Approved by the IEEE-SA Standards Board: November 2019

IEEE-SA Standards Board Operations Manual

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IEEE-SA Standards Board Operations Manual

1. Introduction

1.1 Scope and purpose

The organization and basic procedures of the IEEE-SA Standards Board are covered by the *IEEE-SA Standards Board Bylaws*. The following material supplements the provisions of the *IEEE-SA Standards Board Bylaws*, which shall be the prevailing document in the event of conflict. The purpose of this document is to specify the procedures that shall be followed in the standards-development process in use within the IEEE.

1.2 Types of IEEE standards

IEEE standards include but are not limited to:

— Lists of terms, definitions, or symbols, applicable to any field of science or technology within the scope of the IEEE.

— Expositions of scientific methods of measurement or tests of the parameters or performance of any device, apparatus, system, or phenomenon associated with the art, science, or technology of any field within the scope of the IEEE.

— Characteristics, performance, and safety requirements associated with devices, equipment, and systems with engineering installations.

— Recommendations reflecting current state-of-the-art in the application of engineering principles to any field of technology within the scope of the IEEE.

IEEE standards are classified as:

— *Standards*: documents with mandatory requirements.[1]

— *Recommended practices*: documents in which procedures and positions preferred by the IEEE are presented.

— *Guides*: documents in which alternative approaches to good practice are suggested but no clear-cut recommendations are made.

— *Trial-Use documents*: publications in effect for not more than three years (see 5.7). They can be any of the

[1]Mandatory requirements are generally characterized by use of the verb "shall," whereas recommended practices normally use the word "should." See the *IEEE Standards Style Manual* for further information.

categories of standards publications listed above.

The IEEE standards development process may result in one or more of the following documents:

— *New*: A document that does not replace or modify another standard.

— *Revision*: A document that updates and replaces (i.e., supersedes) an existing IEEE standard in its entirety.

— *Amendment*: A document that adds to, removes from, or alters material in a portion of an existing IEEE standard and may make editorial or technical corrections to that standard.

NOTE – An amendment to a standard may be prepared to maintain the state-of-the-art within the standard due to advancing technology or techniques. An amendment facilitates the timely change of an existing IEEE standard prior to its complete revision.

— *Corrigendum*: A document that only corrects editorial errors, technical errors, or ambiguities in an existing IEEE standard. A corrigendum does not introduce new material.

NOTE –A typical corrigendum may contain:

— Corrections to equations, tables, or figures, or their associated numbering or citations in the text

— Corrections to technically incorrect sentences or paragraphs

— *Erratum*: A document that contains only grammatical corrections to, or corrections of errors introduced during the publishing process of, an existing IEEE standard. An erratum is based on the comparison of the final balloted version of the standard as compared to the published version.

IEEE Standards Project Editors can assist Standards Committees in determining whether an amendment or revision is appropriate.

IEEE Standards may be in one of three states of activity:

— *Developing*: Standards projects that have not yet been approved as standards.

— *Active*: Approved standards that have not been transferred to inactive status.

— *Inactive*: Standards that are no longer being reviewed or assessed for accuracy, relevance to current practices, or further applications; these standards are removed from active status (i.e., these standards are transferred from active to inactive status). (See 9.2).

1.3 Standards documentation

All IEEE-SA draft standards, meeting minutes, Standards Association ballot materials, and Standards Association ballot comments shall be in the English language.

2. Related documents

American National Standards Institute, *ANSI Essential Requirements: Due process requirements for American National Standards* (current edition).

IEEE Standards Association Operations Manual.

IEEE-SA Standards Board Bylaws.

IEEE-SA Board of Governors Open Source Operations Manual.

PAR Form.

IEEE-SA Standards Board Working Guide for Submittal of Proposed Standards and Form for Submittal of Proposed Standards. (Known as the IEEE-SA Working Guide for the Submittal of Proposed Standards.)

IEEE Standards Style Manual.

Robert's Rules of Order, Newly Revised (current edition).

3. Abbreviations and acronyms

AdCom: IEEE-SA Standards Board Administrative Committee

ANSI: American National Standards Institute

ASC: ANSI Accredited Standards Committee

AudCom: IEEE-SA Standards Board Audit Committee

IEEE: Institute of Electrical and Electronics Engineers

NesCom: IEEE-SA Standards Board New Standards Committee

PAR: Project Authorization Request

PatCom: IEEE-SA Standards Board Patent Committee

ProCom: IEEE-SA Standards Board Procedures Committee

RevCom: IEEE-SA Standards Board Standards Review Committee

SASB: IEEE-SA Standards Board

SCC: Standards Coordinating Committee

SDO: Standards-Developing Organization

TC: Technical Committee

WG: Working Group

4. IEEE-SA Standards Board and committee procedures

4.1 IEEE-SA Standards Board

4.1.1 Transaction of business

Except as specified in the *IEEE-SA Standards Board Bylaws* and these procedures, business of the IEEE-SA Standards Board meeting will be conducted in accordance with the latest edition of *Robert's Rules of Order*.

4.1.1.1 Agenda

4.1.1.1.1 Regular meetings

A preliminary agenda for each regular meeting shall be prepared by the Secretary and sent to the members of the IEEE-SA Standards Board, including liaison representatives, at least two weeks prior to the meeting date. The preliminary agenda shall also be sent to the IEEE-SA Board of Governors (BOG).

A final agenda shall be presented at the time of the IEEE-SA Standards Board meeting. Recommendations to the IEEE-SA Standards Board from the committees of the IEEE-SA Standards Board shall be contained in an agenda item known as a "consent agenda." Prior to approval of the agenda, any member may request that an item on the consent agenda be removed and considered separately as part of the agenda. Adoption of the consent agenda as modified constitutes approval of all included items by unanimous consent. The balance of the agenda normally includes the Chair's report, the Secretary's report, action items, information and discussion items, committee reports, and new business.

4.1.1.1.2 Special meetings

An agenda for each special meeting shall be prepared by the Secretary and sent in conjunction with the meeting notice, to all voting members of the IEEE-SA Standards Board and the IEEE-SA Board of Governors; the IEEE-SA Standards Board Chair shall determine the extent to which the agenda shall be further distributed.

4.1.1.2 Minutes

The minutes of each meeting of the IEEE-SA Standards Board shall be distributed by the Secretary to voting members, liaison representatives, the IEEE-SA BOG, those present at the meeting, and anyone involved in an action of the IEEE-SA Standards Board within four weeks following the meeting. In reporting an official action of the IEEE-SA Standards Board, the minutes shall, on request of dissenters, contain a record of the dissenting votes. In addition, a listing of resolutions of each meeting of the IEEE-SA Standards Board shall be publicly distributed by the Secretary within four weeks following the meeting.

4.1.1.3 Project Authorization Requests (PARs)

PARs that have been submitted by Standards Committees to the Secretary of the IEEE-SA Standards Board by the established deadline shall be submitted by the Secretary to the New Standards Committee (NesCom) for review. Notification of this distribution shall be given to all members of the IEEE-SA Standards Board. (For additional information on the procedures of NesCom, see 4.2.2.)

4.1.1.4 Submittal of proposed standards

Proposed standards, together with the required documentation, that have been submitted by Standards Committees to the Secretary of the IEEE-SA Standards Board by the established deadline shall be submitted by the Secretary to

the Standards Review Committee (RevCom) for review. Notification of this distribution will be given to all members of the IEEE-SA Standards Board. (For additional information on the procedures of RevCom, see 4.2.3.)

4.1.1.5 Confidentiality Statements and Copyright Notices on Communications

The IEEE-SA Standards Board and its committees operate in an open manner. To that end, no material submitted to the IEEE-SA Standards Board or its committees will be accepted or considered if it contains any statement that places any burden on the recipient(s) with respect to confidentiality or copyright. Any communication, including electronic mail, containing language with such restrictive wording will not be accepted or considered.

It should be noted that this policy does not apply to IEEE copyrighted materials, such as draft standards, or to materials to or from IEEE counsel appropriately classified as attorney-client privileged. In the event that copyrighted materials are to be incorporated in an IEEE standard, an acceptable copyright release or assignment must be obtained from the copyright owner prior to approval of the standard by the IEEE-SA Standards Board.

4.1.2 Liaison representatives

The Secretary of the IEEE-SA Standards Board shall circulate the following information to the liaison representatives for review and action:

a) *Each IEEE Project Authorization Request (PAR) submitted for approval.* The liaison representative is expected to review each request to see if his or her organization has a substantial interest in the project.

b) *Agenda for each IEEE-SA Standards Board meeting.* This should be reviewed to determine if there is any item on the agenda of substantial interest to the organization. The liaison member should be present, if necessary, to support the interests of the organization.

c) *Minutes of meetings of the IEEE-SA Standards Board.* This shall include action taken on PARs and draft standards.

d) *Notice of assignment of a standards project.* When the IEEE-SA Standards Board, on its own initiative, agrees on the need for a standard, a request to develop the standard shall be sent to the liaison representative of the Society and/or the Standards Coordinating Committee (SCC) having primary interest in the subject. The liaison representative is expected to assign the project to the appropriate technical unit as a Standards Committee for the development of the standards project.

e) *Status Reports.* The liaison representative shall review any sections of the project reports that may be assigned to his or her organization and notify the Secretary of the IEEE-SA Standards Board of any corrections and revisions. The liaison representative should ensure that action is taken to revise all standards assigned to the Society within ten years of the date of approval. The liaison representative should monitor work being done on all standards projects and report any changes in the status of the standards to the Secretary of the IEEE-SA Standards Board.

4.2 Standing committees of the IEEE-SA Standards Board[2]

4.2.1 Procedures Committee (ProCom)

This committee shall review proposed modifications to the *IEEE-SA Standards Board Operations Manual* and the *IEEE-SA Standards Board Bylaws* and submit its recommendations for a vote of the IEEE-SA Standards Board. It shall hold meetings as the need requires.

[2]Note that not all committee operations are detailed in this subclause.

This committee shall review proposed modifications to the *IEEE Standards Style Manual* and submit its comments to IEEE-SA Staff.

4.2.2 New Standards Committee (NesCom)

This committee shall examine Project Authorization Requests (PARs) and make recommendations to the IEEE-SA Standards Board regarding their approval. Such forms shall be reviewed in detail to make certain that all necessary information has been properly provided.

4.2.3 Standards Review Committee (RevCom)

This committee acts in an advisory capacity to the IEEE-SA Standards Board by making recommendations on the approval or disapproval of standards submitted for IEEE-SA Standards Board approval or adoption.

Approval or adoption of a standard requires a consensus of RevCom that the requirements of the procedures of RevCom and those of the IEEE-SA Standards Board have been satisfied. Specifically, this means that the final results of the Standards Association ballot and statements submitted by balloters who participated in the development of the standard indicate that consensus has been achieved and unresolved negative ballots have been properly considered, together with reasons why the comments could not be resolved.

4.2.3.1 RevCom agenda

A preliminary agenda for each RevCom meeting shall be prepared by the Secretary of the IEEE-SA Standards Board or a designated person and distributed to RevCom members at least 30 days[3] prior to a scheduled meeting of RevCom. Included with the agenda shall be a list of all proposed standards to be presented to the IEEE-SA Standards Board for approval. At the same time the agenda, without supporting documentation, shall be sent to all members of the IEEE-SA Standards Board, liaison representatives, and other organizations and persons. The agenda is to be sent to all persons and organizations that have expressed an interest in the standards activities of the IEEE.

4.2.3.2 Review of draft standards

The RevCom Administrator shall distribute a copy of each proposed standard to the members of RevCom, together with the submittal form and any other pertinent information, for review. An IEEE-SA Standards Board member or the liaison representative may request a copy of the proposed standard from the RevCom Administrator. RevCom members are responsible for reviewing the documents and submitting comments to the RevCom Administrator. All comments and objections with reasons shall be distributed by the RevCom Administrator to RevCom members and the liaison representative of the Standards Committee.

All requests for approval of a standard shall be reviewed by RevCom to ensure that the submittal is complete and that appropriate IEEE procedures are followed completely and correctly (see the IEEE-SA Working Guide for Submittal of Proposed Standards).

Examples of some of the points that must be carefully analyzed are given in the following paragraphs:

— *Title of Document.* The title on the draft document and submittal form shall be within the scope as stated on the most recently approved PAR, or action(s) shall be taken to ensure this.

— *Coordination.* Mandatory coordination comments shall be addressed. If the Standards Committee believes that satisfying specific mandatory coordination comments will impede the utility of the draft standard, appropriate documentation of this position shall be presented to RevCom.

[3]Throughout this document, the term ‘days’ shall mean calendar days.

— *Standards Association Ballot Summary.* A ballot summary of the vote of the members of the Standards Association balloting group is required, e.g., showing the classification of members and including comments accompanying unresolved negative ballots. For complete details, see 5.4.1 and 5.4.3.

— *Standards Association Balloting Group.* The Standards Association balloting group shall be formulated according to 5.4.1.

— *Classification of Standards Association Balloting Group.* Classification of the Standards Association balloting group shall be in accordance with 5.4.1.

— *Standards Association Ballot Comment Responses*. All Standards Association ballot comments shall receive consideration and response in accordance with 5.4.3.

4.2.3.3 Standards Committee representation at RevCom

At the suggestion of the Secretary, the Standards Committee may send a representative to the RevCom meeting at which a proposed standard having unresolved negative comments is to be reviewed. The Secretary shall ensure that the representative receives a copy of all comments, objections, and negative RevCom votes with reasons. The Standards Committee representative shall be given an opportunity to discuss them at the meeting.

4.2.3.4 Proponents and objectors to actions before RevCom

Proponents and objectors to actions before RevCom may attend meetings to present their views. When negative comments are received in advance from RevCom members, the Standards Committee shall be invited to send a representative(s) to the RevCom meeting to answer questions and help resolve issues.

4.2.3.5 Dissenting opinions

At the request of any member of RevCom, a recommendation may be accompanied by a statement in disagreement with the recommendation. While there seldom is a “minority” position, the IEEE-SA Standards Board shall be informed of significant controversies.

4.2.4 Audit Committee (AudCom)

This committee shall make routine reviews and inspections to assure that each standards-developing entity, through its Standards Committee and Working Group policies and procedures (P & P), is adhering to the procedures described in the *IEEE-SA Standards Board Bylaws* and the *IEEE-SA Standards Board Operations Manual*. It will make recommendations as appropriate to advise the standards-developing entities of changes that are needed. The committee shall periodically issue reports when requested by the IEEE-SA Standards Board, summarizing its findings and making recommendations as appropriate for Standards Board action.

The committee shall develop sets of basic Standards Committee and Working Group operating procedures for standards development and shall use such operating procedures as a baseline when performing audits of P & P.

4.2.4.1 AudCom review of Standards Committee P & P

AudCom recommends to the IEEE-SA Standards Board the following actions concerning IEEE-SA Standards Committee P & P:

— Accepted

— Not accepted

— Visibly under development

A Standards Committee's P & P shall be determined by AudCom to be visibly under development or accepted by AudCom before performance of any standards work (including but not limited to: PAR actions, Standards Association ballot actions, etc.) by that Standards Committee is authorized by the IEEE-SA Standards Board to commence.

After a Standards Committee's P & P have been submitted to AudCom and an AudCom member is assigned as mentor to review the document, the P & P may be determined by AudCom to be visibly under development. The P & P will remain in such a state until AudCom is either satisfied that they are complete and acceptable or that the Standards Committee is no longer responsive to AudCom and that the P & P are not acceptable.

AudCom will ensure that each standards-developing group has based its P & P on the appropriate baseline procedures (e.g., individual, entity, SCC Type 1, or SCC Type 2) available from the IEEE-SA.

Standards Committee P & P shall be subject to review by AudCom every five years to ensure currency. However, if a Standards Committee revises its P & P prior to its next scheduled AudCom review, the Standards Committee shall immediately submit its revised P & P to AudCom for review and acceptance.

The Standards Committee P & P document accepted by AudCom shall be the official policies of that Standards Committee and shall reside online on the IEEE-SA Standards Board AudCom website. No other copy shall be designated as the official copy. Links to the IEEE-SA Standards Board AudCom website are encouraged.

4.2.4.2 AudCom review of Working Group P & P

It is the responsibility of the Standards Committee (see 5.1.2) to approve the P & P of its working groups involved in the technical development work of a standard. However, at any time, AudCom may-select a working group on which to conduct a WG P & P audit, from the various working groups that the Standards Committee has active at the time. At least one of a Standards Committee's WG P & P shall be subject to review by AudCom every five years to ensure currency. AudCom will conduct the review based on comparison to the then-current baseline WG P & P available from IEEE-SA.

AudCom will review the WG P & P of the selected working group and, if no issues are found, will report this to the IEEE-SA Standard Board. If issues are identified with the selected WG P & P, AudCom will suggest revisions. AudCom may also require review of additional WG P & P of other working groups for the Standards Committee. If issues are not resolved in a reasonable time, or significant issues are found among the WG P & P of several working groups, AudCom may recommend to the IEEE-SA Standards Board that the Standards Committee's Working Group P & P be considered "not accepted", and that the Standards Committee's standards development activities be stopped. If issues exist but progress is being made, AudCom may recommend to the IEEE-SA Standards Board that the Standards Committee's Working Group P & P be considered "visibly under development".

Stopping of standards development activities includes PAR submissions, Standards Association ballot activities, etc.

4.2.5 Patent Committee (PatCom)

This committee reviews patent letters of assurance and other patent information submitted to the IEEE Standards Department. It examines issues brought to its attention regarding IEEE Standards development and patents, and makes recommendations as appropriate.

4.2.6 Continuous processing of IEEE-SA Standards Board and committee agenda items

In order to reduce the time involved in standards development, the IEEE-SA Standards Board and its committees may use continuous processing through electronic technologies to consider appropriate agenda items. Each agenda item to be considered under this methodology shall be carefully appraised as to its suitability for this process. The IEEE-SA Standards Board and its committees should establish means for continuous processing according to their unique needs. These methods are publicly available by contacting the Secretary of the IEEE-SA Standards Board.

Any votes taken by the IEEE-SA Standards Board during continuous processing are subject to the provisions stated in subclause 5.1 of the *IEEE-SA Standards Board Bylaws*.

4.3 Forming a Standards Coordinating Committee (SCC)

The IEEE-SA Standards Board will consider petitions from persons who outline the desirability of an SCC type 1 or SCC type 2, defined in subclause 4.3.1 of the *IEEE-SA Standard Board Bylaws*.

4.3.1 Notification of affected IEEE Societies and Councils

A proposal to create a new SCC type 1 or SCC type 2 or to change the scope of an existing SCC shall first be submitted to all IEEE Society/Council Presidents whose scopes of activity are related to the program of work to be covered by the proposed SCC or affected by a proposed change in the scope of an existing SCC.

4.3.1.1 New SCC

For proposed new SCCs, the notification shall include

a) A scope of work for the SCC.

b) Supporting material demonstrating the need for and feasibility of the SCC.

c) A statement explaining why the SCC should undertake the development of standards in a particular subject area rather than the current committees of IEEE Societies or Councils.

d) A nominee for chair, including a statement of his or her willingness to serve.

e) A budget that estimates annual resource requirements and identifies sources of revenue to support the activity.

f) An opportunity for the IEEE Society/Council to oversee the work.

Notified Presidents shall be requested to respond to the notification indicating whether the IEEE Societies/Councils they represent would be willing to oversee the work. The response date should be set to be prior to the proposed submission to the IEEE-SA Standards Board. A period of at least three months should be given to respond to the notification.

4.3.1.2 Change in scope of an existing SCC

The notification for changes in the scope of an existing SCC shall include

a) The proposed scope change.

b) Supporting material demonstrating the need for and feasibility of the change.

c) Recommendations for any changes in oversight responsibility for current standards development activities.

d) Any change in budget and other resource requirements.

Notified IEEE Society/Council Presidents shall be requested to respond to the notification. The response should be set to be prior to submission of the proposed scope change to the IEEE-SA Standards Board. A period of at least three months should be given to respond to the notification.

4.3.2 Proposal to the IEEE-SA Standards Board

A proposal to create a new SCC type 1 or SCC type 2 or to revise the scope of an existing SCC shall be submitted to the IEEE-SA Standards Board. The proposal shall include all of the information in items a) through f) of 4.3.1.1 for new SCCs and in items a) through d) of 4.3.1.2 for changes in scope of an existing SCC that was submitted to the IEEE Society/Council Presidents. It shall also include documentation of any responses or indication of a lack of response from IEEE Society/Council Presidents.

Consideration of proposals for a new SCC or a change in scope of an existing SCC by the IEEE-SA Standards Board shall take no longer than six months without notification to the submitter.

In considering approval of a new SCC, the IEEE-SA Standards Board shall evaluate the need for and feasibility of the proposed SCC. If the IEEE Societies/Councils have indicated a willingness to serve as the Standards Committee(s), the IEEE-SA Standards Board will evaluate their expertise and breadth of knowledge to oversee the work.

For changes in an existing SCC scope, the IEEE-SA Standards Board shall evaluate the appropriateness of the scope change and the feedback received from the IEEE Society/Council Presidents.

If the formation or revised scope of the SCC is approved, the Chair of the IEEE-SA Standards Board shall formally notify the IEEE Society/Council Presidents and invite their participation by naming member(s) to the SCC from the various IEEE Societies/Councils. Notification shall also be sent to the members of the IEEE-SA BOG and announced in appropriate media.

4.4 Organization of SCCs

4.4.1 Membership

Membership in the IEEE-SA is encouraged for all SCC members.

4.4.2 Officers of an SCC

Each officer shall be an IEEE member of any grade except Student grade and shall be a member of the IEEE-SA.

The IEEE-SA Standards Board Chair shall appoint the chair of each SCC. The appointment shall be for the calendar year, but the SCC Chair may, at his or her discretion, serve until a successor is appointed.

Other SCC officers (e.g., vice chair and secretary) are chosen as provided in the approved SCC Operating Procedures.

The IEEE-SA Standards Board Chair has the authority to remove an officer of an SCC.

4.4.3 Membership in an SCC type 2

The members of an SCC type 2 and its subcommittees are appointed by one or more of the following:

a) The SCC Type 2 Chair,

b) An IEEE Society,

c) The IEEE-SA Standards Board.

4.5 Responsibilities of SCCs

The chair of an SCC (types 1 and 2) shall submit a written report each year to the IEEE-SA Standards Board for approval. This report should contain the scope, activities, budget and expenses, and meeting schedules, along with the list of participants in standards projects during the prior year. The list shall indicate the IEEE membership status and society affiliation of each member of the SCC. The SCC chair may also be asked to give an oral report to the IEEE-SA Standards Board every three to four years.

Interested Societies of the IEEE may designate members to an SCC who then function as official representatives of the Society. The IEEE-SA Standards Board may designate representatives of outside organizations as additional members.

Each member of an SCC who is an official representative of a Society, technical committee, or outside organization may have a single designated alternate to act on behalf of the member in his or her absence. Alternates for other members shall not be permitted.

An SCC may establish subcommittees as necessary to perform its function. The formation of non-technical (e.g., administrative) subcommittees requires prior approval by the IEEE-SA Standards Board.

4.6 Disbanding a Standards Coordinating Committee (SCC)

The IEEE-SA Standards Board should consider the disbandment of an SCC if any of the following applies:

— The SCC leadership is nonresponsive to requests for annual reports, minutes, or status.

— The membership or activity of the SCC is no longer representative of its stated scope.

— The SCC’s P & P are found to be deficient or out of date and the SCC does not initiate corrective action.

— There is no current SCC chair and a suitable replacement chair cannot be found.

—- The requirement to submit a written, annual report to the IEEE-SA Standards Board is not met.

— There have been no meetings of the SCC or any of its subcommittees within the last 12 months and none are scheduled.

— Coordination is no longer needed and an IEEE Society/Council is willing to assume responsibility for the SCC’s standards.

— The SCC requests dissolution.

5. Standards development

5.1 Standards Committee

Standards Committees are defined in subclause 5.2.2 of the *IEEE-SA Standards Board Bylaws*.

5.1.1 Responsibilities of the Standards Committee

The Standards Committee shall be responsible for the development and coordination of the standards project, and for supervising the standards project from inception to completion. The Standards Committee also shall be responsible for the maintenance of standards after their approval by the IEEE-SA Standards Board. As part of this responsibility, each Standards Committee shall operate in accordance with a written set of policies and procedures (P & P) that have been accepted by the IEEE-SA Standards Board. Such P & P shall not be in conflict with the *IEEE-SA Standards Board Operations Manual*. Standards Committees should note that there are model operating procedures (e.g., individual, entity, SCC Type 1, or SCC Type 2) available for use by the Standards Committee.

If a Standards Committee's P & P has been in force for five years and the Standards Committee determines that its standards activities should remain active, the Standards Committee shall submit its P & P, or an extension request, to the AudCom Administrator. AudCom will make a recommendation to the IEEE-SA Standards Board whether or not to accept its P & P or the extension. An extension request may be granted for one or more years.

If the Standards Committee does not submit its Standards Committee P & P or an extension request, and the P & P has reached the deadline authorized in the P & P approval letter or a previous extension approval letter, the Standards Committee P & P shall be subject to administrative withdrawal.

In the case of a Standards Committee that is a committee of an IEEE Society, the Society may develop a common set of P & P for standards development that is applicable to all Standards Committees in that Society. Individual Standards Committees within the Society may have specific P & Ps in addition, but these shall not be in conflict with the Society P & P. The P & P for the Standards Committee shall define the process by which the Standards Committee handles appeals (see subclause 5.4 of the *IEEE-SA Standards Board Bylaws* and 5.8).

5.1.2 Duties of the Standards Committee

5.1.2.1 Mandatory requirements

Supervision of a standards project by the Standards Committee includes the following mandatory requirements:

a) Submit a properly completed Project Authorization Request (PAR) for IEEE-SA Standards Board approval within six months of the first decision to initiate the project. Forms and information may be obtained from the NesCom Administrator (see 5.2).

b) After approval of the project, work with the IEEE Standards Department Staff to give notice of the project in appropriate publications and to appropriate entities, for the purpose of soliciting an expression of interest in the work of the Standards Committee.

c) Ensure that mandatory coordination requirements are accomplished (see 4.2.3.2 and 5.4.4).

d) Organize the technical development work on the standard.

e) Access and use IEEE's data, including personal data, from IEEE systems for the purposes intended, including to support the technical development work on the standard, and only in compliance with IEEE or IEEE-SA Privacy and data privacy policies.

f) Notify persons who have expressed interest in the time and the place of meetings as specified in the P & P of the Standards Committee (see 5.1.1).

g) Ensure that all meetings involving standards are open to all interested parties.

h) Conduct the Standards Association ballot and IEEE Public Review in accordance with these procedures (see 5.4).

i) Submit the proposed standard together with the submittal form to the IEEE-SA Standards Board.

j) Submit annually to IEEE-SA Staff an electronic list of persons participating in standards projects during the prior year.

k) Without exception, the Standards Committee shall ensure the submission of an annual financial report(s) for the operation of the Standards Committee and all of its standards development subgroups (e.g., working groups, task groups). Those groups operating without treasury are required to submit an annual declaration thereof via the report (see 5.3.6).

l) Monitor standards developing committees and duly authorized IEEE-SA activities (e.g., Industry Connection activities) for signs of dominance by any single interest category, individual(s), or organization(s). If dominance is suspected, the Standards Committee shall immediately notify the Secretary of the IEEE-SA Standards Board and should recommend corrective action(s) to the IEEE-SA Standards Board (see *IEEE-SA Standards Board Bylaws* Clause 5.2.1.3).

m) If a Working Group (WG) was created for technical development work on a standard, ensure that a written set of WG policies and procedures (P & P) is created and approved by the Standards Committee. Such P & P shall not be in conflict with the *IEEE-SA Standards Board Operations Manual*. Standards Committees should note that IEEE-SA Standards Board maintains a baseline WG P & P, and may occasionally request to review a Standards Committee's WG P & P for alignment.

5.1.2.2 Joint development projects

For projects that are jointly developed by IEEE Standards Committees, a primary Standards Committee and other Standards Committees shall be indicated on the PAR; project oversight will be performed using the P & P of the primary Standards Committee.

After a PAR has been approved, the addition/deletion of a Standards Committee or a change of the primary Standards Committee requires the submission of a Modified PAR. Any Standards Committee may withdraw from the project at any time without unanimous approval of the project's other Standards Committees prior to submission of the Modified PAR. A change to the primary Standards Committee requires the unanimous approval of the project's Standards Committees prior to submission of the Modified PAR.

Unanimous approval of the project's Standards Committees is required in order to withdraw a joint development project.

Requests to update a jointly developed document via an amendment or corrigendum shall be submitted to the primary Standards Committee; the primary Standards Committee is required to seek concurrence of all other joint development Standards Committees in the decision of whether or not to submit a PAR to address a requested update.

In addition to Working Group members, the administrative committee (AdCom) or the executive committee (ExCom) of each joint development Standards Committee shall have access to pre-Standards Association-ballot drafts.

5.1.2.3 Disclosure of affiliation

The Standards Committee is responsible for ensuring that participants are notified of their obligation to disclose their affiliation(s), which includes employer(s) and any other affiliation(s). Each participant's affiliation(s) shall be disclosed during any standards development activity (e.g., during meetings and Standards Association balloting).

During standards development meetings, the Working Group Chair or the Chair's delegate shall inform participants of the definition of, and requirement for, disclosure of affiliation(s) and possible penalties for non-compliance (see 5.2.1.5 of the *IEEE-SA Standards Board Bylaws*). This disclosure of affiliation shall be via a sign-in (e.g., sign-in sheet, electronic sign-in, verbal disclosure, or electronic communication) that provides for disclosure of affiliation(s). The minutes of each Working Group or other subgroup meeting shall record a list of participants in the meeting, and the disclosed affiliation(s) of each participant.

Whenever an individual is aware that the ownership of his or her affiliation(s) may be material to the process, or when the Standards Committee or the IEEE-SA Standards Board requests, that individual shall also declare the "ultimate parent entity" of their affiliation(s). The ultimate parent entity is an entity that directly or indirectly, through one or more intermediaries, controls the entity identified as the individual's affiliation. For the purposes of this definition, the term "control" and its derivatives, with respect to for-profit entities, means the legal, beneficial or equitable ownership, directly or indirectly, of more than fifty percent (50%) of the capital stock (or other ownership interest, if not a corporation) of an entity ordinarily having voting rights. "Control" and its derivatives, with respect to nonprofit entities, means the power to elect or appoint more than fifty percent (50%) of the Board of Directors of an entity.

5.1.2.4 Nondisclosure and false or misleading disclosure

A participant who fails to disclose all affiliation(s) shall not accrue any participant rights, including rights of or towards voting membership or ballot participation, until such disclosures have been made. Failure to disclose affiliation(s), or materially false or misleading disclosure of affiliation, shall result in loss of membership or balloting privileges, and may also result in loss of other participation privileges within the IEEE-SA for such participants and any affiliated entities.

The Working Group should review the adequacy of disclosures. If a Working Group Chair becomes aware of a participant who provides potentially false or misleading disclosure, the participant shall be notified and requested to clarify the disputed affiliation. If the participant continues to provide potentially false or misleading disclosure, or fails to provide the requested clarification, the Working Group Chair shall notify the Standards Committee.

The Standards Committee of the project shall, when notified by the Working Group Chair or when appropriate, review the adequacy of disclosures. If the Standards Committee deems the disputed affiliation inadequate, then the participant shall be notified that, unless addressed, the Standards Committee will submit the disputed affiliation and recommended corrective action(s) to the Secretary of the IEEE-SA Standards Board for review by the IEEE-SA Standards Conduct Committee.

During Standards Association balloting, if a potentially false or misleading disclosure of affiliation is identified, the Standards Committee, Working Group Chair, or ballot designee shall notify the participant in the Standards Association ballot and request that the participant clarify the disputed affiliation. If the participant continues to provide potentially false or misleading disclosure, or fails to provide the requested clarification, the Standards Committee, Working Group Chair, or ballot designee shall submit the disputed affiliation and corrective action(s) recommended by the Standards Committee to the Secretary of the IEEE-SA Standards Board for review by the IEEE-SA Standards Conduct Committee (see subclause 6.6.1 of the *IEEE Standards Association Operations Manual* for details regarding the IEEE-SA Standards Conduct Committee).

5.1.3 Statements to external bodies

Each Standards Committee shall have policies and procedures in place concerning the creation and handling of

public statements prior to sending any such statements in any format to any body other than the IEEE Standards Association. These procedures should state a means for developing and approving Standards Committee statements and a methodology for presentation of those statements. These procedures shall also conform both to the IEEE-SA procedures as administered by the IEEE-SA Board of Governors (BOG) and set forth in subclause 6.5 of the *IEEE Standards Association Operations Manual* and to the rules in Section 15 of the *IEEE Policies*.

Each statement shall clearly identify the group creating this statement in its opening paragraph, and shall include in that paragraph, or a footnote thereto, the exact sentence that "this document solely represents the views of *name of group* and does not necessarily represent a position of either the IEEE or the IEEE Standards Association." If the public statement addresses safety, that statement shall be reviewed and approved in writing by IEEE legal counsel prior to issuance.

Upon issuance of all such public statements, electronic copies shall be sent to the Secretary of the IEEE-SA Standards Board and to the Secretary of the IEEE-SA BOG.

If the Standards Committee wants to issue an entity position statement on standards that represents the viewpoint of the IEEE Standards Association, the rules in the *IEEE Standards Association Operations Manual* shall be followed. Approval from the IEEE-SA BOG shall be obtained prior to a Standards Committee requesting another IEEE entity (as defined in Section 15 of the *IEEE Policies*) to offer a position statement on a standards matter.

5.1.4 Standards publicity

5.1.4.1 Press releases

Standards Committees are encouraged to prepare press releases to promote their activities. IEEE Standards staff is available to assist in the preparation of press releases.

Copies of all press releases developed by Standards Committees shall be submitted to the Secretary of the IEEE-SA Standards Board. Copies may be supplied electronically. If the press release has been made available on a public website, the URL shall be supplied as well. Press releases may be made available on the IEEE Standards website, or links to existing websites may be provided to aid users in locating appropriate standards press releases.

5.1.4.2 Other forms of publicity

Standards Committees are encouraged to use all means possible to promote their standards and standards activity. IEEE Standards staff is available to assist in standards promotion.

Copies of any articles from Standards Committees concerning an IEEE standards activity submitted to publications shall be submitted to the Secretary of the IEEE-SA Standards Board. Copies may be supplied electronically. If the article has been made available on a public website, the URL shall be supplied as well. Articles may be made available on the IEEE Standards website, or links to existing websites may be provided to aid users in locating appropriate standards promotional material.

5.2 Project authorization

No formal activity shall take place after six months from the day of the first meeting of the Working Group or PAR Study Group without formal submittal of a PAR to the IEEE-SA Standards Board and assignment of a project number, unless a single extension of six months for that activity is provided by the Standards Committee (see 5.1.2). The Standards Committee shall include a rationale in its meeting minutes when granting the extension. A PAR Study Group is a subgroup of the Standards Committee or Working Group that is responsible for evaluating whether a standard should be developed and, if so, to complete a PAR form for Standards Committee consideration. Only the NesCom Administrator has the authority to assign project numbers (see the IEEE-SA Project Numbering Policy).

The Standards Committee shall submit the original signed copy of the PAR to the NesCom Administrator. This original PAR shall be submitted prior to the submittal deadline specified. For the first three quarterly meetings of the year, the submittal deadline shall be at least 40 days before the meeting of the IEEE-SA Standards Board. For the last quarterly meeting of the year, the submittal deadline shall be at least 50 days before the meeting of the IEEE-SA Standards Board. The individual signing the PAR shall be an IEEE-SA member.

At the time of PAR submission, the Standards Committee shall state the type of Standards Association balloting group that will be formed to ballot the standard (see 5.4.1).

Any PAR that includes a change of the Standards Committee shall be submitted to the NesCom Administrator, accompanied by letters of agreement from both the Standards Committee ceding responsibility and the Standards Committee accepting responsibility.

After the PAR has been approved by the IEEE-SA Standards Board, the PAR form becomes an important part of the project file for the standard and is referred to at the time that a standard is submitted for IEEE-SA Standards Board approval. It is important for standards-writing committees to examine the approved PAR periodically in order to make certain that its information is current as shown on the form. This will minimize delays in obtaining approval of final submittals.

For standards and their amendments that may be submitted to international standards-developing organizations, the project chair should supply a coordination plan to the IEEE-SA Standards Board during the draft development of the standard that will illustrate the plan they will follow to coordinate the necessary multiple approvals.

If a standards project has not been completed by the four-year deadline authorized in the PAR and the Standards Committee determines that the project should remain active, the Standards Committee shall complete the IEEE-SA Standards Board Extension Request Form and submit it to the NesCom Administrator. NesCom will make a recommendation to the IEEE-SA Standards Board whether or not to approve the extension to the PAR. A PAR extension may be granted for one or more years.

If the Standards Committee does not submit an IEEE-SA Standards Board Extension Request Form and the standards project has reached the deadline authorized in the PAR approval letter or a previous extension approval letter, the standards project shall be subject to administrative withdrawal.

5.3 Standards development meetings

5.3.1 Objective

The objective of IEEE standards development meetings is to develop and produce IEEE standards documents. All participants in IEEE standards development meetings are encouraged to produce standards that address the technical needs of their industry and that are feasible, timely, and of high quality.

5.3.2 Standards Committees

Standards Committees are responsible for managing and hosting meetings whose purpose is to facilitate development of IEEE Standards. These series of meetings operate on a break-even basis and are not operated to generate a profit in the long term. The following subclauses specifically address this additional role of managing and hosting standards development meetings.

5.3.3 Standards development meetings

Standards development meetings are to be conducted consistent with the principle of openness. Participants in a Working Group may include members and non-members when the requirements to gain membership are specified in Standards Committee or Working Group P & P. A 'meeting' includes any convening for which notice was

required to be given or for which membership-credits or other participation rights are either earned or exercised. Meetings may be in-person or may be via electronic means, as appropriate.

While a Working Group may maintain its own list of participants to track membership status, the authoritative list of participants is maintained in an IEEE-SA database. Only those authorized to access and use IEEE's data, including personal data, from IEEE systems are permitted to do so, for the purposes intended, including to support the technical development work on the standard, and only in compliance with IEEE or IEEE-SA Privacy and data privacy policies.

5.3.3.1 Job recruiting

Job recruiting at IEEE Standards meetings is inappropriate and is actively discouraged. However, posting of notices of job opportunities by employers and of notices of jobs sought may be permitted at IEEE Standards meetings only if approved by the Standards Committee.

5.3.3.2 Recordings of the proceedings of standards development meetings

IEEE-SA applies restrictions on recording the proceedings of IEEE standards development meetings. Restrictions include, but are not limited to, the usage of audio recording, video recording, and photography by participants or observers.

An officer of the Working Group or one of its subgroups, unless prohibited by the P & P of the Standards Committee or Working Group, is permitted to record, via either audio or slideshow recording only, the proceedings of an IEEE standards development meeting for which he or she is responsible. Recording of the proceedings by any other participant or observer, in part or in whole, via any means, is prohibited.

The Working Group or subgroup officer shall use the recording exclusively for the purpose of generating minutes. The officer shall not copy or further distribute the recording. Once the meeting minutes have been prepared, the officer shall delete the recording.

Any IEEE standards development meeting may be recorded for preparation of the meeting minutes as described above. If recording is expected to occur, the following steps shall be taken:

— The intent to record for preparation of the meeting minutes shall be noted on the distributed agenda.

— At the beginning of the meeting, the Chair or designee shall announce the intent to record the meeting and shall notify participants that remaining in the meeting is an agreement to be recorded.

— The fact of the announcement to record the meeting shall be included in the meeting minutes.

5.3.3.3 Press attendance

Normally, individuals from the press are not encouraged to attend standards meetings. If the press is in attendance, the chair should announce press attendance. Normal meeting fees are not expected to be waived for the press.

5.3.3.4 Commercial activities

Exhibits of vendor products, distribution of literature, sales presentations, and similar activities are discouraged at standards meetings as they detract from and compete with the normal standards development process.

5.3.4 [*Placeholder*]

5.3.5 Meeting expenses

A Standards Committee may choose to set a meeting fee as a means of offsetting the costs of meeting administration, logistics, and other similar costs of standards development.

The Standards Committee assumes the entire risk of deficit; i.e., if a deficit is incurred in the operation of a meeting, that deficit is chargeable against the Standards Committee. Conversely, if a surplus results from the operation, the surplus will be credited to the Standards Committee.

5.3.6 Annual financial report

All Standards Committees shall ensure the annual certification of detailed financial activity via the IEEE-SA online financial reporting tool. The report is due by 15 February of each year for the previous fiscal year's activity. Failure to submit this report shall result in action from the IEEE-SA Standards Board. Entry of financial transactions shall be completed within 45 days of the end of each fiscal quarter (March, June, September, and December) and shall be considered delinquent if not submitted by that time. If two deadlines in one fiscal year are missed, the non-compliant group shall then be required to enter financial transactions on a monthly basis through the end of the following year. If missed deadlines continue, any of the following actions may be taken by the SASB:

— Removal of the Treasurer

— Removal of the Officers

— Suspension of all activities of the non-compliant group until the report is filed and accepted as complete

5.3.7 Bank accounts

All IEEE standards development committees that have or intend to have bank accounts shall use the IEEE Concentration Banking Program as their only bank account. It is the policy of the IEEE that all bank accounts provide for the signatures of at least two volunteers (who shall be IEEE Member grade or higher in good standing).

Bank accounts shall be closed six months after the standards development activity has ceased and if further projects are not planned. Closing bank statement(s) shall be submitted to the IEEE-SA BOG and the relevant IEEE Society with the final budget report.

5.3.8 Auditing of finances

All Standards Committees with actual income or expenses of US $250,000 or more per year shall be audited by a fully qualified, independent professional auditor. The Standards Committee may select an outside accounting firm, another fully qualified resource, or the IEEE Internal Audit Department to arrange for and perform the audit. The selection of such auditors should avoid any conflict of interest with members of the relevant Standards Committees. If the IEEE Internal Audit Department is selected to provide the auditing service, all required documentation is due no later than 15 March. If prepared by an independent auditor, the contract/MOU for their services is due to the IEEE Internal Audit Department by 15 March; the final and complete audit report shall be submitted to the IEEE Internal Audit Department by 30 April.

Standards Committees with more than US $25,000 but less than US $250,000 in income or expenses per year may be audited. The IEEE Internal Audit Department is responsible for scheduling and arranging for the audits of these Standards activities. For those Standards Committees not scheduled for an Internal Audit review in a given year, an informal review should be conducted by a committee composed of individuals who have no direct or indirect responsibility for the financial transactions of the Standards Committee.

All audit fees, as determined by the IEEE Internal Audit Department, shall be incorporated in the budgets of Standards Committees and displayed as a separate line on budget reports.

The IEEE Internal Audit staff shall assure that committee financials are audited in accordance with the guidelines

developed for this purpose.

5.3.9 Closings

All IEEE standards development committees with meeting income or expenses of US $25,000 or greater per meeting shall complete the following tasks within six months of cessation of the IEEE standards development activities:

— Close bank accounts;

— Distribute any surplus as directed by the IEEE-SA BOG;

— Complete final financial reports;

— Complete the audit, if required.

Many of these tasks are required by United States Internal Revenue Service regulations and by the audit process. Documentation concerning these tasks shall be reviewed by the IEEE-SA BOG and the relevant IEEE Society, where applicable.

5.3.10 Legal compliance and other issues

5.3.10.1 Compliance with laws

All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws. In the course of IEEE standards development, participants shall not engage in fixing product prices, allocating customers, dividing sales markets, or other conduct that violates antitrust or competition laws.

5.3.10.2 Discussion of litigation, patents, and licensing

No discussions or other communications regarding the following topics shall occur during IEEE-SA working group standards-development meetings or other duly authorized IEEE-SA standards-development technical activities:

— The status or substance of ongoing or threatened litigation

— The essentiality, interpretation, or validity of patent claims

— Specific patent license terms or other intellectual property rights, other than distribution of Accepted Letters of Assurance as permitted under the IEEE-SA patent policy (see 6.2 of the *IEEE-SA Standards Board Bylaws*)

5.3.10.3 Discussion of relative cost/benefit analyses

When comparing different technical approaches in IEEE-SA standards development technical activities, participants may discuss the relative costs (in terms, for example, of percentage increases or decreases) of different proposed technical approaches in comparison with the relative technical performance increases or decreases of those proposals. The relative costs may include any potentially Essential Patent Claims, but not the price at which compliant products may or will be sold. Technical considerations should be the main focus of discussions in IEEE-SA standards development technical activities.

5.3.11 Naming meetings and use of IEEE logo

This policy applies to naming all Standards Committee activities.

— The meeting title shall include “IEEE” for identification purposes.

— The name of a meeting shall be used in all publicity and all related material pertaining to the meeting, including electronic mail.

Standards Committee activities shall have the IEEE logo on all promotional material and publications.

5.3.12 Contracting

IEEE Standards meetings may require contracts for various services. These services include but are not limited to hotel services and meeting management services.

The Standards Committee or designee shall review all contracts connected with running a meeting. Contracts are subject to limitations as defined in IEEE Policy 12.6 and subclause 5.1.3 of the *IEEE Standards Association Operations Manual*.

All meeting contracts shall be maintained in a readily accessible file at the IEEE Standards Department for audit purposes. It is the responsibility of the Standards Committee chair or working group chair to send a copy of the contract, when executed, to the IEEE Standards Department promptly for retention within the IEEE.

In signing a contract, competitive bidding procedures shall be used whenever practical. If competitive bidding is not practiced, the Standards Committee or working group chair shall be prepared to provide justification.

5.3.13 Insurance

All Standards Committees with annual meeting budgets or expenses for the IEEE of US $25,000 or greater are responsible for obtaining necessary insurance coverage for their meetings if this is not covered in established contracts with meeting facilities. The IEEE can provide such coverage as stipulated in the *IEEE Financial Operations Manual*.

5.3.14 Tax liability

The IEEE is a non-profit organization, incorporated in New York State, USA. IEEE holds standards meetings throughout the world, and the legal and tax requirements can vary greatly for each site. In the United States, the IEEE is exempt from paying income taxes and is also exempt from paying sales taxes on purchases in some states. Some states require sales taxes to be collected on-site for sales of books and other items. Order taking can be done without consideration of sales taxes.

Outside of the USA, there are other sales taxes that may be required to be collected at IEEE Standards meetings for on-site sales, such as Value Added Tax (VAT) and the Goods & Services Tax (GST) in Canada. It may be required to collect such taxes on meeting fees. There are also exemptions from paying VAT and GST and the rules are unique by country. In most countries, but not all, the IEEE is exempt from paying income taxes.

Because the laws and requirements of each country, state and province vary, it is very important that each Standards Committee contact the IEEE Tax Compliance Office (tax-staff@ieee.org) to find out the specific legal and tax requirements to operate at their site. This must be done very early in the planning stages of the conference; if planned properly, large savings may result.

Financial support by industry of IEEE-SA Standards meetings and events is acceptable. All such support shall not violate the not-for-profit status of the IEEE.

5.4 Standards Association ballots

A Standards Association balloting group shall be one of the following:

— Individuals with voting privileges

— Persons with voting privileges who are of any category other than individual

All Standards Association ballots shall be conducted by the IEEE Standards Balloting Center.

All Standards Association ballots shall be conducted by electronic means.

IEEE-SA shall maintain a single authoritative database for the list of members of the Standards Association balloting group. A request for a Standards Association balloting group membership list shall be submitted to the Standards Committee Chair. The Standards Committee Chair shall then forward such request to the IEEE-SA staff liaison for that Standards Committee. The IEEE-SA staff liaison shall fulfill the request if the standard has been approved or upon its approval. For individual-based balloting, the supplied membership list shall consist of each member's name, affiliation, and interest category. For entity-based balloting, the supplied membership list shall consist of each entity's name, the entity's designated primary voting representative (and, if designated, the alternate voting representative), entity affiliation, and entity interest category.

5.4.1 Balloting group

The balloting group shall meet the criteria in subclause 5.2.2.3 of the *IEEE-SA Standards Board Bylaws*. Balloting group members have an obligation to respond during the balloting period; failure to return a ballot may disqualify the balloter from participation in future Standards Association balloting groups. The balloting group shall provide for the development of consensus by all interests significantly affected by the scope of the standard. This is achieved through a balance of such interests in the balloting group membership. Balance is achieved by not permitting any single interest category to comprise more than one-third of the Standards Association balloting group.

No balloter shall have more than one vote.

Balloters are required to classify their relationship to the balloting group relative to the scope of standards activity (for example, producer, user, and general interest). Where appropriate, additional classifications, such as "testing laboratory" or "academic," may be added by the Standards Committee. This decision should be based on the effect the standard may have on participants not already recognized by the primary classifications. Individuals classify themselves based on their technical background, which may be related to their employment, job functions, or experience. IEEE-SA entity balloters are classified based on their entity interest as it relates to the scope of the standards project (for example, producer, consumer, general interest). No single classification (interest category) is permitted to constitute more than one-third of the Standards Association balloting group membership. Care shall be taken to ensure that all classes of interest are represented to the extent possible.

It is desirable to have representation of the materially interested and affected parties when reviewing the balance of the balloting group. Standards Committees shall ensure balance prior to conducting a Standards Association ballot. Balloting groups of individuals should have at least 10 members to ensure adequate balance.

Interested or affected persons who pay the appropriate fees associated with voting privileges may join the Standards Association balloting group for a specific standards project. Once the ballot has begun, the balloting group is closed to additional participants. Even if IEEE-SA membership status changes during the balloting period or recirculation period, there shall be no change to the voting status of the balloter with respect to that ballot.

5.4.1.1 Balloting group made of entities

Several distinct rules apply to Standards Association ballots by entities. For each Standards Association balloting group, each such entity shall name one primary voting representative and, at the entity's option, one alternate voting

representative to the Standards Committee. Only a ballot from one of these representatives shall be accepted. If ballots are received from other parties, they shall not be counted; if ballots are received from both the primary voting representative and the alternate voting representative, only the vote from the primary voting representative shall be counted.

Each primary and alternate voting representative can ballot for only one entity; no one representative can represent the interests of more than one entity. Each representative shall declare what entity he or she represents and that their voting shall be independent of any other entity.

In order to be a voting member in a particular Standards Association ballot, each entity's representative shall declare that the interests of that entity are not knowingly represented by another member of the Standards Association balloting group and that the entity is not knowingly funding directly or indirectly the participation of another person in that Standards Association ballot for the purposes of influencing the outcome of the vote. Any entity representative who cannot make such a declaration shall not be able to be a voting member in that particular Standards Association ballot.

It is desirable to have representation of the materially interested and affected parties when reviewing the balance of the balloting group. Standards Committees shall ensure balance prior to conducting a Standards Association ballot. Balloting groups shall have at least five members to ensure adequate balance.

In the event that, through merger or acquisition or other similar event, an entity member of the IEEE-SA has its assets totally or substantially transferred to another entity, membership in the Standards Association balloting group may be transferred to the new entity, provided that the new entity is not already a member of the Standards Association balloting group.

5.4.2 Ballot invitations

Standards Association balloting groups shall be formed by means of ballot invitations conducted by the IEEE Standards Balloting Center. A ballot invitation is sent to all parties known by the Standards Committee to be interested in the subject matter of the proposed standard. Information about Standards Association ballot invitations shall also be made available at the IEEE Standards website to allow additional interested parties the opportunity to participate.

Ballot invitations shall remain open for a period of no less than 15 days. Those who respond affirmatively to the invitation during the period in which the ballot invitation is open and who otherwise fulfill the criteria in both subclause 5.2.2.3 of the *IEEE-SA Standards Board Bylaws* and 5.4.1 shall become members of the Standards Association balloting group for that proposed standard. If a ballot does not open within 6 months of the invitation close date, the ballot group will be considered invalid and the Standards Committee shall conduct a new invitation. Once the Standards Association ballot has begun, no changes shall be made to the membership of the balloting group.

5.4.3 Conduct of the standards balloting process

When a proposed standard is ready for Standards Association balloting, balloting shall be conducted by the Standards Committee or designee via the IEEE Standards Association balloting tools. The standards balloting process consists of Standards Association balloting group members casting votes, with or without accompanying comments, in one or more successive ballots until completion of the standards balloting process. Standards Association balloting group members shall submit votes and comments in a manner and in a format compatible with approved IEEE Standards Association balloting tools. Comments may be submitted against any normative or informative content of the ballot document, except for the Notice to Users section and the list of members of the Standards Association balloting group.

The Standards Committee shall ensure that comment resolution occurs via a comment resolution group, which is a subgroup of the working group.

The ballot process may include communication among the Standards Committee's comment resolution group and Standards Association balloting group members regarding the substantive merits and possible resolution of comments. However, no comment resolution member, Standards Association balloting group member, or other participant in IEEE standards development shall intimidate or coerce a specific vote from any Standards Association balloting group member.

5.4.3.1 Ballot term

Each ballot in the standards balloting process shall close at 23:59 UTC-12[4] on the closing date specified on the ballot. The length of the ballot and associated recirculations is set by the Standards Committee. The initial ballot term shall be at least 30 days in duration. The recirculation ballot term shall be at least 10 days in duration.

The Standards Committee shall assess the return rate of the first ballot, where the return is the ratio of the sum of Standards Association balloting group members' *Approve*, *Do Not Approve*, and *Abstain* votes to the count of Standards Association balloting group members.

In the first ballot, if the ballot has not achieved a 75% return by the specified closing date, the ballot may be extended to close when a 75% return is received. This extension for receipt of a 75% return shall not be longer than 60 days.

5.4.3.2 Voting in the ballot

The ballot shall provide the following vote choices to Standards Association balloting group members:

a) *Approve (Affirmative).* This vote may be accompanied by comments suggesting corrections and improvements. All comments shall be considered; making a change to the proposed standard as a result of the comments is left to the discretion of the Standards Committee.

b) *Do Not Approve (Negative with comment).* This vote must be accompanied by one or more specific objections with proposed resolution in sufficient detail so that the specific wording of the changes that will cause the *Do Not Approve* voter to change his or her vote to *Approve* can readily be determined. The Standards Committee shall encourage the submission of comments with all *Do Not Approve* ballots.

   Balloters who vote *Do Not Approve* shall be permitted to differentiate those comments that caused their *Do Not Approve* vote from other comments that they may wish to submit. Any comments that are explicitly identified not to be part of the *Do Not Approve* vote shall be treated as comments associated with an *Approve (Affirmative)* vote.

   If no comments are submitted associated with the *Do Not Approve* vote, then the vote shall be counted in the total tally of votes as a *Do Not Approve (Negative without comment)*.

   If i) all comments associated with a *Do Not Approve* vote are deemed by the Standards Committee as out-of-scope and ii) the balloter is notified that the comment(s) are out-of-scope and such notifications are accompanied with specific rationale for such out-of-scope determination, then the vote may be counted in the total tally of votes as a *Do Not Approve (Negative without comment)*.

   During a recirculation ballot, *Do Not Approve* voters may indicate acceptance of the response to any or all comments associated with their *Do Not Approve* vote. Each *Do Not Approve* voter shall be given an opportunity to review comment responses, determine if he or she is satisfied, either entirely or in part, and either to change his or her vote to *Approve*, to *Abstain*, or to retain his or her *Do Not Approve* vote.

[4]UTC is Coordinated Universal Time.

c) *Abstain.* This category is provided to allow for ballot returns from Standards Association balloting group members who do not wish to vote *Approve* or *Do Not Approve* because of conflict of interest, lack of expertise, or other reasons.

During a recirculation ballot, Standards Association balloting group members shall have an opportunity to cast votes or change their previously cast votes.

5.4.3.3 Comments in the ballot

The Standards Committee's comment resolution group shall consider all comments that are received by the close of the ballot.

Standards Committees shall provide evidence of the consideration of each comment via approved IEEE Standards Association balloting tools. Such evidence shall include (i) an indication of whether the resolution proposed by the comment was accepted, revised, or rejected and (ii) for comments that are not accepted verbatim, an explanation for the rejection of the comment or for revision of the change proposed by the commenter.

The Standards Committee's comment resolution group shall make a reasonable attempt to resolve all *Do Not Approve* votes that are accompanied by comments.

Until the proposed standard has achieved 75% approval, comments can be based on any portion of the proposed standard. Comments not based on the proposed standard may be deemed out-of-scope of the standards balloting process by the Standards Committee.

Once the proposed standard has achieved 75% approval, comments in subsequent ballots shall be based only on the changed portions of the balloted proposed standard, portions of the balloted proposed standard affected by the changes, or portions of the balloted proposed standard that are the subject of unresolved comments associated with *Do Not Approve* votes. If comments are not based on the above criteria, the comments may be deemed out-of-scope of the recirculation. Such comments need not be addressed in the current standards balloting process and may be considered for a future revision of the standard.

Comments addressing grammar, punctuation, and style, whether attached to an *Approve* or a *Do Not Approve* vote, may be referred to the publications editor for consideration during preparation for publication. It should be borne in mind that proposed standards are professionally edited prior to publication.

Comments received before the close of ballot from participants who are not in the Standards Association balloting group, including from the mandatory coordination entities, require presentation to the Standards Committee's comment resolution group for consideration. The Standards Committee shall send an explanation of the disposition of the mandatory coordination comments to the commenter.

5.4.3.4 Recirculation ballots

Changes may be made to the proposed standard in response to comments or for other reasons. All substantive changes made since the last ballot of the proposed standard shall be identified and recirculated to the Standards Association balloting group. All unresolved *Do Not Approve* votes with comments shall be recirculated to the Standards Association balloting group. The verbatim text of each comment, the name of the *Do Not Approve* voter, and a response by the Standards Committee conducting the resolution of comments shall be included in the recirculation ballot package. Responses to comments that are not accepted verbatim shall include sufficient detail for Standards Association balloting group members to understand the rationale for rejection of the comment or revision of the change proposed by the commenter.

Further resolution efforts, including additional recirculation ballots, shall be required if *Do Not Approve* votes with new comments within the scope of the recirculation are submitted.

The Standards Committee is not required to conduct a recirculation ballot solely for *Do Not Approve (Negative without comment)* votes.

5.4.3.5 Completion of the standards balloting process and submittal to RevCom

A minimum of 75% of those voting *Approve* or *Do Not Approve (Negative with comment)* must approve the draft in order to submit the ballot result to the IEEE-SA Standards Board. In the event that 30% or more of the returned ballots are *Abstentions*, the standards balloting process shall be considered invalid.

In the event that a 75% return cannot be obtained, the standards balloting process is considered to have failed and further disposition of the proposed standard shall be the responsibility of the Standards Committee.

Once all required recirculations have been completed and 75% approval has been achieved, the IEEE requirements for consensus have been met. Efforts to resolve *Do Not Approve* votes may continue for a brief period; however, if such resolution is not possible in a timely manner, the Standards Committee should forward the submittal to RevCom because the IEEE has an obligation to the majority to review and publish the proposed standard quickly.

Copies of all unresolved *Do Not Approve* votes, together with the reasons given by the *Do Not Approve* voters and the responses by the Standards Committee, shall be included with the ballot results submitted to RevCom.

The Standards Committee shall, if not included in a recirculation package, provide to the *Do Not Approve* voter and to RevCom an explanation why any comments associated with a *Do Not Approve* vote were not required to be recirculated. In order for a *Do Not Approve* vote to be changed to an *Approve* or *Abstain* vote, the Standards Committee shall obtain and provide to RevCom written confirmation from each voter (by letter, fax, or electronic mail) that indicates concurrence with any change of his or her vote. Any *Do Not Approve* vote with comment that RevCom is asked to consider as a *Do Not Approve (Negative without comment)* shall be explained to RevCom.

5.4.3.6 Death or incapacity of a member of the Standards Association balloting group

In the event that the IEEE Standards Department receives documentation of the death or incapacity of a member of a Standards Association balloting group by the closing date for the first ballot, that person shall be administratively removed from the Standards Association balloting group. In the event that such documentation is received following the closing date for the first ballot, the Standards Association balloting group member shall be deemed unavailable for balloting purposes and shall not be sent any further balloting material. Comments associated with *Do Not Approve* votes that are received before the Standards Association balloting group member became unavailable will be treated normally; note that confirmation of resolution is not expected. However, no tally shall be recalculated as a result of such a determination of unavailability, including ballots, abstention rate, return, or approval rate.

5.4.4 Mandatory coordination

The Standards Committee shall coordinate with the following entities via circulation of drafts and materials that are developed by the Working Group and incorporated by reference in the draft, if any:

— IEEE Standards editorial staff during Mandatory Editorial Coordination, Standards Association ballot, and RevCom review

— The IEEE-SA Board of Governors when the standard incorporates (either normatively or informatively) Open Source developed by the Standards Committee or Working Group (see 6.5 and subclause 5.6 of the *IEEE Standards Association Standards Board Bylaws*)

— The IEEE Registration Authority Committee (RAC) when the draft includes registration activity (see subclause 5.7 of the *IEEE Standards Association Operations Manual*):

1) The PAR indicates the possible registration of assigned names or assigned numbers to be included in or used by the proposed project.

2) It becomes apparent through development of the draft that:

a) new registration of assigned names or assigned numbers will be included in the draft that will be assigned under a standards developing organization (SDO), or a Working Group or Standards Committee would like to request authority to conduct such assignment;

b) the draft includes reference to, or new specifications for use of, registration activity defined external to the proposed standard.

The RAC, IEEE Standards editorial staff, or RevCom may request RAC review of a draft.

Comments from mandatory coordination entities shall be given appropriate consideration and response by the Standards Committee. At the time of project submittal to the IEEE-SA Standards Board for approval consideration as an IEEE standard, the Standards Committee shall supply the most recent mandatory coordination comments and indicate either acceptance or a request for a waiver (see 4.2.3.2).

5.4.5 Comments received as a result of an IEEE Public Review

Upon the opening of the initial Standards Association ballot, an IEEE Public Review shall start and last for 60 days. Any person may purchase the initial ballot draft for information only, and have the ability to submit public comments on said draft without vote. All public review comments and responses shall be submitted electronically through the IEEE Standards Association public review tools.

All public review comments received during an IEEE Public Review shall be considered by the Standards Committee's comment resolution group and a response shall be provided to the commenter. If the response indicates that a change is to be made to the draft, the commenter is entitled to receive a copy of the revised draft from the Standards Committee upon request.

5.4.6 Comments received from persons who are neither in the Standards Association balloting group nor an IEEE Public Review commenter

Any person may purchase a Standards Association ballot draft for information only. Such persons may submit comments on the draft. Comments received before the close of a ballot shall be considered by the Standards Committee (see 5.4.3.3) and a response shall be provided to the commenter. If the response indicates that a change is to be made to the draft, the commenter is entitled to receive a copy of the revised draft from the Standards Committee upon request.

Comments received after the close of a ballot will be provided to the Standards Committee. The Standards Committee shall acknowledge the receipt of these late comments to the commenter and take such action as the Standards Committee deems appropriate. If the Standards Committee considers the comments and provides a response to the commenter indicating that a change is to be made to the draft, the commenter is entitled to receive a copy of the revised draft from the Standards Committee upon request.

5.5 Submission of proposed standards to the IEEE-SA Standards Board

The Standards Committee shall submit all required documentation, including a complete copy of the last balloted draft, in accordance with the most current version of the IEEE-SA Standards Board Working Guide for Submittal of Proposed Standards, to the RevCom Administrator. This submittal shall be made prior to the submittal deadline specified. For the first three quarterly meetings of the year, the submittal deadline shall be at least 40 days before the

meeting of the IEEE-SA Standards Board. For the last quarterly meeting of the year, the submittal deadline shall be at least 50 days before the meeting of the IEEE-SA Standards Board.

When the proposed standard is considered at a meeting of RevCom, it may be necessary for the Standards Committee to be represented at that meeting, particularly if there were unresolved negative votes during the balloting (see 4.2.3.3 and 5.4.3.2) and/or if RevCom members submit negative comments prior to the RevCom meeting (see 4.2.3.4).

Approved IEEE standards may be submitted for adoption by other organizations (see also 5.6). As part of the adoption process, the adopting organization may receive comments on the technical content of the standard. These comments should be sent to the IEEE Standards Department. The comments will then be referred to the Standards Committee for a response. Responses shall be directed to the commenter, with a copy sent to the IEEE Standards Department. If, in the opinion of the Standards Committee, such comments warrant an amendment or revision to the approved IEEE standard, the Standards Committee shall submit a PAR.

5.6 Adoption

The IEEE is a focal point for various technologies and is willing to share its expertise with standards developers worldwide. One method for doing this is through adoption.

Adoption of IEEE standards by national, regional, and international standards organizations is encouraged. This adoption shall be a formal process that may include a reciprocal agreement between the IEEE and the organization adopting the IEEE standard. The following subclauses discuss the methods for processing adoption requests.

5.6.1 Process for adoption of IEEE Standards

Arrangements for non-IEEE organizations to adopt IEEE standards are established in binding memoranda of understanding. These memoranda of understanding shall be executed by the Managing Director, Standards, and the responsible person in the other organization. IEEE staff shall have responsibility for negotiating the terms and conditions of these agreements. Requests for adoption of IEEE standards shall be forwarded to the Contracts and Licensing Manager, IEEE Standards Department.

Adopting organizations are encouraged to participate in future updates of the originating IEEE standard.

5.6.2 Process for adoption of non-IEEE Standards

5.6.2.1 Standards Committee identification

A Standards Committee as defined by subclause 5.2.2 of the *IEEE-SA Standards Board Bylaws*, shall assume responsibility for coordinating the adoption of a non-IEEE standard by the IEEE. The Standards Committee shall be responsible for the standard upon adoption and until transfer to inactive status in accordance with all IEEE Standards policies and procedures.

5.6.2.2 Project initiation

A Standards Committee shall submit a PAR for the adoption of a non-IEEE standard to the IEEE-SA Standards Board to initiate an adoption. At the same time, the Standards Committee shall contact the Contracts and Licensing Manager, IEEE Standards Department, to initiate copyright negotiations.

5.6.2.3 Draft development

The adoption of a non-IEEE standard shall not include any revisions or changes to the actual document being adopted. However, IEEE exceptions addressing any differences between the IEEE adoption and the non-IEEE

standard may be added to either the front matter of the document or in an annex.

5.6.2.4 Standards Association ballot

The Standards Association ballot shall include a cover letter explaining the reasons for the adoption, the options available to the balloters when casting their votes, and the provisions for consideration of comments by the developer of the non-IEEE standard. The Standards Association ballot shall meet the requirements outlined in 5.4.

Ballot comments and any Standards Committee responses shall be forwarded to the developer of the non-IEEE standard for consideration.

5.7 Trial-Use standards

A Trial-Use standard may be appropriate for the following situations:

a) To bring together concepts for cutting edge technologies that are so new that standardization concepts need to be developed as the technology progresses.

b) To solicit input from a broader community prior to consideration of the development of a full-use standard.

c) As an alternative for a proposed standard that receives a significant number of Do Note Approve votes that cannot be resolved.

Trial-Use standards are effective for not more than three years and cannot be amended; it is allowable to have corrigenda against a Trial-Use standard. Trial-Use standards are prepared through the normal standards process and require a PAR indicating trial-use, Standards Association balloting, ballot resolution, and IEEE-SA Standards Board approval. During the trial-use period, users and those interested in the document may submit comments. The front matter of each approved Trial-Use standard shall contain a published cutoff date for receipt of comments and shall state the expiration date for the Trial-Use document (dates shall be calendar dates, i.e., dd mmm yyyy). The comment cutoff date shall be at least 12 months before the expiration date for the Trial-Use standard. The expiration date for the Trial-Use standard shall be three years from its publication date. Upon expiration, the Trial-Use standard shall be transferred to inactive status (i.e., the document will be labeled *Inactive* and reserved for historical reference.)

The Standards Committee shall consider the comments received. If the document is to be converted to a full-use document, a revision project shall be initiated through the submission of a PAR that indicates full-use status. The normal Standards Association balloting and approval processes applicable to all standards shall be followed. Standards Association balloting for the full-use document shall not be conducted until after the comment cutoff date for the Trial-Use document. Once approved, the full-use standard will follow all of the applicable policies and procedures (e.g., ten-year life; can be amended; can be further revised; etc.).

The Standards Committee may consider converting a full-use project to a Trial-Use project. To make this conversion, a Modified PAR indicating the change to a Trial-Use project shall be submitted to NesCom. If the Standards Association balloting process has begun, the Standards Committee cannot convert the project from full-use to trial-use without terminating the active ballot.

In addition, the Standards Committee may consider converting a Trial-Use project to a full-use project. To make this conversion, a Modified PAR indicating the change to a full-use project shall be submitted to NesCom. If the Standards Association balloting process has begun, the Standards Committee cannot convert the project from trial-use to full-use without terminating the active ballot.

5.8 Appeals

5.8.1 SASB appeals pool

The IEEE-SA Standards Board Chair shall select six to nine members of the IEEE-SA Standards Board to serve as the SASB appeals pool.

Members of the SASB appeals pool shall serve until a new SASB appeals pool is appointed.

5.8.2 SASB Appeal Officers

The SASB Appeal Officers shall be the IEEE-SA Standards Board Chair and the SASB Vice Chair for Appeals.

The Past Chair of the IEEE-SA Standards Board shall serve as the SASB Vice Chair for Appeals. If the SASB Vice Chair for Appeals has a conflict regarding the subject matter of an appeal, the IEEE-SA Standards Board Chair shall appoint another member of the IEEE-SA Standards Board to serve as the SASB Vice Chair for Appeals for that particular appeal.

If the IEEE-SA Standards Board Chair has a conflict regarding the subject matter of an appeal, the SASB Chair shall appoint a non-conflicted member of the SASB to serve as the second SASB Appeal Officer for that particular appeal.

5.8.3 Appeal brief

The appellant shall file a written appeal brief with the Secretary of the IEEE-SA Standards Board (i) within 30 days after the date of notification of action of the IEEE-SA Standards Board; (ii) within 30 days following a final decision from a Standards Committee appeal panel; or (iii) after 30 days and within 60 days of IEEE-SA Standards Board inaction. The appellant shall first have exhausted the appeals procedures of the Standards Committee prior to filing an appeal with the IEEE-SA Standards Board. The appeal brief shall state the nature of the objection(s) including any adverse effects, the clause(s) of the procedures or the standard(s) that are at issue, actions or inaction that are at issue, and the specific remedial action(s) that would satisfy the appellant’s concerns. Previous efforts, including all subordinate appeals, to resolve the objection(s) and the statement of outcome/decision of each, including a sequence of events of these efforts, shall be provided. The appellant shall include documentation supporting all statements in the appeal brief. All issues regarding the subject action or inaction shall be filed together in one appeal brief.

The Secretary shall send the appellant a written acknowledgment of receipt of the appeal brief within five days of such receipt. The SASB Appeal Officers shall review the appeal brief and determine within 20 days of receipt of the appeal brief whether the appeal shall be heard by an IEEE-SA Standards Board Appeal Panel, should be referred to the IEEE-SA BOG, or should be returned to the appellant with instructions. The appeal should be returned to the appellant for a complaint that deals with ethical issues, technical matters, or if the appellant has not exhausted the appeals procedures of a relevant subordinate committee. In these circumstances, the appellant should be instructed to follow the procedures of the IEEE Ethics and Member Conduct Committee or the IEEE-SA Standards Conduct Committee, as appropriate, for filing a formal ethical or conduct complaint; if the complaint concerns a technical matter, to follow the approved procedures for providing technical input including, but not limited to, making a technical comment during the applicable comment submission and/or balloting period; or if the appellant has not exhausted the appeals procedures of a relevant subordinate committee, to file a procedural appeal with such subordinate committee. The SASB Appeal Officers shall review whether the appellant has established a prima facie case, especially in reviewing whether any previous Standards Committee appeal panel decision appealed from was adjudicated in accordance with the relevant P&Ps. If it is determined that a prima facie case has not been established, the Secretary shall notify the appellant in writing that the appeal will be dismissed.

If the SASB Appeal Officers determine that the IEEE-SA BOG should review the appeal, the Secretary of the IEEE-SA Standards Board shall notify the appellant and the appellee (the chair of the committee at issue) of that fact within five days of receipt of the notice from the SASB Appeal Officers that the IEEE-SA BOG will be reviewing the appeal. The appeal shall be referred to the IEEE-SA BOG and adjudicated according to IEEE-SA BOG processes (see subclause 4.4 of the *IEEE Standards Association Operations Manual*). If the IEEE-SA BOG hears an appeal that originated from a referral from the IEEE-SA Standards Board, the results of that appeal shall be reported to the Secretary of the IEEE-SA Standards Board.

If the SASB Appeal Officers determine that an IEEE-SA Standards Board Appeal Panel should hear the appeal, the Secretary shall, within 30 days of receipt of the appeal brief, send the appellee a copy of the appeal brief and acknowledgment, and shall send the appellant and the appellee a written notice of the date, time, and location for an in-person hearing ("hearing notice") with the SASB Appeal Panel (see 5.8.5). The in-person hearing with the SASB Appeal Panel shall be scheduled at the location set for, and during the period of, the first SASB meeting that is at least 60 days after mailing of the hearing notice by the Secretary.

Upon agreement of the appellant, the appellee, and all of the SASB Appeal Panel members, (i) one or more of the participants in an in-person hearing may participate by telephone; or (ii) the hearing may be held solely by telephone at a date/time prior to the scheduled in-person hearing. The Chair of the SASB Appeal Panel will facilitate such agreements.

New evidence meeting the requirements of 5.8.6 shall be provided at least two weeks before the date of the SASB Appeal Panel hearing.

5.8.4 Reply brief

Within 45 days of receipt of the hearing notice, the appellee may send the appellant and Secretary a written reply brief, which specifically and explicitly addresses each allegation of fact in the appeal brief to the extent of the appellee's knowledge. If the appellee furnishes a reply brief, the brief shall include documentation supporting all statements contained in the reply brief.

5.8.5 SASB Appeal Panel

The IEEE-SA Standards Board Chair shall appoint from the SASB appeals pool an SASB Appeal Panel consisting of a chair and two other members who have not been directly involved in the matter in dispute, and who will not be materially or directly affected by any decisions made concerning the dispute ("SASB Appeal Panel"). At least two members shall be acceptable to the appellant and at least two shall be acceptable to the appellee. If the parties to the appeal cannot agree on an SASB Appeal Panel within a reasonable amount of time, the matter shall be referred to the IEEE-SA Standards Board, which shall appoint the members of the SASB Appeal Panel. If an SASB Appeal Panel member resigns or is removed from the SASB Appeal Panel at any time before the appeal hearing, then the IEEE-SA Standards Board Chair shall appoint a replacement from the SASB appeals pool. The replacement shall be subject to the acceptability criteria described above.

To ensure continuity of the appeals process, a specific SASB Appeal Panel will remain impaneled until the publication of the SASB Appeal Panel's final decision(s).

5.8.6 Conduct of the hearing

The number of participating (i.e., speaking) representatives for each of the parties to the appeal is limited to a maximum of three (3). Other individuals may attend the hearing, but will not be permitted to address, or be addressed by, the SASB Appeal Panel or either of the parties to the appeal at any time (including during the question and answer period). No recordings or verbatim transcriptions of the hearing are allowed, except by the IEEE-SA at its sole discretion.

The SASB Appeal Panel may call an Executive Session before, during the course of, or following an appeal hearing

to consider its action on a specific appeal.

No party to an appeal may communicate with any member of the SASB Appeal Panel regarding the appeal while the matter is pending (i.e., from the time of filing of the appeal brief to finalization of the SASB Appeal Panel decision).

The appellant has the burden of demonstrating adverse effects, improper action(s) or inaction, and the efficacy of the requested remedial action. Each party may adduce other pertinent arguments, and members of the SASB Appeal Panel may address questions to individuals. The SASB Appeal Panel shall only consider documentation included in the appeal brief and reply brief, unless

a) Significant new evidence has come to light; and

b) Such evidence reasonably was not available to the appellant or appellee, as appropriate, at the time of filing; and

c) Such evidence was provided by the appellant or appellee, as appropriate, to the other parties as soon as it became available.

Prior to the hearing, the members of the SASB Appeal Panel may convene to review the ground rules before the participants appear.

5.8.7 SASB Appeal Panel decision

The SASB Appeal Panel shall not consider technical appeals or make findings with respect to ethical rules, but shall limit its consideration to procedural matters. The SASB Appeal Panel shall render its decision, based upon majority vote of the SASB Appeal Panel (SASB Appeal Panel members shall vote to find in favor of the appellant or the appellee and shall not abstain), in writing within 30 days of the hearing, stating findings of fact and conclusions, with reasons therefore, based on a preponderance of the evidence. The SASB Appeal Panel shall only address the concerns raised by the appellant and the appellee.

If the appeal has not been previously heard by a Standards Committee appeal panel, the SASB Appeal Panel may give consideration to the following positions, among others, in formulating its decision:

a) Finding for the appellant, with a specific statement of the issues and facts showing that an IEEE policy or procedure was violated. In formulating its conclusions, the SASB Appeal Panel may prescribe the remedy proposed by the appellant or may prescribe an alternative remedy;

b) Finding against the appellant, with a specific statement of the issues and facts showing that appellant failed to meet its burden to demonstrate that an IEEE policy or procedure had been violated; or

c) Finding that new, substantive evidence has been introduced, and remanding the entire action to the appropriate committee for reconsideration.

If the appeal has been previously heard by a Standards Committee appeal panel, the appellant does not have the right to retry appellant’s case before the SASB Appeal Panel. Rather, appellant must show by a preponderance of evidence that the Standards Committee appeal panel made an error by failing to follow its own policies and procedures. The appellant shall be barred from bringing new evidence before the SASB Appeal Panel unless such evidence reasonably was not available to the appellant at the time of the Standards Committee appeal hearing. In such a case, the SASB Appeal Panel will determine whether such new evidence could change the outcome of the proceeding and, if so, shall remand the entire action back to the Standards Committee appeal panel for its reconsideration. Where the appeal was previously heard by a Standards Committee appeal panel, the SASB Appeal Panel may give consideration to the following positions, among others, in formulating its decision:

1) Finding for the appellant with a specific statement of how the Standards Committee appeal panel failed to follow its own policies and procedures and remanding the action to the Standards Committee appeal panel with instructions that the Standards Committee appeal panel issue a ruling on the subject of the appeal correctly following its own policies and procedures;

2) Finding against the appellant, with a specific statement of the facts that demonstrate that appellant failed to meet its burden to demonstrate that the Standards Committee appeal panel did not follow its own policies and procedures; or

3) Finding that new evidence has been introduced which (i) was not reasonably available to the appellant at the time of the Standards Committee appeal hearing; and (ii) could change the outcome of the proceeding, and remanding the entire action to the Standards Committee appeal panel for reconsideration.

The SASB Appeal Panel Chair, through the Secretary, shall notify the appellant, the appellee, and members of the IEEE-SA Standards Board in writing of the decision of the SASB Appeal Panel.

If an SASB Appeal Panel member resigns or is removed after a hearing, then the remaining two members of the SASB Appeal Panel may issue a decision if their decision is unanimous. If it is not unanimous, then the IEEE-SA Standards Board Chair shall appoint a replacement from the SASB appeals pool and a re-hearing shall be conducted during the next IEEE-SA Standards Board meeting series.

5.8.8 Request for re-hearing of the SASB Appeal Panel decision

The decision of the SASB Appeal Panel shall become final 30 days after it is issued, unless one of the parties files a written notice of request for re-hearing prior to that date with the Secretary, based on new evidence, provided such new evidence existed at the time of the hearing, but was not reasonably available to either the appellant or appellee, as appropriate, at the time of the hearing. In such case, the decision of the SASB Appeal Panel shall be stayed pending review by the SASB Appeal Officers within 20 days of receipt of the written request. The review shall decide

a) To adopt the report of the SASB Appeal Panel, and thereby deny the request for re-hearing; or

b) To direct the SASB Appeal Panel to conduct a re-hearing; or

c) At its discretion, to ask the IEEE-SA Standards Board to consider the matter.

Only one re-hearing can be conducted per appeal.

If the appeal was delegated to the IEEE-SA Standards Board by the IEEE-SA BOG, the decision shall also be sent to the Secretary of the IEEE-SA BOG. Appeals from a decision of the SASB Appeal Officers to deny the request for a re-hearing or from the decision of the SASB Appeal Panel after a re-hearing shall be referred to the IEEE-SA BOG.

5.8.9 BOG appeal

The SASB Appeal Panel’s final decision can be appealed to the IEEE-SA BOG in writing to the Secretary of the IEEE-SA BOG within 30 days after the SASB Appeal Panel decision becomes final on the basis of a perceived error in the SASB Appeal Panel process or of a perceived error in the SASB Appeal Panel decision. Such appeal shall proceed in accordance with the *IEEE Standards Association Operations Manual*.

5.8.10 Informal settlement

The IEEE-SA encourages settlement of disputes at any time if the settlement is consistent with the objectives of the IEEE-SA Policies and Procedures. Any settlement (to which the parties agree in writing) that is consistent with

these P & P, or an agreement to withdraw the appeal, will terminate the appeal process.

6. Copyright, commercial terms and conditions, patents, and standard structure

6.1 Copyright

IEEE owns the copyright of draft IEEE standards, approved IEEE standards, draft Industry Connections Work Products, and Work Products released or published by an Industry Connections activity (see 7.2 of the *IEEE-SA Standards Board Bylaws*).

Contributions made by participants in an IEEE-SA standards development or Industry Connections activity meeting, whether the Contributions are Published or not, are subject to the IEEE-SA Copyright Policy set forth in Clause 7 of the *IEEE-SA Standards Board Bylaws*.

The IEEE-SA Copyright slide shall be either presented at the beginning of every IEEE-SA standards development or Industry Connections activity meeting, or distributed prior to the meeting along with the meeting agenda. If the slide is distributed with the meeting agenda, all meeting participants shall be informed at the beginning of the meeting that all material submitted during the meeting is a Contribution and is subject to the IEEE-SA copyright policy. The presentation of the slide or the notice to meeting participants shall be documented in the minutes of the meeting.

6.1.1 Project Authorization Request and Industry Connections Activity Initiation Document

6.1.1.1 Project Authorization Request (PAR)

At the time a PAR is submitted for approval, any known previously Published material and/or Public Domain material intended for inclusion in the proposed IEEE standard shall be identified on the PAR. The Working Group Chair is responsible for obtaining written permission to use all previously Published material prior to the start of the initial ballot or prior to the next recirculation ballot if the excerpted material is to be inserted during comment resolution.

6.1.1.2 Industry Connections Activity Initiation Document (ICAID)

At the time an ICAID is submitted for approval, any known previously Published material and/or Public Domain material intended for inclusion in the proposed Industry Connections Work Product shall be identified on the ICAID. The Chair of an Industry Connections activity is responsible for obtaining written permission to use all previously Published material prior to inclusion of the material in an Industry Connections Work Product.

6.1.2 Contributions from previously Published sources

Participants in an IEEE Standards group or Industry Connections activity who intend to submit Contributions containing excerpted content from previously Published sources shall first notify the Chair of the need for permission, and should assist the Chair in obtaining that permission. The Working Group shall not accept as a Contribution, place on an IEEE server or standards developing group or activity document repository, or include in an IEEE document any material that was previously Published without first obtaining permission for use of the material from the copyright owner or a person with the authority or right to grant copyright permission. Working Group and Industry Connections activity Chairs are responsible for requesting and obtaining permission from external entities and for forwarding the completed response forms to IEEE.

IEEE Permission Form Letters should be used to request and grant such permissions. Permission Form Letters to use material unchanged or modified are available online. Agreements that do not conform to the IEEE Permission Form Letters are possible, but such requests shall be in writing and shall be approved by IEEE-SA staff.

6.1.3 Drafts of proposed IEEE standards

All drafts shall be clearly labeled to reflect their status as unapproved.

6.1.3.1 Draft copyright statements

All drafts shall carry a copyright statement that:

a) The document is an unapproved draft of a proposed IEEE standard

b) The document is subject to change

c) The document shall not be utilized for conformance/compliance purposes.

The *IEEE Standards Style Manual* provides example text to meet the above requirements.

6.1.3.2 Draft distribution to participants

Participants in an active IEEE standards development project are entitled to receive a copy of draft standards produced by that project without charge. The Working Group Chair of the project determines whether an individual (for individual projects) or entity (for entity projects) meets the requirements for participation.

6.1.3.3 Draft distribution for adoption consideration

If a Working Group intends to coordinate drafts of a project for possible adoption of the approved standard by a national, regional, or international standards-developing organization, the Standards Committee and Working Group Chair shall jointly develop a plan with the IEEE Standards Department. IEEE may require an agreement prior to any adoption.

6.1.3.4 Draft distribution for coordination

If a Working Group intends to coordinate drafts of a project with a standards-developing organization or technical organization involved in the technology covered by that project, the Standards Committee and Working Group Chair shall work with the IEEE Standards Department to establish the liaison relationship, subject to the *IEEE-SA Liaison Organization Guidelines for the Provision of Draft IEEE Standards.* Once the relationship has been established, the Working Group Chair may submit drafts to the liaison organization for coordination. Prior to, or simultaneously with, the submission of a draft to the liaison organization, the Working Group Chair shall inform the IEEE Standards Department of the submission and shall also supply the relevant draft. The Working Group Chair shall immediately inform the IEEE Standards Department when the liaison relationship is no longer needed.

All drafts submitted to liaison organizations shall have as its cover page a liaison organization cover letter that outlines the IEEE copyright, permitted uses, distribution mechanisms, and additional recipients of the draft. Template liaison organization cover letters are available from the IEEE Standards Department.

6.1.3.5 Other draft distribution

Requests for drafts other than described in subclauses 6.1.3.2 – 6.1.3.4 shall be directed to the IEEE Standards Department.

6.1.4 Draft Industry Connections Work Products

All draft Industry Connections Work Products shall be clearly labeled to indicate they are drafts.

6.1.4.1 Draft Industry Connections Work Product copyright statements

All draft Industry Connections Work Products shall carry a copyright statement that:

a) The Work Product is a draft

b) The Work Product is subject to change

c) The Work Product shall not be utilized for conformance/compliance purposes.

A draft Industry Connections Work Product may be distributed without charge to the participants for that Industry Connections activity. Other persons seeking permission to reproduce the draft Industry Connections Work Product, in whole or in part, must obtain permission from the IEEE Standards Department.

The IEEE-SA Industry Connections activity document template provides example text to meet the above requirements.

6.2 Commercial terms and conditions

6.2.1 IEEE standards

Provisions involving business relations between buyer and seller such as guarantees, warranties, and other commercial terms and conditions shall not be included in an IEEE standard. The appearance that a standard endorses any particular products, services, or companies shall be avoided. Therefore, it generally is not acceptable to include manufacturer lists, service provider lists, or similar material in the text of an IEEE standard. Where a sole source exists for essential equipment, materials, or services necessary to comply with or to determine compliance with the standard, it is permissible to supply the name and address of the source in a footnote as long as the words “or the equivalent” are added to the reference. In connection with standards that relate to the determination of whether products or services conform to one or more standards, the process or criteria for determining conformity can be standardized as long as the description of the process or criteria (a) is limited to technical or engineering concerns and does not include what would otherwise be a commercial term, and (b) does not provide for testing conformance with any commercial terms.

6.2.2 Industry Connections Work Products

Provisions involving business relations between buyer and seller such as guarantees, warranties, and other commercial terms and conditions shall not be included in an IEEE Industry Connections Work Product, except for provisions approved by the IEEE in connection with the sale or license of the IEEE Industry Connections Work Product by the IEEE or by an agent authorized by the IEEE. While an Industry Connections Work Product may contain references to products, services, or companies, an Industry Connections Work Product shall not endorse or appear to endorse any particular products, services, or companies.

6.3 Patents

The patent policy is set forth in clause 6 of the *IEEE-SA Standards Board Bylaws* and is incorporated herein by reference.

Letters of Assurance are to be e-mailed, faxed, or mailed to the IEEE Standards Association (to the attention of the PatCom Administrator). The PatCom Administrator shall accept each Letter of Assurance that is complete and is received from an individual within the issuing organization whose title suggests authority for intellectual property and legal matters. The PatCom Administrator's duties with regard to Letters of Assurance shall be purely ministerial (i.e., without regard to or exercise of the PatCom Administrator's discretion regarding the content of the Letters of Assurance received). For each Accepted Letter of Assurance, the PatCom Administrator shall record the date on the signed Letter of Assurance and the date upon which the IEEE accepted such. The chair or the chair's delegate of an IEEE standards-developing working group or the chair of a Standards Committee shall request a Letter of Assurance from Affiliates specifically excluded on an Accepted Letter of Assurance.

Upon written request, the IEEE will make available copies of any Accepted Letter of Assurance and its attachments. Letters received after 31 December 2006 shall be posted on the IEEE-SA website.

6.3.1 Public notice

The following notice shall appear in all draft and approved IEEE standards.

> Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken by the IEEE with respect to the existence or validity of any patent rights in connection therewith. If a patent holder or patent applicant has filed a statement of assurance via an Accepted Letter of Assurance, then the statement is listed on the IEEE-SA web site (see http://standards.ieee.org/about/sasb/patcom/patents.html). Letters of Assurance may indicate whether the Submitter is willing or unwilling to grant licenses under patent rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses.
>
> Essential Patent Claims may exist for which a Letter of Assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from the IEEE Standards Association.

6.3.2 Call for patents

The chair or the chair’s delegate of an IEEE standards-developing working group or the chair of a Standards Committee shall be responsible for informing the participants at a meeting that if any individual believes that Patent Claims might be Essential Patent Claims, that fact should be made known to the entire working group and duly recorded in the minutes of the working group meeting. This request shall occur at every standards-developing meeting once the PAR is approved by the IEEE-SA Standards Board.

The chair or the chair's delegate shall ask any patent holder or patent applicant of a Patent Claim that might be or become an Essential Patent Claim to complete and submit a Letter of Assurance in accordance with Clause 6 of the *IEEE-SA Standards Board Bylaws*. Information about the draft standard will be made available upon request.

6.3.3 Inactive standards

All active IEEE standards are subject to periodic revision or inactivation. Standards that have not completed revision within ten years of IEEE-SA Standards Board approval are subject to transfer to inactive status (see clauses 2.2 and 5.3 of the *IEEE-SA Standards Board Bylaws* and 9.2). Thus, any standard that incorporates patented technology may at some point in time be transferred to inactive status. Clause 6 of the *IEEE-SA Standards Board Bylaws* contains policies concerning the period of validity for any Letter of Assurance received from a party regarding an Essential Patent Claim.

6.3.4 Multiple Letters of Assurance and Blanket Letters of Assurance

A Submitter may provide the IEEE with a Blanket Letter of Assurance only when the LOA indicates licensing assurance. A Submitter may submit separate Letters of Assurance providing different licensing positions for different potential Essential Patent Claims.

Over time, a Submitter may also provide multiple assurances for a given Patent Claim by submitting multiple Letters of Assurance for such claim. For Essential Patent Claims, each such Letter of Assurance shall be binding on the Submitter. Each potential licensee may choose to invoke the terms of any applicable Letter of Assurance

accepted by the IEEE, with one exception: If a Submitter has signed and submitted a Letter of Assurance specifically identifying a Patent Claim before or concurrently with signing and submitting a Blanket Letter of Assurance, the Blanket Letter of Assurance cannot be invoked as to the specified Patent Claim. (The Submitter, however, may submit a separate specific Letter of Assurance offering the Blanket Letter of Assurance terms for the specified Patent Claim.) The intention of this paragraph is to permit the Submitter to offer alternative assurances, and to permit the potential licensee to choose from among the alternative assurances offered.

If, after providing a Blanket Letter of Assurance, the Submitter acquires an Essential Patent Claim or a controlling interest in an entity that owns or controls an Essential Patent Claim, the existing Submitter's Blanket Letter of Assurance shall apply to such acquired Essential Patent Claims unless the acquired entity or the prior holder of the acquired Essential Patent Claim has submitted a Letter of Assurance before the acquisition. Any Blanket Letter of Assurance submitted by the acquired entity or the prior holder of the acquired Essential Patent Claim before the acquisition shall continue to apply to acquired Essential Patent Claims covered by such assurance (but not to the acquirer's Essential Patent Claims). Letters of Assurance covering specified Essential Patent Claims shall continue to apply to specified Essential Patent Claims, whether acquired in the acquisition or held by the acquirer before the acquisition, as provided in this Operations Manual. Nothing in this paragraph shall prevent an acquiring party from asking a seller of an acquired Essential Patent Claim or an acquired entity to submit additional Letters of Assurance before closing of the acquisition.

6.3.5 Applicability of Letters of Assurance to Amendments, Corrigenda, Editions, or Revisions

An Accepted Letter of Assurance referencing an existing standard, amendment, corrigendum, edition, or revision will remain in force for the application of the Essential Patent Claim(s) to the technology specified in another amendment, corrigendum, edition, or revision of the same IEEE Standard but only if (a) the application of the technology required by the amendment, corrigendum, edition, or revision of the same IEEE Standard has not changed from its previous usage and (b) the same Essential Patent Claims covered by the prior Accepted Letter of Assurance remain Essential Patent Claims in the same IEEE Standard or revision thereof.

The Working Group Chair shall initiate a request for a new Letter of Assurance from a known Submitter when re-using portions of, or technologies specified in, an existing [Proposed] IEEE Standard, amendment, corrigendum, edition, or revision referenced in an Accepted Letter of Assurance in a different [Proposed] IEEE Standard.

6.4 IEEE standard document structure

6.4.1 Normative and informative

Normative material is information required to implement the standard and is therefore officially part of the standard. Informative material is provided for information only and is therefore not officially part of the standard.

6.4.2 Frontmatter

The frontmatter of an IEEE standard is informative.

6.4.3 Notes and footnotes

Notes and footnotes are informative except as noted in subclauses 6.4.4 and 6.4.5.

The *IEEE Standards Style Manual* provides further information about notes and footnotes.

6.4.4 Notes to tables and footnotes to tables

A note to a table is informative. A footnote to a table is normative.

6.4.5 Notes to figures and footnotes to figures

A note to a figure is informative. A footnote to a figure is normative.

6.4.6 Normative references

Normative references are documents that contain additional material that is necessary to implement the standard. Thus, normative references are indispensable when applying the standard. Each normative reference shall be cited, and the role and relationship of each normative reference shall be explained in the body of the standard.

IEEE and other nationally or internationally recognized standards developing organizations (SDOs) are preferred as the source of normative references. Documents published by other organizations may be cited provided the document is publicly available at a cost that is not unreasonable at the date of publication of the IEEE standard. Documents that are cited as normative references, but that are developed by organizations that are not nationally or internationally recognized SDOs, shall include the edition or date of publication in the citation. References to standards that are not active are permitted, provided such standards are publicly available at the date of publication of the IEEE standard. Draft standards may be used as normative references if they are unambiguously dated, readily available, and retrievable at the date of publication of the IEEE standard. Please consult with an IEEE Standards project editor if such inclusion is necessary.

References to specific clauses or subclauses, tables, and figures of another document shall include the date of said document.

6.4.7 Shall, should, may, and can

The word *shall* indicates mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (*shall* equals *is required to*).

The word *should* indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required (*should* equals *is recommended that*).

The word *may* is used to indicate a course of action permissible within the limits of the standard (*may* equals *is permitted to*).

The word *can* is used for statements of possibility and capability, whether material, physical, or causal (*can* equals *is able to*).

6.4.8 Assigned numbers or names

A draft that defines any of the following items, for which any instance is intended to be allocated independent of approval in an IEEE standard, shall define the rules of such allocation:

— Namespaces

— Listings of products, services, entities, or objects

— Assignment of unique identifiers

— Assignment of unique numbers

In such instances, the draft and the rules for allocation shall be subject to mandatory coordination (see 5.4.4).

6.5 Open Source

Open Source is digital work for which the human-readable source code is available – in the preferred form for making modifications – for use, study, re-use, modification, enhancement, and re-distribution by the users. Open Source applies to software and hardware, which may include computer code, hardware designs, data, documentation, documents, and other digital objects. Other Open Source terms are defined in Clause 2 of the *IEEE-SA Board of Governors Open Source Operations Manual*.

Development of Open Source for incorporation in IEEE standards, as a normative or informative component, shall utilize the IEEE Open Source Platform and tools that are designated by IEEE for IEEE Open Source Projects. The Standards Committee and Working Group shall comply with IEEE Open Source policies and procedures, and policies of the IEEE Open Source Platform. All IEEE Open Source Projects shall be hosted on the IEEE Open Source Platform.

6.5.1 Project authorization

Project authorization for the incorporation of Open Source in an IEEE standard requires both PAR approval by the IEEE-SA Standards Board and approval by the IEEE-SA Board of Governors to host the IEEE Open Source Project on the IEEE Open Source Platform, subject to an approved open source license. Addition of Open Source to a completed standard or an active IEEE standards development project requires approval of a Revision or Modified PAR by the IEEE-SA Standards Board, as applicable.

A PAR Study Group shall not develop Open Source (neither code nor documentation).

The PAR shall indicate whether Open Source may be incorporated (whether normatively or informatively), and the type of open source license under which any Open Source developed in connection with the IEEE Open Source Project shall be distributed.

The Standards Committee and Working Group shall obtain approval from the IEEE-SA Board of Governors for development on the IEEE Open Source Platform of the IEEE Open Source Project under a single IEEE approved open source license.

Changes to the type of open source license are discouraged, and will require a Modified PAR with the request for a change of license noted in Section 8.1 of the PAR. If the license type is changed, then appropriate Contributor License Agreements (CLAs) for the new open source license must be obtained from all previous Contributors prior to publicly indicating a change in the license on the IEEE Open Source Platform. The open source license type identified on the PAR shall not be changed once the Standards Association ballot has begun.

If the PAR for an IEEE standard that incorporates Open Source expires or is withdrawn, the Standards Committee shall either

— Transfer the IEEE Open Source Project to another active standards development project (which may require a New or Modified PAR);

— Transition the IEEE Open Source Project to another project category on the IEEE Open Source Platform; or

— Transition the IEEE Open Source Project to inactive status.

6.5.2 Governance of IEEE Open Source Projects incorporated in IEEE standards

Development and maintenance of the technical content (code and documentation) of IEEE Open Source Projects incorporated in an IEEE standard are the responsibility of the Standards Committee and its Working Groups. This responsibility continues as long as the standard is active. A Standards Committee may form an Open Source subgroup

that coordinates Open Source development for multiple Working Groups under that Standards Committee. A Standards Committee may establish one or more Open Source subgroups to manage several IEEE Open Source Projects, or delegate responsibility to the applicable Working Group to establish its own Open Source subgroup. The Open Source subgroup shall comply with all IEEE Open Source policies and procedures, and all policies of the IEEE Open Source Platform.

An Open Source subgroup (of the Standards Committee or Working Group) shall be led by an IEEE Open Source Project Lead who shall be designated as an officer of the responsible Standards Committee or Working Group. The IEEE Open Source Project Lead is responsible for the vitality, organization, development, evaluation, operation, security, and maintenance of an IEEE Open Source Project. The IEEE Open Source Project Lead may communicate directly with the IEEE Open Source Platform team regarding technical matters.

Each IEEE Open Source Project incorporated in an IEEE standard shall have at least one Maintainer, who may be the IEEE Open Source Project Lead. Maintainers have the authority to commit (save changes) to the IEEE code and document repository associated with an IEEE Open Source Project, and to assign Committers. Maintainers shall be a member of the Standards Committee or Working Group responsible for the project and shall be an IEEE member of any grade and a member of IEEE-SA. Committers shall be members of the Standards Committee or Working Group responsible for the project and shall be responsible for committing code to the IEEE code and document repository associated with an IEEE Open Source Project.

The IEEE Open Source Project Lead and Maintainer(s) shall be responsible for coordinating the development of Open Source with the Working Group and comment resolution group, and obtaining applicable CLAs for all Contributions to the IEEE Open Source Project.

6.5.2.1 Contributions to Open Source

An IEEE Open Source Contributor is any person who submits any material to an IEEE Open Source Project, whether as an individual or on behalf of an organization. Material may include, but is not limited to, Open Source works, comments, and marketing materials. IEEE membership is not required to be a Contributor. Every Contributor is required to obtain an IEEE account that requires agreeing to the IEEE Code of Conduct. Every submission by an IEEE Open Source Contributor shall be associated with the IEEE account of the Contributor. All Contributors to IEEE Open Source Projects incorporated in an IEEE standard shall declare their affiliation(s) (see 5.1.2.3).

All members of the Open Source subgroup shall submit CLAs applicable for the entire IEEE Open Source Project(s) for which they are responsible, or for all IEEE Open Source Projects under the applicable open source license(s). The Working Group Chair is responsible for confirming that appropriate CLAs are submitted for all Contributions to any Open Source developed by the Working Group.

Every Contribution to an IEEE Open Source Project shall have an appropriate CLA for the Contribution and be under the same open source license as indicated on the repository. If the type of open source license is changed on the PAR, updated CLAs shall be obtained from all Contributors to the IEEE Open Source Project prior to indicating a change in the license on the IEEE Open Source Platform.

6.5.2.2 Application of patent policy

The IEEE-SA patent policy applies to Open Source that is incorporated in a standard, even if a CLA has been submitted. IEEE does not determine whether there is consistency between Letters of Assurance and CLAs. A call for patents notice shall be posted on the IEEE Open Source Platform in the area where CLAs are submitted for all Open Source developed by the Working Group that is incorporated normatively or informatively in a draft or approved standard.

The IEEE Open Source Platform, in the area where CLAs are submitted, shall have a pointer to Accepted Letters of Assurance, as well as the appropriate sections of the *IEEE-SA Standards Board Bylaws* and *IEEE-SA Standards Board Operations Manual* relating to intellectual property.

The IEEE Standards website shall make available information about all Accepted CLAs for IEEE Open Source Projects incorporated in an IEEE standard, and information about Accepted CLAs shall also be available where Accepted Letters of Assurance are posted on the website.

6.5.2.3 Incorporation of Open Source in standards

IEEE standards may incorporate the use of Open Source in two ways:

— Normatively, where use of the Open Source is required when implementing the standard

— Informatively, where the Open Source is provided for information only, and not required for implementation

All IEEE standards that incorporate Open Source shall identify the appropriate use (normative or informative) of the Open Source for compliance with the standard, and the location of the software code and documentation in the IEEE Open Source repository.

Open Source that is incorporated normatively without a specific version shall not be included in the text of the draft standard unless it is marked as an Example.

Informative documentation shall be included in the published standard (e.g., as an Annex) explaining how to access and run the Open Source. The form of this documentation shall comply with the *IEEE Standards Style Manual*, and files provided to IEEE Standards editorial staff shall be compliant with requirements for standards publication.

IEEE Open Source incorporated in a draft IEEE standard that is published prior to approval of the standard by the IEEE-SA Standards Board shall include IEEE-SA disclaimer text (see the *IEEE Standards Style Manual*) on the IEEE Open Source Platform and in all IEEE Open Source in the IEEE Open Source repository for the IEEE Open Source Project.

The guidance on references listed in the *IEEE Standards Style Manual* applies to normative and informative references to Open Source. A reference shall specify one or more source code libraries within a specified project in a specified code repository. A reference may specify one or more specific versions, including “the most current version,” of each library.

Normative use of Open Source is discouraged, unless required for accuracy, functionality, safety, security, or compatibility. Open Source that is incorporated normatively without referencing specific version(s) (i.e., it is undated) shall be made available and maintained on the IEEE Open Source Platform. This restriction does not apply to informative references.

If an IEEE standard normatively references a specific version of the Open Source (i.e., it is a dated reference), the version can be changed only through a revision of the standard, or an amendment or corrigendum to the standard. The restriction on published amendments (see 8.1.2) does not apply for amendments that are intended only to update Open Source or references to Open Source.

For normatively referenced Open Source that does not have a specific version, the Standards Committee or Working Group shall review updates to the Open Source during the standards development process and should review updates to the Open Source after IEEE-SA Standards Board approval to determine if the software continues to align with the standard, and if not, to take appropriate action (e.g., determine whether a dated reference should be noted in the standard instead).

6.5.3 Mandatory coordination

During mandatory coordination, the Standards Committee shall include all Open Source developed by the Working Group and incorporated in the draft. All applicable CLA identifiers shall be submitted during Mandatory Editorial Coordination. The IEEE Open Source Community Manager and IEEE-SA IPR Staff shall review the Open Source, CLAs, and associated documentation prior to initial ballot. Mandatory coordination comments by the IEEE Open Source Community Manager and IEEE-SA IPR Staff shall be addressed prior to initial ballot.

6.5.4 Standards Association ballot and public review

All IEEE draft standards that incorporate Open Source developed by an IEEE Working Group shall provide notification during the invitation to ballot and on the public review site that (a) the IEEE draft standard incorporates Open Source, (b) applicable CLA(s) are required for any Contributions to IEEE Open Source incorporated in an IEEE standard, and (c) template CLAs are available, with links to the applicable CLA templates.

During the Standards Association ballot, balloters shall be granted access to view any referenced Open Source. After the initiation of the Standards Association ballot process, the IEEE Open Source incorporated in an IEEE standard shall only be updated to reflect changes approved by the ballot group or required by IEEE for the secure and productive operation of the IEEE Open Source Platform.

The IEEE Open Source Project Lead and at least one Maintainer shall be members of the comment resolution group.

Any comments that provide modifications to IEEE Open Source may not be implemented in the IEEE Open Source or the draft standard and may not be considered unless an applicable CLA was previously submitted to IEEE. The IEEE Open Source Project Lead and Maintainer are responsible for obtaining all CLAs prior to the start of initial ballot, and prior to the next recirculation ballot if the Open Source Contribution is inserted during comment resolution.

Once the Standards Association ballot is completed for a draft standard, any IEEE Open Source developed by the Working Group that is incorporated shall not be updated until after IEEE-SA Standards Board approval, and then only if the Open Source is undated.

Public review commenters shall be granted access to view the IEEE Open Source developed by the Working Group. Any public review comments that provide modifications to the IEEE Open Source may not be implemented in the IEEE Open Source or in the draft standard and may not be considered unless an applicable CLA was previously submitted to IEEE.

6.5.5 Release and maintenance of Open Source

Release of Open Source incorporated into an IEEE standard shall occur only after approval of the standard by the IEEE-SA Standards Board, and the IEEE Open Source Project shall be included in the official IEEE listing. After the standard is approved, only Open Source that does not have a specific version (undated) may be updated without requiring a revision of the standard, or an amendment or corrigendum (see 8.1.2). Normatively referenced Open Source that is undated may be updated only with approval from the Standards Committee, Working Group, or a subgroup delegated with that responsibility, unless the changes are required by IEEE for the secure and productive operation of the IEEE Open Source Platform.

7. Liaisons with organizations external to IEEE

7.1 Liaisons from Standards Committees to organizations external to IEEE

7.1.1 Definition of a Standards Committee External Liaison

A Standards Committee External Liaison is an information conduit that enables sharing of information from a Standards Committee/Subgroup to an organization external to IEEE.

7.1.2 Definition of a Standards Committee External Liaison coordinator

A Standards Committee External Liaison coordinator is appointed by the Standards Committee/Subgroup and facilitates the sharing of information from a Standards Committee/Subgroup to an organization external to IEEE (see subclauses 7.1.6 and 7.1.7).

A Standards Committee External Liaison coordinator is not an External Representative as defined in the *IEEE Standards Association Operations Manual*, subclause 7.1.1.

7.1.3 General guidelines for the establishment of a Standards Committee External Liaison

The Standards Committee/Subgroup should have activity in the relevant technical field of the organization external to IEEE with which the liaison is being established.

7.1.4 Establishing a Standards Committee External Liaison

A Standards Committee/Subgroup may establish a liaison with an organization external to IEEE.

Establishment of a Standards Committee External Liaison shall be communicated to the appropriate IEEE-SA Program Manager.

7.1.5 Appointment of a Standards Committee External Liaison Coordinator

Once a Standards Committee/Subgroup has established a Standards Committee External Liaison, the Standards Committee/Subgroup shall appoint a coordinator and notify the IEEE-SA Program Manager with the name and contact information of the coordinator.

7.1.6 Responsibilities of a Standards Committee External Liaison coordinator

The Standards Committee External Liaison coordinator:

a) Shall indicate their Standards Committee/Subgroup Liaison coordinator role when attending meetings of the organization external to IEEE.

b) May share IEEE information with the organization external to IEEE as authorized by the Standards Committee/Subgroup (a template for sharing written information may be used and can be obtained from the IEEE-SA Program Manager) (see subclause 7.1.7 regarding the sharing of IEEE documents). Any other information shared shall be identified as the views of the individual and not that of the Standards Committee/Subgroup

   Recognizing that a Standards Committee External Liaison coordinator might need to represent another group (such as his/her employer or other affiliation), the Standards Committee External Liaison

coordinator is permitted to represent that group as well as serve as the Standards Committee/Subgroup Liaison coordinator in the same organization external to IEEE.

c) May share materials from the organization external to IEEE with the Standards Committee/Subgroup subject to the other organization's policies and procedures (including copyright policy).

d) Is responsible for adhering to the Standards Committee/Subgroup's policies and procedures. All information shared by the Standards Committee External Liaison coordinator shall comply with the IEEE-SA Copyright Policy, outlined in Clause 7 of the *IEEE-SA Standards Board Bylaws* and subclause 6.1 of the *IEEE-SA Standards Board Operations Manual.*

e) If the Standards Committee External Liaison coordinator becomes aware of IEEE copyrighted material being used in another organization's document, the Standards Committee External Liaison coordinator shall notify the IEEE-SA Program Manager.

7.1.7 Submission of IEEE documents to an organization external to IEEE

If a Standards Committee/Subgroup would like to share a draft IEEE standard with an organization external to IEEE, the procedures in subclause 6.1.3.4 of the *IEEE-SA Standards Board Operations Manual* apply.

If a Standards Committee/Subgroup would like to share a published standard with an organization external to IEEE, please contact IEEE-SA and notify the IEEE-SA Program Manager.

Any requests not addressed above shall be sent to stds-ipr@ieee.org.

7.1.8 Submittal of comments to an organization external to IEEE

Comments submitted to an organization external to IEEE are subject to that organization's intellectual property rights policies.

7.2 Liaisons from organizations external to IEEE to Standards Committees/Subgroups

An organization external to IEEE may request to establish a liaison relationship from the organization external to IEEE to a Standards Committee/Subgroup as an information conduit and may provide information as part of the consensus building process.

7.2.1 Criteria for the establishment of a liaison

In order to establish a liaison relationship with a Standards Committee/Subgroup, the organization external to IEEE shall meet the following criteria:

a) Have technical competence or expertise in the field of technology represented by the Standards Committee/Subgroup with which the liaison relationship is established

b) Have a process for developing consensus on any input provided to the Standards Committee/Subgroup

7.2.2 Establishing a liaison with a Standards Committee

An organization external to IEEE may request to establish a liaison with a Standards Committee/Subgroup. The Standards Committee/Subgroup that receives the request shall determine whether to accept it and shall reply to the requesting organization.

Establishment of a liaison shall be communicated by the Standards Committee/Subgroup to the IEEE-SA Program Manager.

7.2.3 Roles and responsibilities of a liaison coordinator

Liaison coordinators may attend and participate in Standards Committee/Subgroup meetings. If a meeting fee is being charged, the liaison coordinator is responsible for paying the fee.

While participating in IEEE standards development activities, all participants shall act in accordance with all applicable laws (nation-based and international), the IEEE Code of Conduct, the IEEE Code of Ethics, the *IEEE-SA Standards Board Bylaws* (see *IEEE-SA Standards Board Bylaws* subclause 5.2.1 on "Participation in IEEE standards development"), and the *IEEE-SA Standards Board Operations Manual.*

Liaison coordinators cannot attain voting rights in the name of the organization external to IEEE.

7.2.4 Technical contributions

If a liaison organization external to IEEE makes a technical Contribution to an IEEE draft standard, the liaison organization thereby agrees to comply with IEEE-SA's policies and procedures related to Contributions (e.g., the IEEE-SA Copyright Policy, outlined in Clause 7 of the *IEEE-SA Standards Board Bylaws* and subclause 6.1 of the *IEEE-SA Standards Board Operations Manual*; the IEEE-SA Patent Policy in regards to disclosure of potential essential patent holders, outlined in Clause 6 of the *IEEE-SA Standards Board Bylaws* and subclause 6.3 of the *IEEE-SA Standards Board Operations Manual*).

If a liaison organization submits one of its copyrighted documents to a Standards Committee/Subgroup for coordination, the document shall not be considered to be a Contribution and shall not be used in any IEEE document without prior permission from the organization external to IEEE. Prior to distributing the organization's document, the Standards Committee/Subgroup shall reference the Working Group Draft Sharing List to determine if guidance is required from the IEEE-SA Program Manager.

7.2.5 Termination of liaisons

Liaisons may be terminated by the Standards Committee/Subgroup at their discretion for reasons including, but not limited to, the following:

a) All work is deemed to have been completed

b) The organization external to IEEE has not been compliant with the permission terms associated with an IEEE Standards draft provided to them

c) The relationship is determined to not be in the best interest of the Standards Committee/Subgroup, IEEE-SA, or IEEE

8. Publication

8.1 Standards

Upon approval by the IEEE-SA Standards Board, the standard shall be published as an IEEE standard. The Standards Committee shall be notified of the approval in writing. Balloters with unresolved negative ballot comments shall be informed in writing of the approval and of their right to appeal.

Working group members and Standards Association ballot group members are listed in the front matter of the published IEEE standard. For entity-based standards, entities are listed and may be accompanied by the individual representing the entity.

8.1.1 Errata

An erratum shall be prepared when an editorial error is found in an approved IEEE standard that represents a deviation from the standard as approved by the IEEE-SA Standards Board and that could result in misinterpretation of the standard. The date of the erratum and a statement that the erratum represents an editorial correction only shall appear.

8.1.2 Amendments and corrigenda

Amendments and corrigenda are processed with separate PARs and balloted independently in accordance with the requirements of these procedures, including submission to the IEEE-SA Standards Board. A corrigendum may not extend the scope of the existing standard. An amendment may extend the scope of the existing standard, but if the proposed scope of the amendment PAR or the changes made in the draft amendment are found to be excessive by the IEEE-SA Standards Board, the Standards Committee shall initiate a revision PAR to replace the amendment PAR.

All PARs for amendments and corrigenda shall include a project scope.

All amendments and corrigenda shall follow the style conventions for indicating changes defined in the *IEEE Standards Style Manual*.

Standards Association ballots of amendments and corrigenda shall also include access to the approved base standard and any approved amendments and corrigenda in order to provide sufficient information to the Standards Association balloting group.

Up to three amendments can be approved before the standard shall be revised, unless the base standard has been approved within the past three years. In such a case, multiple amendments may be added until the base standard is three years old. After the three-year period, RevCom shall defer consideration of additional amendments or corrigenda until a revision or a two-year extension request is approved by the IEEE-SA Standards Board.

If, for any extenuating circumstances, an exception to these rules is required, the Standards Committee shall take its request for a two-year extension to RevCom. A project plan outlining the rationale for the request, as well as a schedule for the revision, also shall be submitted. RevCom will review the request and make a recommendation to the IEEE-SA Standards Board.

During the two-year extension period, the Standards Committee can submit additional amendments and corrigenda for approval consideration. However, after this period, RevCom shall defer consideration of additional amendments or corrigenda until a revision is approved by the IEEE-SA Standards Board.

8.1.3 Normative annexes

Normative annexes are official parts of the standard that are placed after the body of the standard for reasons of convenience or to create a hierarchical distinction. They are official (substantive) parts of the standard. A normative annex shall be referred to as such (Annex A, Annex B, etc.) in its title, the table of contents, and the text.

8.1.4 Informative annexes

Informative annex texts shall be submitted with the proposed standard.

Informative annexes are included in a standard for information only and are not normative (substantive) parts of the standard. Standards writers should carefully consider the nature of material placed in informative annexes. The working group should also understand that informative annex material *is* considered part of the balloted document and, as such, shall be submitted to the IEEE-SA Standards Board for approval.

8.2 Publication of drafts

Drafts of standards under development are normally distributed to members of the group involved in their generation (working group, subcommittee, etc.) for comment and letter ballot. The normal method for generating valid comments is to conduct a letter ballot of the working group or subcommittee.

All drafts, no matter how broad their circulation, shall be marked on the cover and elsewhere with the appropriate copyright and legal statements as defined in Clause 6.

When using the approved IEEE standards designation on a draft standard, the designation shall be structured, at a minimum, as “IEEE Pxxx/DXX,” where “xxx” represents the specific designation and “XX” represents the specific draft version of that document. The date of the draft shall also be included. Any additional information (such as the draft chapters) may be included at the discretion of the working group. The draft designation shall appear on each page of the draft in the same location for the sake of continuity (for example, the upper right corner, the bottom right corner, etc.).

9. Review of IEEE standards

9.1 Revision

The Standards Committee should initiate revision of a standard whenever any of the material in the standard (including all amendments, corrigenda, etc.) becomes obsolete or incorrect, or if three or more amendments to a base standard exist three years after its approval. The Standards Committee may initiate revision of a standard when new material becomes available and normal evaluation of need and feasibility indicates revision is warranted. The procedure for revising a standard is the same as for developing a new standard. A revision shall encompass the cumulative scope of the project (including all approved amendments and corrigenda).

In a revision, balloters may register objections to any part of the standard, as the revision process opens the entire document to comment. (The amendment process shall be used when new material and possibly corrections of a limited scope are proposed.)

The draft revision document submitted to the IEEE-SA Standards Board shall be a complete version of the revised document. A complete document shall include both the changed and the unchanged text, with balloted changes incorporated into the document.

When a standard is revised, its approved amendments and corrigenda shall be removed from active status as separate documents. Existing amendments and corrigenda shall either be integrated into the base document or eliminated as indicated in the PAR or determined by the Standards Association balloting process.

9.1.1 American National Standards

For those IEEE Standards that are also American National Standards, the Standards Committee should initiate a revision prior to the standard's fifth anniversary of approval as an American National Standard (ANS) in order to keep the standard from being withdrawn by ANSI. If this does not occur, the Standards Committee can provide a rationale for extension to the RevCom Administrator, who will communicate the request to ANSI. The request for an extension of time shall be submitted to ANSI prior to the thirtieth day following the fifth anniversary of approval as an ANS. A request for extension shall provide the schedule of work that will lead to revision.

9.2 Removal from active status

Standards that are no longer useful or contain significant obsolete or erroneous information should be recommended for withdrawal from active status by the Standards Committee. A recommendation for withdrawal from active status shall be supported by a Standards Association ballot (see 5.4) with a 50% return and at least a 75% approval.

Every IEEE Standard shall be considered for transfer to inactive status by the IEEE-SA Standards Board at the beginning of the next calendar year after it is ten years past its approval date (i.e., the standard will be labeled *Inactive* and reserved for historical reference).

A standard remains active until it is officially transferred to inactive status by the IEEE-SA Standards Board. When a standard is transferred to inactive status, its amendments and corrigenda are also transferred to inactive status.

10. Maintenance and modification of the *IEEE-SA Standards Board Operations Manual*

Proposed modifications to this manual may be submitted to the Secretary of the IEEE-SA Standards Board by members of the IEEE-SA Standards Board and any of its committees. This manual will be maintained by the IEEE Standards Department Staff, reviewed by ProCom, and approved by the IEEE-SA Standards Board.

This document shall be reviewed by legal counsel.

10.1 Interpretations of the *IEEE-SA Standards Board Operations Manual*

Requests for interpretations of this document shall be directed to the IEEE-SA Standards Board. The Secretary of the IEEE-SA Standards Board shall respond to the request within 30 days of receipt. Such response shall indicate either an interpretation or a specified time limit when such an interpretation will be forthcoming. The time limit shall be no longer than is reasonable to allow consideration of and recommendations on the issue by, for example, the Procedures Committee of the IEEE-SA Standards Board.