recorded views of the individual, or of any organization he/she is employed by or of which he/she is a member.

Interest categories: the principal (top) tier of interest classifications. For some standards projects, it may be appropriate to designate subcategories of one or more interest category.

DEFAULT INTEREST CATEGORIES

Producer: A member who represents the interest of those that produce materials, products, systems, or services covered in the project scope.

User: A member who represents the interest of those that purchase or use materials, products, systems, or services other than for household use covered in the project scope.

- a) **User-Consumer:** Where the standards activity in question deals with a consumer product, such as window room air conditioners or residential/commercial dehumidifiers, an appropriate consumer participant's view is considered to be synonymous with that of the individual user – a person using goods and services rather than producing or selling them.
- b) **User-Industrial:** Where the standards activity in question deals with an industrial product, such as chillers used for process cooling, an appropriate user participant in the industrial user of the product.
- c) **User-Government:** Where the standards activity in question is likely to result in a standard that may become the basis for government agency procurement or a regulation applicable to government buildings, an appropriate user participant is the representative of that government agency.
- d) **User-labor:** Where the standards activity in question deals with subjects of special interest to the employer/worker, such as products used in the workplace, an appropriate user participant is a representative of labor.

General: A member who cannot be categorized in any other approved interest category covered in the project scope.

OTHER PROJECT COMMITTEE SPECIFIC APPROVED INTEREST CATEGORIES (Project Committee #)

Analytical or Consulting Services - A member who provides analytical or consulting services relative to specifications in the standard. (188)

Appliance, Residential Automation, and Consumer Electronics Producer: Those directly concerned with the production or distribution of products or services involved with residential appliances, or energy control applications in residences, including industry associations representing producers or distributors, or those receiving substantial support from a producer directly concerned. (201)

Compliance: Persons primarily interested in compliance with the standard. A person in this category would make their living from developing regulations, enforcing the requirements of the standard, developing programs tied to the standard, or advocating the standard. Example members of this



category would be building code officials, building code organizations, state energy offices, and other local, state, and federal officials. (90.1, 90.2, 189.1)

Commercial/Institutional/Industrial Producer: Those directly concerned with the production or distribution of the products or services used in commercial, institutional, or industrial facilities, including industry associations representing producers or distributors, or those receiving substantial support from a producer directly concerned. (201)

Consumers – Residential, Commercial, and Industrial: those who use the product or service involved, or those who receive substantial support from a user directly concerned, but are not involved with its production or distribution. This reference is not to users of the standard, but to users of the product or service covered by the standard. (201)

Consulting Engineer/Contractor/Architect: Professionals involved with the design and installation systems containing refrigerants. (34)

Designer: A designer of buildings, building systems or subsystems (including envelope, HVAC, lighting). A person in this category would make their living from designing buildings and systems that are impacted by the standard. Example members of this category would be architects, design firms, consulting engineers, lighting designers and employees of energy consulting firms. (15, 90.1, 90.2, 110, 189.1)

Designer: A person that designs hospitals and does not work for a hospital. (170)

Designer/Builder: Those who provide building design and construction services, including consulting engineers, HVAC and general contractors, design /build contractors, or representatives of associations of these types of professionals. (62.1, 62.2)

Flight Personnel: Individuals who are employed by the airlines as part of the aircraft crew (pilots and flight attendants) or individuals employed by the airlines to maintain the aircraft, and organizations that represent these individuals. (161)

General: A member who cannot be categorized in any other approved interest category covered in the project scope.

General: Members indirectly involved in the equipment supply chain, mostly consultants, independent test labs, etc. (G23)

General: Those who have interests other than those described elsewhere, and may include consulting engineers or employees of appropriate government agencies, nationally recognized testing laboratories or educational institutions, and codes-oriented individuals. (201)

General: All others not considered Producers or Users, including primarily preparers and executors of DDC specifications such as HVAC design engineers, independent control system designers, and commissioning agents. (G13)

Industry: Construction firms or manufacturers, producers, or distributors of products or systems that would be installed in buildings. A person in this category would make their living from constructing buildings or producing or distributing products impacted by this standard or representing groups of manufacturers impacted by this standard. Example members of this category would be contractors, manufacturing firms, assembly firms, distributors and wholesalers, and industry trade associations that represent these groups. (90.1, 90.2, 189.1, 189.2)



Infection Control Practitioner: Works for a hospital or health care organization but may be an independent contractor in the business of infection control. (170)

Manufacturers: Employees or representatives of manufacturers, distributors or trade associations of HVAC equipment, HVAC controls, and equipment designed to enhance indoor air quality (e.g. air cleaners). Also, individuals associated with products used in the construction of buildings (e.g., finishes, wall and floor coverings, wood products) and used within buildings by occupants (e.g., furniture and furnishings, tobacco products, appliances, office equipment). (35, 62.1, 62.2, 110, 161, 164, 184)

Manufacturer: A member who produces equipment used in building water systems that are affected by compliance with the standard. (188)

Manufacturer/Filter: individual is employed by a company that produces finished air filtration products using base air filtration media as one of the components. (52.2)

Manufacturer/Media: individual is employed by a company that produces base air filtration media only. (52.2)

Operator: Individuals employed by a commercial passenger airline in a management or technical support role. May also include trade associations representing commercial airlines. (161)

Owners/Operators/Occupants): Employees or representatives of building owners/ managers, building engineers, facility managers, and consultants who specialize in working in existing buildings (as opposed to those who design and construct new buildings), as well as representatives of building occupants. (62.1, 62.2)

Passenger: Individuals who pay to ride on aircraft, and the organizations that represent these individuals. (161)

Producer: A member who represents the interest of those that produce materials, products, systems, or services covered in the project scope.

Producer: Anyone representing a manufacturer of equipment used for smoke management. (G1.5)

Producer: Manufacturers, distributors, or installer of products that are specified in a DDC specification, including control systems, sensors, actuators, valves, and front-end or 3rd party software. (G13)

Producer/Refrigerant: an individual who represents a company that produces or sells refrigerants used in air conditioning and refrigeration systems (34)

Supplier: Employees of firms that provide maintenance services for HVAC systems owned by others. This would include engineers and consultants with a primary job scope of specifying or supervising maintenance of HVAC systems owned by others. It would especially include contractors and technicians who actually perform HVAC system services for hire. This group may also include representatives of associations the membership of which falls in this category. (G1.2, G13, G20, 63.1, 191)

Supplier: Members who represent major components and completed HVAC equipment suppliers. (G23)

Tester: A member who is employed by an independent test laboratory concerned with testing the specific type of components or systems covered in the project scope. It is important to note that anyone classified in this category cannot be employed by a manufacturer of the system or component being

tested. If that is the case, that person needs to be reclassified as Producer, as he/she represents the interest of the employer. (110)

User: Users of buildings and building systems and subsystems. A person in this category would make their living from owning or operating buildings. Example members of this category would be building owners and operators (private and governmental), tenants, and trade associations or organizations representing these groups. (189.1)

User: A member who represents the interest of those that purchase or use materials, products, systems, or services other than for household use covered in the project scope.

User: Anyone using the document for commissioning smoke management systems, including designers of smoke management systems who specify commissioning methods appropriate to the design of the system. (G1.5)

User: Party for whom the DDC specifications are written, including building owners, plant engineers, energy services companies, and general contractors and other contractors other than the controls contractor or installer. (G13)

User: Members who build and supply completed rail transit vehicles and who purchase and apply HVAC systems to the vehicles. (G23)

User/Components: an individual who represents a company that manufactures or sells components that are used in air conditioning and refrigeration systems that use refrigerants (34)

User/Systems: an individual who represents a company that manufactures, assembles or sells air conditioning and refrigeration systems that make use of refrigerants. (15, 34)

Utility: Those who provide energy services to buildings impacted by this standard. A person in this category would make their living from providing energy services to a building impacted by this standard. Example members of this category would be electric, gas, steam, or other utility and trade associations or organizations representing these groups. (G1.2, 90.1, 90.2, 189.1, 201)

Vehicle Buyer/Operator: Members who represent rail transit operating authorities (e.g. Amtrak, WMATA, etc.) who specify and purchase completed transit vehicles.

Water Treatment Provider - A member who provides treatment of building water systems that are affected by compliance with the standard (188)

APPENDIX 4 – RESPONDING TO NEGATIVE VOTES WITH REASON ON PPR EXAMPLES AND GUIDANCE

At some time during the process there needs to be a written record of responding to the negative votes with reason on the approval of the PPR. This could be recorded in the minutes, a final vote for "publication", or a draft response prior to the next letter ballot. If negative votes aren't responded to in writing, someone could appeal and the standard, guideline or portion thereof, could be sent back to the committee to properly respond, thereby delaying publication of the document. In addition, if the document were chosen for the ANSI audit, an adverse finding may result. When items are missing, Project Committee Chairs are the source for the missing information during audits.

The requirement from PASA is that "A written response to negative voters with reason voting at a meeting or via letter ballot shall be issued advising each of the disposition of the objection and the reasons why." In this context disposition means a summary in writing of why the negative vote with reason was unpersuasive and the vote count. Satisfying this requirement can be done in a number of ways as described below.

Minutes

If the negative votes are discussed at the PC meeting, include a summary of what happened (disposition) and why (reasons therefore) in the draft or approved minutes (See "Minutes ") this may be used as supplemental information to a PC letter ballot. Then distribute the minutes of the meeting, which includes the summary, to the PC member and ask if anyone want to change their vote, reaffirm their vote, or vote and to respond in writing. The upside is it has been already discussed and it won't require discussion at a later meeting. The downside is it requires more paperwork and organization to document.

Final Vote for Publication

Using this method, the committee can take a final vote for publication with knowledge of unresolved objections at the end of the process (i.e. after all public reviews and comments are responded to). When doing this include in the materials all the written disposition to the commenters and negative votes in the documentation to the PC members and offer them the opportunity to change their vote, reaffirm their vote, or to vote. The upside here is its well documented and easy to show compliance. The downside is the committee may have to revisit already decided and/or remember prior conclusions.

Appeals have been upheld on contentious addenda when PCs have voted for publication with knowledge of unresolved objector(s) via a letter ballot and documentation of efforts to resolve objectors was inadequate. In order to best cover the PC action and provide solid documentation that the PC considered objections, ASHRAE recommends the following best practice of voting for publication with knowledge of unresolved objections:

- 1) Schedule a time at a meeting to discuss the Standards Committee Documents (SCD). In particular, the discussion should focus on the question "does the committee think the SCD be published as written, or should further modifications be made, or should we do something else?"
- 2) Invite unresolved objectors via email (save the emails) to attend the meeting to discuss their objections. Advise everyone if they will be given a specified amount of time to present their position. Viewpoints are to be allowed equal time. Invitations should be issued in accordance



with meeting notification requirements specified in PC Guide to PASA under the heading “Meeting Requests”.

- 3) In the invitation, ask unresolved objectors to provide marked up text that would resolve their issue. If they provide text, save the proposal for the record and provide it to the PC at the meeting
- 4) At a meeting:
 - a) A motion “to approve publication of [Insert SCD name here] with knowledge of unresolved objections” shall be made and seconded.
 - b) Allow committee members to ask questions of the objectors. Reasons for project committee objections to the proposal are to be documented in minutes. For example, ask yourself; “Are the objections persuasive or not? Or Does the committee want to proceed with publication or not?”
 - c) Following discussions and deliberations vote on the motion.
- 5) If a continuation ballot is required, include attachments from 3 and information in 4b (the committee reasoning) with the letter ballot.
- 6) If the motion passes, provide the documentation from steps 3, 4, and 5 with the publication submittal package.

Draft a Response Prior to Letter Ballot

If a member votes no with a reason during a meeting, the Chair may provide a disposition of the negative vote which is sent with the continuation letter ballot to all PC members and offer them the opportunity to change or reaffirm their vote, or vote. The advantage of this approach is that the negative vote is dispensed with right away.

Disposition and Reasons Therefore

Just saying the committee found the argument unpersuasive is not adequate to satisfy the PASA requirements. This does not explain **why** the committee did not agree. There needs to be a reason why it was unpersuasive. Included below are some samples of bad and good reasons.

Bad: The committee rejected your comments because it was not persuaded to change their position.

Good: The PCVMs voting in the affirmative were not persuaded to change their position because there is evidence to the contrary. *[insert summary of technical justification relied upon]*.

Good: The PCVMs voting in the affirmative were persuaded by the argument that *[insert summary of argument relied upon]*

Bad: Your math was wrong.

Good: Your comment included a mathematical error that the PC discovered during discussion on their May 27, 2016 conference call. We’ve decided not to make the change because the requirement makes sense when you follow proper order of operations.



If there are ever odd or unique issues always feel welcome to contact [ASHRAE staff](#) for help or guidance.

APPENDIX 5 – WORKING DRAFT COPYRIGHT LANGUAGE

This is a working draft document intended for review only by the cognizant ASHRAE groups and other designated reviewers and is not for distribution to any private interests, individuals or third parties that are not designated as ASHRAE reviewers for this document.

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APPENDIX 6—RESPONSES TO COMMENTS

Improper responses to comments are considered process violations so it is important for the PC to take the necessary time to draft good responses so as not to delay publication of the standard, guideline or portion thereof. If an appeal is filed on an improper comments response, these are often upheld on appeal. The examples included below are not all inclusive but intended to provide guidance to the PC when drafting responses. If the PC questions whether or not a response is sufficient to defend a process appeal please contact the SPLS Liaison or [MOS](#) for guidance.

SCENARIO ONE: A commenter submits a comment that only asks that the committee change the standard but does not provide proposed changes to resolve them.

GOOD RESPONSE: The comment is rejected because you did not propose a change.

BEST RESPONSE 1: Thank you for your comment. The committee notes that you did not include a proposed change in strikethrough and underline form. The Committee reviewed the issue and does not agree that it is proper to change it at this time because (insert reasoning here).

BEST RESPONSE 2: The Committee reviewed the issue and agrees that the section needs to be changed and intends to include the following change in the next public review: (include change).

Staff Note: To help speed up the process when the committee proposed changes when a commenter does not include a proposed a change with his or her comment or when the committee is considering a change different than what the commenter proposed it is wise to contact the commenter and discuss it in advance of the PC approving the response. If this is done either follow up with a written email or summarize the discussion in the online comment database.

SCENARIO TWO: The commenter includes a proposed change in track changes. The PC does not agree with the proposed change and will not make any change to the section referenced in the comment.

BAD RESPONSE: Thank you for your comment. The Committee does not agree to the proposed change.

Staff Note: This would be successfully appealed because the Committee is not explaining why it is not accepted the change.

BEST RESPONSE 1: Thank you for your comment. The Committee does not agree to the proposed change. The Committee has found that the scientific literature as outlined in XYZ supports the language as shown. It is the intent of the standard to reduce the risk of the disease and this provides a control of the bacteria.

BEST RESPONSE 2: Thank you for your comment. The Committee does not agree to the proposed change because of argument (summarize argument).

SCENARIO THREE: The commenter includes a proposed change in track changes. The PC does not agree with the proposed change and is proposing a different change to the section referenced in the comment.

BAD RESPONSE: Thank you for your comment. The Committee does not agree to the proposed change and is proposing a different change. *Staff Note: This would be successfully appealed because the Committee is not explaining why it is not accepting the change and does not include the proposed revision.*



BEST RESPONSE: Thank you for your comment. The Committee does not agree to the proposed change but is proposing the following for the next public review: (include revised text here). The committee received several comments on this section along with technical data (include a summary here).

SCENARIO FOUR: The commenter includes a proposed change in track changes. The PC agrees to the change.

BAD RESPONSE: Thank you for your comment.

BEST RESPONSE: Thank you for your comment. The Committee agrees and intends to include this change in the next public review.

APPENDIX 7- INTERPRETATION REQUESTS

Unofficial Interpretation Requests – Directly and Materially interested parties can request unofficial interpretations of standards, guidelines or portions thereof, that do not need to be approved by the PC. The Chair can respond to these requests or ask a committee member to respond. The response time on unofficial interpretation requests is generally 30 days. These do not become part of the standard.

When an unofficial interpretation request is responded to it will need to include the following language on the email: “An unofficial or personal interpretation is a written explanation of the meaning of a specific provision of a standard, guideline or portion thereof, in response to a written request. While every effort has been made to ensure its accuracy and reliability, it is advisory and provided for informational purposes only, and in many cases represents only one person’s view. It is not intended and should not be relied on as an official statement of ASHRAE.”

When responding to unofficial interpretation requests the [Manager of American Standards](#) should be copied.

Sample Request: I have a question on INTERPRETATION IC 62.1-2010-4, and I was not sure how to go about getting an answer. The interpretation indicates Vbz shall be no less than the building component in the DCV zone and that this is also true for ASHRAE Standard 62.1-2007. This is directly in line with Addendum g to Standard 62.1-2007, which specifically states that requirement. However, the interpretation was published January 21, 2012, which is after Addendum g was published (January 2010).

My question is whether that requirement (that Vbz shall be no less than the building component in the DCV zone) still holds for ASHRAE Standard 62.1-2007 projects designed before Addendum g was published. Obviously, that requirement is a better design and the intent of the addendum should be met for better ventilation for the project space, but this question has arisen in a debate.

Response: The unofficial interpretation is: The addendum clarifies the requirement that was always there to ventilate whenever the building is scheduled to be occupied. The requirement was implicit in section 5.4, 6.2.6.1, and 6.2.7. Addendum g made the requirement explicit. “An unofficial or personal interpretation is a written explanation of the meaning of a specific provision of a standard, guideline or portion thereof, in response to a written request. While every effort has been made to ensure its accuracy and reliability, it is advisory and provided for informational purposes only, and in many cases represents only one person’s view. It is not intended and should not be relied on as an official statement of ASHRAE.”

Official Interpretation Requests – Directly and Materially interested parties can also request official interpretations of standards, guidelines or portions thereof. These need to be approved by the PC and become part of the standard. These should be responded to within 30 days or no later than the next PC meeting after the request was received. The PC should review any approved interpretation requests prior to the next revision of the standard and make any necessary changes to assure that the new language clarifies the language that had been subject to interpretation.

When responding to official interpretation requests the [Manager of American Standards](#) should be copied. The [official interpretations](#) are placed on the ASHRAE website and announced in the ASHRAE Standards Action.



Appendix 8 – APPROVAL SEQUENCE of STANDARDS RELATED ACTIONS

Action	Initiator	Recommending Entity	Affirmative Vote Required	Approving Entity	Affirmative Vote Required	Other Approval
Initiate Development of a New Standard, guideline or portion thereof						
Submit to PPIS proposed title, purpose and scope (TPS) and recommendation for a chair (ASHRAE member) & roster (min 4 + chair)	TC/TG/TRG (or a responsible entity or person)	PPIS	*Majority	StdC	*Majority	Technology Council
Select Project Committee Chair and Members						
Recommend PC Membership -	SPLS Liaison & PC Chair	SPLS	*Majority			
Advisory Public Review (APR)						
Recommend advisory public review	PC	PC	*Majority	SPLS Liaison	None	
Publication Public Review (PPR)						
Recommend Fast Track Processing	PC or SRS #	PC or SRS	+Standards Action	SPLS Liaison	Approval	
Recommend Normal Track Processing	PC or SRS #	PC	+Standards Action	SPLS	*Majority	
Respond to Comments						
Respond to comments submitted via online database	PC or SRS #	PC or SRS #	*Majority	PC or SRS #	*Majority	
Publication/Withdrawal						
Recommend publication or withdrawal following PPR (unresolved objector/commenter/negative PC vote with reason)	PC or SRS #	PC or SRS #	+Standards Action	StdC	*Majority	
Recommend publication or withdrawal following PPR (I – no unresolved objectors and no threat of legal action)	PC or SRS #	PC or SRS #	+Standards Action	PC or SRS#	+Standards Action	
Appeal						
Uphold or deny an Objector's appeal	Appeals Panel			Appeals Panel	*Majority	
Initiate Revision of an Existing Standard, Guideline or portion thereof (when no PC exists for R/RA/W)						
Recommend revision within 5 year cycle	TC/TG/TRG or SRS	SRS	*Majority	SRS	*Majority	
Recommend revision within 5 year cycle	SSPC/SGPC or subcommittee	SSPC/SGPC	*Majority	SSPC/SGPC	*Majority	



Initiate Revision or Reaffirmation of an Existing Standard, Guideline or portion thereof						
(when a PC exists)						
Recommend revision within 5 year cycle	SSPC/SGPC or subcommittee	SSPC/SGPC	*Majority	SSPC/SGPC	*Majority	
Recommend reaffirmation and review updated references	PC	PC	*Majority	SdtC	*Majority	
Initiate Reaffirmation of an Existing Standard, Guideline or portion thereof						
(when no PC exists)						
Recommend reaffirmation and review updated references	TC/TG/TRG	TC/TG/TRG	*Majority	SRS	Majority	
Withdraw an Existing Standard or Guideline						
Recommend withdrawal	TC/TG/TRG or PC	SRS	+Standards Action	SRS	*Majority	
Revise a Title, Purpose and Scope (TPS)						
Recommend revised TPS	PC	SPLS	*Majority	StdC	*Majority	
Notes						
StdC	Standards Committee					
PC	Project Committee					
PPIS	Standards Committee - Policy, Planning and Interpretations Subcommittee					
SPLS	Standards Committee - Standards Project Liaison Subcommittee					
SRS	Standards Committee - Standards Reaffirmation Subcommittee					
TechC	ASHRAE Technology Council					
BOD	ASHRAE Board of Directors					
Quorum at a meeting	More than 50% of voting membership present					
#	SRS can act as the revision committee under certain circumstances					
*	For a non-standards action vote: majority of those voting at a meeting; Letter ballot – majority of the voting membership					
+	For a standards action: affirmative votes by the majority of the voting membership. When recorded votes are taken at meetings, project committee members who are absent shall be given the opportunity to vote before or after the meeting. See example below.					
	Letter Ballot -- Affirmative votes by the majority of the voting membership. Negative votes with reason shall be ‘recirculated’ to all voting members with time limit in case anyone wants to change vote. Results are final upon expiration of time limit.					

APPENDIX SUMMARY OF PC GUIDE TO PASA CHANGES

The Table below gives a summary of the PC Guide to PASA Changes beginning 2017.

Revision	Changes	Approval Date
Original Release	The original edition of the PC Guide to PASA was approved by Standards Committee on January 12, 2017.	Standards Committee January 12, 2017
Editorial	Role of a Vice Chair – in this section, editorial changes were made to clarify the intent and role of a vice chair.	Standards Committee June 27, 2017
Editorial	Publication Public Review Draft Submittal Form – item C, clarified that it does not pertain to just ISC's	Staff August 30, 2017
Editorial	Added 2 sections: Substantive Changes Requiring Subsequent Full Public Review and Revised Draft with Independent Substantive Changes	Staff August 30, 2017
Editorial	All hyperlinks have been updated to correspond with the new ASHRAE website.	Staff May 21, 2018
Editorial	Updated Interpretation Request section to correspond with PASA.	Staff June 12, 2018
Approved	New sections have been added (p.13, 18 and 22 respectively). <ul style="list-style-type: none"> • P.13 – Complimentary Copies for Standards • P. 18 – Designated Reviewer • P. 22 – Duplication and Harmonization 	Standards Committee June 27, 2018
Approved	New section added for Mandatory Language Waiver p.16 Updated Minutes p.15 Updated Letter Ballots p.16 Updated Attempts to Resolve Comments p.21 Updated Continuous Maintenance p.21 Updated Final Vote for Publication p.38 Updated Appendix 5 – Minutes p.39	Standards Committee January 16, 2019
Editorial	Added Appendix 9: Approval Sequence of Standards Related Actions The Standards Committee Chair suggested we copy the approval table from StdC MOP to the Guide. PC chairs do need to know what committee approves what, particularly when trying to guide controversial items through the approval process. This change is deemed editorial.	Editorial June 6, 2019
Approved	p. 14 – Meeting Requests – updated to offer clarity and additional guidance to members about interim meetings. p. 23 – Duplication & Harmonization – updated to offer clarity between conflict, duplication and harmonization and to set expectations for PCs consideration of such matters. New sections (p. 10) – Role of Subcommittees and Role of Adhoc Groups – additional guidance was added	Standards Committee February 5, 2020



	p. 11 – Balance , p. 14 Meetings and p. 17 Voting – updated to expand guidance for what subcommittees and adhoc groups can do and what they can't do.	
Approved	Entire document – removed the term consensus body and replaced with project committee; replaced “SCD” with standard, guideline or portion thereof; p. 13– Removal for Cause – moved requirements from the Sample Letter and added them to the procedures p. 19 – Recirculation Ballot – reduced time frame from two weeks to 7 calendar days p. 20 – Public Review Drafts item B (i) – fast track – allows fast track approvals of any publication including policy level documents that have no unresolved objections. B (ii) – Normal Track - clarified definition p. 22 – Periodic Maintenance – added a section regarding PM Standards	PASA Reaccredited April 21, 2020 (Gloria Rule Applied)
Editorial	Removed the reference to PASA 6 from the Minutes section and deleted the first sentence because information regarding minutes are not referenced in ANSI ER or PASA.	May 29, 2020 editorial
Editorial	Removed “excluding abstentions” from p.17 Voting, Ai. A majority of the voting membership, excluding abstentions , voting in the affirmative, and... This change brings the Guide in line with PASA.	February 3, 2021 editorial
Editorial	The PC Guide to PASA was editorially updated to align with the PASA editorial updates. Throughout the document edits reflect a consistent use of “directly and materially interested parties”.	February 9, 2021
Approved	A suggestion for a modification to the <i>PC Guide to PASA</i> , “Membership Applications and Forms” (pg. 8), was received from the Chair of 90.1. This change is being proposed to provide clarification for the new online membership process.	Standards Committee March 31, 2021
Approved	Updated Removal for Cause section p. 13, to further elaborate a reason for removal, item iv.	Standards Committee June 23, 2021
Editorial	Removed Owner/Operator from Interest Category Definitions section (A3) as it was discontinued in 2011. Owner/Operator: Employees or representatives of building owners, managers, engineers, or campus type facility owners, and managers or engineers who specialize in working in existing buildings. These individuals are frequently involved in modifications or upgrades to existing buildings or facilities, and may be involved as an owner in the construction of new buildings. (15)	August 4, 2021
Approved	Instructions for a Request for Copy of an ISO standard was included in the Guide. (p.14)	Standards Committee February 2, 2022

Approved	PASA was reaccruited on 1/27/2023, subsequently changes made in PASA require changes to the PC Guide to PASA. Primary changes to the Guide includes changes to the voting process; removal of the 2/3 requirement and it also removes Board approval for Standards Actions. It authorizes Standards Committee/Tech Council to be the final approval body. These changes streamline our process. For a detailed list of PASA changes, they can be found in the PASA APPENDIX Summary.	Standards Committee January 27, 2023
Editorial	PASA 7.2.4.2 Numerical Requirement for Standards Action Votes – removed “excluding abstentions”. This was mathematically incorrect in process. The Guide has been updated to be in line with PASA. The letter ballot examples have been removed to promote usage of the OCD. Appendices have been renumbered.	April 13, 2023
Approved	Additions were made to PC Guide to PASA (p.4) <i>Steps to Publication</i> ; (p.20) <i>added new section</i> and PC Guide to PASA (p.21) <i>Public Review Drafts</i> to offer clarification to PC Chairs when submitting a document to Publications. These changes will save Publications staff from having to completely lay out from scratch all revisions to PM standards, saving considerable time and leads to faster republication. (p4, p.20, p.21)	Standards Committee June 24, 2023
Editorial	Clarified language in the Guide Informative Note “ Working Drafts and Public Review Drafts”p.20 and “Public Review Drafts” p21 to address that the process only applies to Periodic Maintenance documents. Continuous maintenance addenda changes in underline/strikethrough must still be hard-coded into the document (no track changes).	Editorial September 15, 2023
Editorial	Updated the MOS hyperlink with current MOS contact information.	Editorial December 5, 2023
Editorial	Updated Ethics, Bias and COI hyperlink	Editorial 1/2/24
Approved	Clarified the voting type in the Section for PASA Membership Types, Project Subcommittee Voting Member and Voting.	Standards Committee 1/20/2024
Approved	Added a process for non ANSI Standard path – ASHRAE (only).	Standards Committee 6/22/2024
Approved	Edited the section: How are Requests for New TPSs evaluated. Rephrased the sentence: PPIS will contact consider feedback and input from the appropriate ASHRAE Technical Committee (TC) for feedback and input.	Editorial 9/10/2024
Approved	Added a section that outlines a path from ASHRAE(only) to an ANSI/ASHRAE document.	Standards Committee 2/8/2025