



Engineering Manual

- ◆ Description of the organization of the Standards and Technology Department of the Telecommunications Industry Association and its Engineering Committees
- ◆ Rules for operation of the Engineering Committees
- ◆ Intellectual Property Rights Policy
- ◆ Rules for operation of the Technical Standards Subcommittee
- ◆ Legal Guidelines

October 2009

5th Edition

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Revision History

TIA's first-ever Engineering Manual was issued December 6, 1991 and supplemented with various Advisory Notes until May 31, 2001.

The second edition of TIA's Engineering Manual was approved and released on June 1, 2001.

The third edition of the TIA Engineering Manual incorporated required changes per the American National Standards Institute Subcommittee on Accreditation. Specifically, changes were made to the following sections:

Section 6.10, Comment Resolution

Section 11.1, Standards Secretariat Record Retention

Section 13.2, Formal Appeals

The 4th Edition responded to changes required as a result of recommendations following TIA's 2003 ANSI audit and direction from the ANSI Executive Standards Committee (ExSC). In addition, the TIA Technical Committee approved changes to the Intellectual Property Rights policy in 2004. Lastly, some portions were updated to reflect current TIA practice.

The changed text is shown in revision control throughout the 4th Edition Manual

Major changes were made in the following areas:

Inclusion of IMPORTANT NOTICE OF PARTICIPATION

Statements of Policy, Intellectual Property Rights Policy

Definitions

Section 3.2.1, Eligibility for Participation in Formulating Groups

Section 3.2.2, Formulating Group Balance

Section 5.3.3.1, Voting in Formulating Group Meetings

Section 6.4, Copyright and Submissions

Section 6.5, Disclosure of Essential Patents

Section 6.7.1, TIA Standards

Section 6.7.2, ANS Standards

Section 6.11.6, Negative Ballots and Negative Comments, Right to Appeal Notification

Section 14, Changes to TIA Engineering Manual

ANNEX A, Section A5.4 Hearing

ANNEX B, Section B. Procedures for Conducting Activities

ANNEX D, Sample Meeting Notice & Agenda

ANNEX G, TIA Submission Cover Sheet Template

ANNEX G.1, TIA Submission Cover Sheet Template with Optional Disclosure Clauses

ANNEX H, Patent Holder Statement-Specific

ANNEX H.1, Patent Holder Statement-General

ANNEX I, Software Copyright Holder Statement

ANNEX J, Software Evaluation License

ANNEX K, Numbering of Documents

This 5th Edition responds to changes required as a result of recommendations following TIA's 2008 ANSI audit. In addition, some portions were updated to reflect current TIA practice.

Major changes were made in the follow areas:

Definitions

Section 2.4.3, TIA Intellectual Property Rights Standing Committee

Section 3.1.3, Establishment and Dissolution of Subcommittees, Working Groups, or Task Groups

Section 3.2.2, Formulating Group Balance

Section 4.1, Eligibility for Formulating Group Chair and Vice Chair

Section 5.3.3.2, Letter Ballots

Section 6.3.2, New American National Standards

Section 6.3.3, Existing Projects

Section 6.6.2, Balloting of Standards Proposals

Section 6.7.1, TIA Standards

Section 6.7.2, American National Standards

Section 6.8.3, Non-Technical or Non-Germane Comments

Section 6.9.1, TIA Standards

Section 6.9.2, American National Standards

Section 6.10, Comment Resolution

Section 6.11.1, Complete Re-ballot of TIA Standard

Section 6.11.3, Complete Re-ballot on an American National Standard

Section 6.11.4, Default Ballot on an American National Standard

Section 6.11.5, Necessary Documentation for Default Ballots

Section 6.12, Standards Approval

Section 8.2, Bulletins

Section 12.2.1, Referencing Draft Documents

Annex A A2, Responsibilities

Annex A A4, Operation of the Technical Standards Subcommittee (TSSC)

Annex A A5.5, Appeals Panel

Annex B Section F, Special Rules for Conducting Standardization Programs

Annex F Committee Correspondence, removed

Introduction

A major function of the Telecommunications Industry Association (TIA) is the writing and maintenance of voluntary industry Standards and Specifications, the formulation of positions for presentation on behalf of the United States in international standards fora, and the preparation of technical information and reports for use by industry and government. These activities are carried out by the volunteer Members of TIA Engineering Committees, operating under the authority of the TIA Technical Committee, a Special Committee created by the TIA Board of Directors. The TIA Standards and Technology Department administers and supports the activities of the Engineering Committees.

This Manual describes the manner in which the Standards activities of the Telecommunications Industry Association are organized and the manner in which its activities are conducted.

Specific responsibility for overseeing the Standards and Technology Department and the Engineering Committees has been assigned by the TIA Board of Directors to the TIA Technical Committee, one of the standing committees established by the Board under the provisions of the bylaws of the Association. The product Divisions of the Association sponsor the Engineering Committees working in their product areas by providing guidance, direction, and administrative funding.

Special legal requirements apply to Standards writing. Because of this, Standards and Specification writing are administered and supported by the Standards and Technology Department, which also coordinates the technical program and provides a unified interface with the American National Standards Institute (ANSI) and other Standards Development Organizations (SDOs).

A further purpose of this Manual is to provide legal and policy guidelines for the formulation and conduct of Engineering Committees, Subcommittees, and Working Groups. It specifies how such groups are formed or disbanded, how leadership is chosen and maintained, membership requirements; the development and implementation of a program of work; the conduct of meetings; administrative processing of contributions, drafts, and correspondence; relations with other SDOs; and the responsibilities of the Chairs.

Statements of Policy of the Standards and Technology Department

Relationship with Other Elements of the TIA

The TIA Engineering Committees shall confine their activities to the preparation of Standards and Specifications, and to other documents and technical matters, as further defined in this Manual. The Engineering Committees shall conduct their activities in strict compliance with the policies, rules and procedures set forth in this Manual, and with the Legal Guides in ANNEX B to this Manual.

It is intended that the other standing and special committees, and the TIA Product Divisions shall confine their activities to other than Standards, Specifications, and technical matters, and shall refer such technical matters to the Standards and Technology Department and appropriate Engineering Committees.

The Product Divisions may recommend work programs and guide the efforts of the Engineering Committees that they sponsor within the Standards and Technology Department, but shall not themselves engage in the preparation of Standards or Specifications.

Relationship with ANSI

The TIA is a member of the American National Standards Institute which recognizes TIA as a National Standards Body for the United States.

As a matter of policy, it is expected that most new TIA Standards and Specifications are intended for submission to ANSI as candidates for recognition as American National Standards.

International Cooperation and Harmonization

The TIA's trade policy goals include removal of barriers to market access, full participation of U.S. government and industry in the Standards-setting process worldwide, and achievement of a minimum level of Standards required to ensure interoperability and proper function of the international network. In the spirit of these goals, the TIA encourages its Committees and Staff to work cooperatively with other Members of the ANSI confederation, international standards bodies and counterpart national and regional Standards bodies outside the United States to harmonize telecommunications equipment Standards and to avoid unnecessary duplication of effort. To this end, the TIA will share its Standards and Specifications, whether work in progress or completed works, with counterpart Standards organizations in other countries, subject to the intellectual property rights, other property and contractual rights of third parties and any applicable laws and government regulations. The TIA will also allow non-voting international observers representing international, regional and national SDOs to participate in TIA Formulating Group meetings and activities unless contrary to U.S. law or regulation.

In recognition of the common telecommunications network shared by the United States and Canada, and of the North American Free Trade Agreement (NAFTA), TIA Engineering Committees are encouraged to work with their Canadian and Mexican counterpart groups to produce common harmonized Standards as well as encouraging Canadian and Mexican organizations to directly participate in TIA Formulating Group activities, subject to any applicable laws and government regulations.

Important Notice for Participation

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of the TIA Engineering Manual and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of TIA's Standards Program on a case-by-case basis.

Intellectual Property Rights Policy

TIA has an Intellectual Property Rights (IPR) Policy, the full text of which can be found in the TIA Engineering Manual (www.tiaonline.org/standards/procedures/manuals/engineering.cfm). We call to the attention of participants and attendees that TIA's Policy is to encourage, but not require, the voluntary disclosure (preferably early) of Essential Patent(s) and published pending patent application(s) that may be essential to the practice of a TIA Publication. If any such disclosures are made, the procedures to be followed are contained in Sections (1) through (5) in the Introduction of this Manual.

To further assist in the understanding of this Policy, refer to "Guidelines to the Intellectual Property Rights Policy of the Telecommunications Industry Association" posted on the TIA website at www.tiaonline.org/standards/procedures/ipr/index.cfm

When an Essential Patent(s) has been identified in any proposed Standard, TIA will follow a policy based upon that of the American National Standards Institute (ANSI) (www.ansi.org).

1. Inclusion of Patents in Standards

There is no objection in principle to drafting a Standard in terms that include the use of a patented invention, if it is considered that technical reasons justify this approach. If TIA receives notice that a proposed Standard may require the use of a patent or a published pending patent application, then the procedures stated below in Sections (2) through (5) shall be followed.

Any discussion regarding terms and/or conditions of a license are not permitted in any TIA activity.

1.1 Responsibility as Respects Identifying Patents and Licensing Terms

TIA staff is directed to include the following statement in every TIA Publication, which statement is hereby incorporated by reference in every such TIA Publication.

TIA shall not be responsible for identifying patents for which licenses may be required in connection with any TIA Publication or for conducting inquiries into the legal validity or scope of those patents that are brought to its attention. TIA will neither be a party to discussions of any licensing terms or conditions, which are left to the parties involved, nor will TIA opine or judge whether proposed licensing terms or conditions are reasonable or non-discriminatory.

1.2 Patent Holder Statement

Prior to approval of each such proposed Standard, TIA shall receive an effective Patent Holder Statement in the form of ANNEX H from any party identified in any manner as a Patent Holder. The statement must be in the words of the TIA-approved form entitled "Patent Holder Statement-Specific", attached hereto as ANNEX H with one of the paragraphs 1, 2a, or 2b checked. Where a party identified as a Patent Holder refuses to furnish a statement in the form of ANNEX H with one of the paragraphs 1, 2a, or 2b checked, the standard should be referred back to the Formulating Group for further consideration.

In addition, "Patent Holder Statement-General", attached hereto as ANNEX H.1 can be used for multipart Standards or other specific groupings of Reference Documents. All forms of ANNEX H are also located at <http://www.tiaonline.org/standards/procedures/ipr> and such form shall be used to submit Patent Holder Statements whether electronic or written. If a Patent Holder Statement is received by TIA that is deemed not to be in accordance with this Intellectual Property Rights Policy by the Standards and Technology Department, TIA will return the Statement to the submitter with an explanation of reasons for rejection and deem the Statement ineffectual. TIA will also advise the Chair of the Formulating Group of any patent(s) or published pending patent application(s) identified therein, and that the Statement was deemed ineffectual. Whenever a proposed Standard undergoes a revision necessitating a new ballot, new Patent Holder Statements will be requested from each identified party or Patent Holder unless the revision is encompassed in a previously submitted ANNEX H.1 Statement.

1.3 Record of Statement

Prior to approval of a proposed Standard, a record of the Patent Holder's Statement shall be placed and retained in the files of TIA. TIA will forward a copy of the statement to ANSI when the document in process is related to the development of an American National Standard.

1.4 Notice

Unless otherwise directed by the head of TIA's Standards Program, when TIA receives a Patent Holder Statement with either Paragraphs (2a) or (2b) of ANNEX H marked, the Standard shall include a note as follows:

NOTE: The user's attention is called to the possibility that compliance with this document may require use of one or more inventions covered by patent rights.

By publication of this Standard, no position is taken with respect to the validity or scope of any claims of such rights or of any patent rights in connection with this Standard. The Patent Holder(s) so far identified to TIA have, however, filed statements of willingness to grant licenses under those rights on reasonable and nondiscriminatory terms and conditions (either with or without monetary compensation) to applicants desiring to obtain such licenses for the purpose of practicing any or all Normative portions of this Standard for the field of use of practice of the Standard. Details regarding the filed statements may be obtained from the TIA.

2. *Inclusion of Software as a Normative Element (Mandatory, Optional or Alternate)*

The purpose of this Section is to provide guidance in the event a Formulating Group decides to incorporate Software in a Standard under such circumstances that any party seeking to practice the Standard may require a copyright license to do so. In other words, it is intended to cover the situation where the practice of the Standard in the absence of a copyright license would necessarily infringe copyright in the Software. Since, unlike patents, a copyright grants to its owner the right to exclude others from copying a particular expression of an idea, or several ideas, without granting protection to the ideas expressed, it is clear that such rights are substantially different from those involved when a patent is issued. Some Software is protected by patents. These guidelines are not concerned with such cases. These guidelines are in addition to the provisions contained in this TIA Engineering Manual, which deal with the grant of copyright to TIA, with certain sublicensing rights, for the purpose of printing, distribution and other reproduction of Standards and other TIA Publications.

2.1 *General Considerations*

In general, TIA discourages Formulating Groups from including essential copyrighted Software in a Standard in such a manner that the Standard cannot be practiced without infringing the copyright rights in the absence of a license. It should also be noted that if a different expression of the same ideas as are contained in the copyrighted software is possible so those wishing to do so may practice the Standard without infringing the copyright, then such copyright is not deemed essential and these guidelines do not apply.

2.2 Exclusions

Object Code shall never be included in a TIA Standard as a Normative element. Object Code may be included for Informative purposes.

2.3 Source Code

In the event a Formulating Group, for technical reasons, concludes that is necessary for essential Software to be included in a Standard, the procedures outlined in Section 2.4 shall be followed. An example of such a conclusion may be the use of complex algorithms in speech coders in which only one algorithm can be used for interoperability purposes.

2.4 Procedures

If a Formulating Group is considering a decision to incorporate copyrighted Software as a Normative element in a Standard, then the following shall apply:

- (a) Software Copyright Holder shall submit, in addition to a submission cover sheet with required elements as specified in Section 6.4.5, and as part of its submission, a Software Copyright Statement in the form of ANNEX G, "Software Copyright Holder Statement" attached hereto.
- (b) if the Formulating Group so decides, a submission of Software will not be considered for inclusion in a Standard unless the Software Copyright Holder agrees to grant a license to all who apply for it for the purpose of evaluating the Software for inclusion in the proposed Standard, then such agreement shall be in the form of ANNEX I, "Software Evaluation License" attached hereto.
- (c) the Formulating Group shall use reasonable efforts to define responsibility for the maintenance of the Normative Software.

Metric Policy

As shown in the *TIA Style Manual (Section 4.8)*, the International System of Units (SI), as specified in *ANSI/IEEE-268* or its subsequent revisions, shall be used in TIA Standards. Dual dimensioning can be used if explained in the foreword or introduction.

Definitions and Terms

An understanding of the terms below will be helpful in following the text of this Manual.

Addendum – a document which supplements an existing standard and

- i. Adds technical requirements to an existing standard that do not change previously published requirements; or
- ii. Revises one or two portions of a large existing standard.

Advisory Note - text to change or modify the current Engineering Manual until revised and approved by ANSI. The proposed text must be approved by the Technical Committee prior to release, and is withdrawn after it has been incorporated into the next version of the Manual. (See Section 14)

American National Standard (ANS) - a standard developed by an ANSI-accredited standards developer and approved by the ANSI Board of Standards Review.

American National Standards Institute or ANSI – serves as administrator and coordinator of the United States private sector voluntary standardization system. Founded in 1918 by five engineering societies and three government agencies, the Institute remains a private, non-profit membership organization supported by a diverse constituency of private and public sector organizations and accredits standards developers in the United States.

ANSI does not itself develop American National Standards; rather it facilitates development by establishing consensus among qualified groups. The Institute ensures that its guiding principles – consensus, due process and openness – are followed by the almost 200 distinct entities currently accredited under the Federation's accreditation program

Association - (when capitalized) The Telecommunications Industry Association.

Ballot – as used in this Manual, there are two types of ballots: Letter Ballot and Standards Proposal Ballot (See specific definitions).

Bulletin - although not a Standard, contains technical information that may have significant value to industry or users. Most often, TIA publishes Telecommunications Systems Bulletin (TSB); however, other types of Bulletins exist. (See Section 8.2)

Consensus – established when those participating in the consideration of the subject at hand have reached substantial agreement. Substantial agreement means more than a simple majority ($\geq 51\%$), but not necessarily unanimity. Consensus requires that all views and objections be considered and that a concerted effort be made toward their resolution. Consensus may also be achieved when the minority no longer wishes to

articulate its objection. The opinions of the minority should be recorded with the report of the substantial agreement (consensus) of the majority.

Consensus Body –

- 1) the registered voters of a ballot, whose votes are used to determine approval of the content and evidence of consensus
- 2) those eligible to vote at a formulating group meeting

Contribution - as defined in Section 6.4.2 of this Manual.

Division - an affinity grouping of TIA Member companies by product category. (See Section 2.1)

Engineering Committee - a Committee of volunteer members, established under the authority of the TIA Technical Committee to formulate Standards and provide other engineering functions in support of the TIA. (See Section 3.1)

Erratum - a document which corrects a manifest mistake or omission in the original text of the Standard or an error subsequently discovered.

Essential Patent - only the claim(s) of a patent (whenever issued) which is (are) necessarily infringed by the practice of a Normative portion of a TIA Standard.

Formulating Group - Engineering Committee, Subcommittee, or Working Group that specifically has been delegated formulating authority to develop standards. It elects its leadership and conducts all of its meetings with the same formality (e.g., notice of meetings, meeting reports, voting lists, recorded votes, etc.), and within the authority granted by its parent body. Such term does not include a Task Group. (See Section 3.1)

Interim Standard or IS - a term used by TIA until 2001 to indicate a standard released for a limited period, prior to its being submitted for approval as an American National Standard. All interim standards in effect *upon the date* of the adoption of 3rd edition of the TIA Engineering Manual (July 2001) shall be governed by the TIA Engineering Manual dated 1991.

Joint Standards Document or JSD - standard developed by a Joint Standards Group comprised of two or more internal or internal/external entities of Standards Developing Organizations. (See Section 6.1.1)

Interest Category – classification of the respondents to a Standards Proposal Ballot is required by ANSI. The categories used by TIA are (See Section 3.2.2):

Producer - a manufacturer, fabricator or designer capable of producing a product or device being standardized;

User - a company or organization or individual that implements the product or item standardized

Producer/User - a company or organization that both produces the product or device or standardized item and also implements the product or item standardized;

and

General Interest - any interested party not defined in the other listed categories, this may include regulatory agencies, researchers, other organizations and associations and consumers.

Letter Ballot – submitted to the TIA Standards Secretariat for distribution to specified TIA Formulating Group(s). It is issued for no less than 30 days, but at the Chair’s discretion can be issued for a longer period of time. It can also be extended if it is determined that a simple majority of Formulating Group member ballots have not been returned.

Member (of the TIA) - a company holding general class membership in the TIA. (See Section 2.1)

Member (Formulating Group) - a company or organization which holds voting status in a TIA Formulating Group, but not necessarily a TIA Member. (See Section 3.2)

Normative (alternate) elements - those elements of a Standard, any one or more of which may be complied with in order to claim conformity with the Standard.

Normative (mandatory) elements - those elements of a Standard which always must be complied with in order to claim conformity with the Standard.

Normative (optional) elements - those elements of a Standard which may be selected in order to claim conformity with the Standard and which if selected, must be implemented as specified in the Standard.

Object Code – instructions which can be directly run by a computer. Object code is not intended to be human-readable, and generally can be used only on a subset of computers or systems. For the purposes of this document Object Code includes, but is not limited to, dynamically linked libraries, object code libraries, and binary executable code. (Definition based on ITU TSB Director’s Ad hoc Group on IPR Software Copyright Guidelines – Issue 2.1)

Patent Holder – a party having the legal ability to grant licenses with respect to patents under the conditions provided by the TIA IPR Policy.

Public Review Document – a Standards Proposal announced in the *ANSI Standards Action* for a 30, 45 or 60-day review and comment period.

Publication - any TIA Standard and Technology Department document that is published by the department and available for sale or distribution to the general public. It does not include documents intended for distribution to only members of Formulating Groups.

Quorum – a simple majority of the listed voting member companies in a formulating group (See Section 5.3.2)

Reference Document – the associated Project Initiation Number, Standards Proposal number, reserved or actual document number, or designated title of a Standard as provided by the TIA Standards Secretariat.

Simple Majority - 50% of those eligible to vote, rounded down to an integer value plus 1

Software -- a program, or portion thereof, written in Source Code regardless of programming language or storage medium used.

Software Copyright Holder – a party having the legal ability to grant licenses with respect to Software copyrights under the conditions provided by the TIA IPR Policy.

Source – the owner of the copyright or license right, if any, submitted in a submission. Examples include a company's name, an individual's name, or an organization's name. In the case of a United States government agency, it is acceptable to list the agency name even though the material submitted by the government is in the public domain.

Source Code – the input to a compiler, interpreter, or assembler which can be processed to produce Object Code. Source Code is intended to be human-readable, and in principle can be converted to Object Code usable on any computer or system. (Definition based on ITU TSB Director's Ad hoc Group on IPR Software Copyright Guidelines – Issue 2.1)

Specification - as used in this Manual, a document which is a form of Standard prepared specifically to facilitate procurement that clearly and accurately describes the essential technical requirements for purchased material. Procedures necessary to determine that the requirements for the purchased material covered by the Specification has been met are also referenced or included. (See Section 6.2)

Standard (TIA) - as used in this Manual, a document that establishes engineering and technical requirements for processes, procedures, practices and methods that have been adopted by consensus. Standards may also be established for selection, application and design criteria for material. (See Section 6.2)

(1) TIA Standards – a Standard developed through the consensus process of a TIA Formulating Group that is submitted as a Letter Ballot to the TIA Standards Secretariat. It is not necessary for the document to be submitted for the ANSI public

review period because the Standard is not designated as an American National Standard at the time of ballot. (See Section 6.2)

(2) ANSI/TIA Standards – a Standard developed through the consensus process of a TIA Formulating Group that is submitted as a Standards Proposal Ballot to ANSI for a public review period. The voting record and relevant documentation must be approved by the ANSI Board of Standards Review before it is approved and designated as an American National Standard developed by TIA. (See Section 6.2)

Standards Development Organization (SDO) – there are at least two types of standards development organizations. The first type is an organization in the United States accredited by ANSI that uses a method of consensus development in which the standards developer must develop its own operating procedures. The procedures must meet the requirements of the ANSI Procedures. By choosing to use this method, flexibility is provided, allowing the standards developer to utilize a system that accommodates its particular structure and practices. Entities outside the United States are also referred to as SDOs, but the body that accredits or authorizes the operating procedures is unique to a particular country or region. The second type of SDO is an organization which develops standards but is not accredited by ANSI or some body that accredits or authorizes the operating procedures unique to a particular country or region.

Standards Proposal Ballot – used for approving the creation, revision, reaffirmation or withdrawal of an American National Standard. It is submitted to the TIA Standards Secretariat with the appropriate Ballot Authorization form by the Formulating Group for distribution to the registered voters for the subject standard. The formulating group may request a 45-day Public Review instead of the normal 60-day Public Review if the document meets the ANSI guidelines for 45-day Public Review. All Standards Proposal Ballots designated for 45-day Public Review must be available electronically to the requestor. The availability of the document must be announced in ANSI's *Standards Action*.

Sub-Element –any Subcommittee, working group or ad hoc group under the auspices of a Formulating Group

Supplemental Representative - an individual designated by a company or organization which is a Member of a Formulating Group, to receive Committee mailings, but is not the Voting Representative. (See Section 3.2.3.3)

Technical Committee - one of the special committees created by the Board of Directors of the TIA to set policy for the operation of the TIA engineering program. (The Technical Committee is not to be confused with "Engineering Committee"). (See Section 2.4.1)

Technical Standards Subcommittee (TSSC) - a Subcommittee of the Technical Committee, which performs a specific role in the Standards approval process. (See Section 2.4.2 and ANNEX A)

Telecommunications Systems Bulletin or TSB - a document proposed by a Formulating Group to publicize material which, although not a published Standard, may have significant value to industry or users. On occasion, a TSB may be used to bring important information to the attention of industry and the public prior to the publication of a Standard on the same subject, but a TSB is not a Standard, and must bear a statement to that effect. Accordingly, a TSB shall not modify or amend any existing Standard, but may announce planned enhancements or modifications for a particular Standard. The defined purpose of a TSB is to be informative in nature and shall not contain any Normative elements, including in the annexes.

TR- Committee - an Engineering Committee sponsored by one of the TIA's product-oriented Divisions. The designator "TR" is historic, and probably refers to "transmitters", although a modern definition would be "Telecommunications Requirements."

Voting Representative - an individual designated by a member company to vote on its behalf. (See Section 3.2.3.1)

1 Objective

The engineering activities of the TIA are organized to conduct standardization programs and to provide other appropriate technical and engineering services within the scope of the Association, subject to policies established by the Board of Directors. All activities must be conducted within the Legal Guides established by the Association (See ANNEX B).

2 Organization

2.1 General

The TIA is a trade association serving manufacturers, suppliers, distributors, and users of telecommunications equipment and systems. General members are companies (or a division of a company) formed under the laws of the United States engaged in the business of developing, manufacturing, distributing, selling, installing, launching or consulting in respect to, communications or information technology products (including software) or services other than common carrier services. TIA publishes a *Standards and Technology Annual Report (STAR)* that covers the activities of the Standards and Technology Department and the Engineering Committees and is available on the TIA website.

The affairs of the Association are managed by the Board of Directors elected from the TIA Membership. The general operations of the Association and its Staff are under the direction of the President who is also a member of the Board. The Board has created standing committees to establish policy and carry out specialized programs within the scope of the standing committee.

In addition to the general activities of the Association, Member companies have the option of associating with one or more of the TIA's product-oriented Divisions in such product areas as: Fiber Optics, Wireless Communications, Network Equipment, Satellite Communications, and User Premises Equipment.

2.2 Standards and Technology Department

The Standards and Technology Department is one of many departments of the TIA and provides services to the various TIA product-oriented Divisions, the standing committees, and the TIA general membership. All TIA Engineering Committees fall under the jurisdiction of the TIA Technical Committee of the TIA Board of Directors. TIA product-oriented Divisions and other trade associations often outline technical needs to the Standards and Technology Department for action, the result of which may take the form of TIA Standards, Specifications, Bulletins, or other publications, technical positions on government regulations or military specifications, formulation of positions on international and regional Standards, or the sponsoring of technical conferences and symposia. ANSI requires open membership in the Formulating Groups to all interested parties when developing American National Standards. Since the product-oriented Divisions are only open to general members, direction and guidance from the Division

on technical matters within the scope of the Formulating Groups is advisory and not mandatory.

2.3 Administration

The head of TIA's Standards Program reports to the President and is responsible for carrying out the engineering activities of the Department. The responsibilities include the management of the Standards and Technology Department Staff and facilities, and general guidance of the activities of the Committees.

Any of the Standards staff may assist the head of TIA's Standards Program in the conduct of work of the Standards and Technology Department.

2.4 Structure

At the highest level, the TIA Board of Directors oversees the affairs of the Association and directs its President and professional staff. The technical affairs of the Association are under the TIA Technical Committee. The Standards and Technology Department staff provide administrative support to the Technical Committee and its sub-elements, , and the Engineering Committees and their sub-elements. A current organizational chart can be found in *the Standards and Technology Annual Report*.

2.4.1 TIA Technical Committee

The Technical Committee is one of the special committees created by the Board of Directors and chaired by a member of the Board to oversee the Standards and Technology Department and the standards program. The Technical Committee has overall responsibility for establishing the broad technical policy of the Association, including the organization and operating policies of the Standards and Technology Department and Engineering Committees, and advises the Board of Directors on technical issues. The Technical Committee monitors the activities of TIA's Formulating Groups and TIA's liaison and coordination with ANSI and domestic and international standards-setting organizations. From time to time the Technical Committee may create Subcommittees or Working Groups to address specific issues as necessary. All Engineering Committees are under the authority and jurisdiction of the Technical Committee. The Technical Committee acts as the contact point for members' technical concerns.

2.4.2 TIA Technical Standards Subcommittee (TSSC)

The Technical Standards Subcommittee (TSSC) is a special Subcommittee of the TIA Technical Committee.

TSSC ensures there is liaison internally and externally so that TIA Standards activities remain within assigned Scopes. The TSSC approves all Scopes of new Engineering Committees and revisions to those Scopes. The TSSC monitors the overall Engineering Committee work program at TIA and provides guidance as necessary.

When conflicts develop between Formulating Groups, the TSSC will attempt to resolve the conflict, and failing a resolution will escalate the matter to the Chair of the Technical Committee for appropriate action.

In addition, the TSSC reviews projects being undertaken by other Standards Development Organizations (SDO) to determine if there is overlap of projects between TIA and other SDOs.

The TSSC has given the Standards Secretariat the authority to review and approve Standards Proposals for creation, reaffirmation, revision, and withdrawal of a proposed document that has no unresolved comments. The full membership of the TSSC will review all Standards Proposals that have unresolved comments before recommending the document for publication to ANSI.

The membership and operating procedures for the TSSC are set forth in ANNEX A.

2.4.3 TIA Intellectual Property Rights Standing Committee

The Intellectual Property Rights Standing Committee (IPR SC) is one of the special committees created by the Board of Directors. It is chaired by a person designated by the Board, who is usually an attorney. The IPR SC has overall responsibility for monitoring and overseeing the intellectual property rights policy of TIA, including all relevant portions of TIA's Engineering Manual. The IPR SC may, from time to time, on its own initiative or at the request of other committees, prepare policy statements relating to IPR and standards and liaise with TIA's Policy and Technical Committees as appropriate. The IPR SC is available to assist the Technical Committee and all TIA Formulating Groups in understanding TIA's IPR policy and to assist such groups in carrying out their functions insofar as IPR legal issues are concerned. From time to time the IPR SC may create subcommittees or working groups to address specific issues as necessary. The IPR SC will assist the Technical Committee insofar as such assistance is requested and will generally communicate its activities to the Technical Committee.

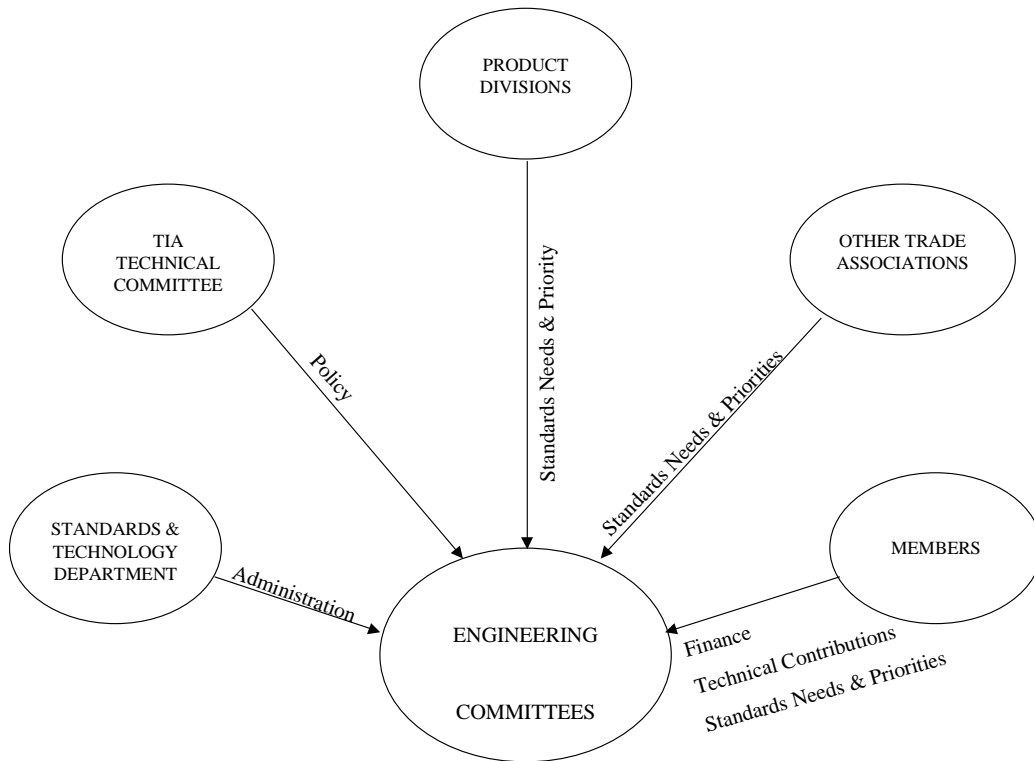
TIA's general counsel, corporate counsel and the head of TIA's Standards Program, shall all serve as members of the IPR SC. Any member in good standing of TIA may designate a person to serve on the IPR SC. In addition, any company or other legal entity which is a member in good standing of a Committee of TIA engaged in the formulation of standards may designate a person to serve on the IPR SC. The TIA Standards and Technology Department shall furnish such clerical assistance and other help as may be necessary for the functioning of the IPR SC.

3 Engineering Committees

The work of the Standards and Technology Department is conducted through its Engineering Committees and their sub-elements with the assistance of the Standards and Technology Department Staff.

3.1 Establishment and Dissolution of Engineering Committees

The Chair of the Technical Committee has authority to create Engineering Committees and to dissolve those that are no longer needed, subject to the approval of the Technical Committee membership. Such Engineering Committees normally will be organized to correspond to the appropriate product structures of the TIA product-oriented Divisions. Engineering Committees also may be organized directly under the auspices of the TIA Technical Committee when the planned work is interdisciplinary or when other circumstances dictate (as shown below).



3.1.1 Election of Leadership

The election to the office of Chair and Vice Chair of an Engineering Committee is a personal one, not directly tied to a person's employer. However, TIA and ANSI have policies that require balance in Committee structures. No one company should dominate a Committee's leadership positions. In addition, when an individual is initially a candidate for a leadership position or when that individual changes employers, the support of their company or organization is required.

The Chair of the Technical Committee shall appoint a facilitator for any newly organized Engineering Committee. A new Engineering Committee shall elect a candidate by the

end of its second meeting to serve a two-year term, and the term of office shall begin at the close of the meeting at which they are elected. Leadership elections shall be held in accordance with the election procedures described in Section 4.

The new Engineering Committee shall forward the elected candidate's name to the Chair of the Technical Committee and TIA Standards Secretariat for confirmation.

The Chair of the Technical Committee in consultation with the Standards Secretariat shall review the candidate's eligibility requirements as herein (See Section 4.1) provided. If the candidate is eligible, the Chair of the Technical Committee shall confirm the candidate to the office to which he/she was elected. If the candidate is ineligible, the Chair of the Technical Committee shall so advise the Engineering Committee in question and re-initiate the election procedure by appointing a facilitator.

The Chair of an Engineering Committee shall appoint a facilitator for any newly organized sub-element. A new sub-element shall elect a candidate by the end of its second meeting to serve a two-year term, and the term of office shall begin at the close of the meeting at which they are elected. New leadership elections shall be held in accordance with the election procedures described in Section 4.

The Chair of the Engineering Committee, which has organized the new sub-element, shall forward the elected candidate's name to the Chair of the Technical Committee and TIA Standards Secretariat for confirmation. The Chair of the Technical Committee in consultation with the Standards Secretariat shall review the candidate's eligibility requirements as herein provided. If the candidate is eligible, the Chair of the Technical Committee shall confirm the candidate to the office to which he/she was elected. If the candidate is ineligible, the Chair of the Technical Committee shall so advise the Engineering Committee in question and re-initiate the election procedure by appointing a facilitator.

Chairs and Vice Chairs of even numbered Formulating Groups shall stand for re-election in even numbered years (i.e., 2000, 2002), Chairs and Vice Chairs of odd numbered Formulating Groups shall stand for re-election in odd numbered years (i.e., 2001, 2003). This will ensure continuity when leadership changes.

3.1.2 Dismissal of Leadership

If requested by a simple majority of the Formulating Group voting membership (at a meeting or in writing) a 30-day secret Letter Ballot of the voting membership shall be conducted for the proposal to dismiss a Chair or Vice-Chair. For dismissal at least 75% of the votes cast must be in favor of dismissal. The parent Committee Chair and Technical Committee Chair shall confirm the dismissal process.

3.1.3 *Establishment and Dissolution of Subcommittees, Working Groups, or Task Groups*

Subcommittees, Working Groups, or Task Groups may be established by approval of an Engineering Committee if deemed necessary to carry out its mission.

- (1) **Subcommittees** normally will be formed when it is desirable to divide responsibility for the subject matter falling within the scope of an Engineering Committee. Subcommittees, like their parent Committees, have no fixed term of existence and are intended to continue to exist until there is no need. Subcommittee Chairs and Vice Chairs shall be elected by the Subcommittee Membership, using the same processes and subject to the same term limitations as that of Engineering Committee leadership. The Chair of the parent Engineering Committee may dissolve the Subcommittee, with the approval of the Engineering Committee when it is no longer required.
- (2) **Working Groups** are established by approval of an Engineering Committee or Subcommittee for specific purposes, such as (but not limited to) developing a draft of a specific Standard or Specification, and may be dissolved by the Chair of the parent body when their function is no longer required. The specific purpose for which the Working Group was established is the Scope of the Working Group. The Chair of the Working Group is appointed by the Chair of the parent body except when the Working Group is a formulating body. If a Working Group is granted formulating authority, its leadership shall be elected as described for Formulating Groups and it must follow all procedures for submitting meeting notices, agenda, reports and submit a Scope (see Section 3.1.4) to the parent Committee or Subcommittee. The Vice Chair is appointed by the Chair of the Working Group with the provision that the Vice Chair is not from the same company as the Chair.
- (3) **Task Groups or ad hoc groups** are bodies that are established by approval of an Engineering Committee, Subcommittee, or Working Group to address a specific problem as part of the larger body. The specific purpose for which the Task Group or ad hoc group was established is the Scope of the Task Group or ad hoc group. Task Groups meet informally and do not have a standard-formulating mission. The Chair of the parent body shall dissolve the task or ad hoc group when the purpose for which it was formed has been completed. Appointment of a Task Group Chair (where appropriate) and dissolution of the Task Group are functions of the Chair of the parent body. The Vice Chair is appointed by the Chair of the Task Group or Ad Hoc Group with the provision that the Vice Chair is not from the same company as the Chair.

An alphanumeric designation of the pattern *TR-XX* (e.g., *TR-15*) will be assigned to each Engineering Committee by the TIA Standards and Technology Department. Subcommittees shall be designated by the addition of a decimal and a numerical suffix; e.g., *TR-15.1*, and Working Groups shall be designated by the addition of a further decimal and numerical suffix; e.g., *TR-15.1.1*. Where a Working Group or an ad hoc

group is directly attached to an Engineering Committee, the numerical suffix 0 (e.g., TR-15.0.1) or an alphabetical suffix (e.g., TR-15 ABC) may be used to so indicate.

3.1.4 Establishment and Revision of Formulating Group Scope

When a new Engineering Committee has been established, the elected Committee Chair shall be required to submit a proposed Committee Scope, defining the technical area of responsibility, for the review and approval of the head of TIA's Standards Program and the TSSC. When approved and published, that scope becomes the principal guide for the work of the Committee. Subcommittee Scopes must be within the parent Engineering Committee Scope and should be forwarded to the parent Engineering Committee for initial approval. The Scope approved by the parent Engineering Committee shall then be transmitted to the TSSC for final approval and publication. Formulating Group Scopes do not require ANSI approval.

Scopes of all Engineering Committees and Subcommittees are published by the Standards and Technology Department in a Committee Scope Manual supplied to all Engineering Formulating Group Chairs. The Scope Manual is posted on the TIA web site.

3.1.5 Formulating Group Functions

TIA Formulating Groups shall develop projects listed in Section 6.1, as well as contribute to the development and coordination of U.S. positions (See Section 3.2.1) on technical matters related to international, regional, and other national Standards bodies. The TIA Formulating Groups may also provide assistance, information, and recommendations on engineering matters to the product-oriented Divisions, the standing and special committees, the officers, and the Board of Directors of the TIA. The Formulating Groups may also select delegates that will represent the group in meetings with other standards groups. In addition, at the suggestion of their sponsoring Divisions or the Standards and Technology Department, they may engage in other engineering-related activities in keeping with their scopes and the TIA Legal Guides.

3.2 Application for Membership to Formulating Groups

Application for membership on a TIA Formulating Group shall be submitted either in writing or via e-mail to the TIA Standards Secretariat who will forward a copy to the Chair of the Formulating Group. An organization requesting membership shall state its reason(s) for seeking membership and the relevant contact information for its designated representatives. The organization shall designate one such representative as its Voting Representative and may designate additional parties as Supplemental Representatives. The TIA Standards Secretariat will inform the party of the fees involved, if any, and the rules for participation. The Secretariat will also inform the requester of the requirement to attend two meetings to demonstrate an active interest and to obtain meeting voting rights. The requirements to maintain meeting voting rights will also be provided. The TIA Standards Secretariat will advise the Formulating Group Chair on the verification of status and whether all TIA general class member dues or non-member fees have been paid. (See Section 3.2.9)

3.2.1 Eligibility for Participation in Formulating Groups

Participation in Engineering Committees and their sub-elements is open to any person or company (or comparable body)¹ that has a direct and material interest within the respective jurisdiction of the Formulating Groups. TIA Membership is not a prerequisite to participation. (See Section 3.2.4 for government participation.)

The working language for all such Committees and sub-elements shall be English.

Persons participating in such programs should be technical personnel. Under some circumstances, eligibility for Membership may be limited by circumstances beyond the TIA's control, such as government regulations, the need for security clearances, etc. Any question as to eligibility shall be referred to the TIA Standards and Technology staff person assigned to a respective Formulating Group. Whenever government regulations or government policies require, or the need to develop a USA-only position or recommendation arises, that portion of a meeting may be limited to USA participants² only.

3.2.2 Balance

All appropriate interests that might be directly and materially affected by the standards activity of the committee shall have the opportunity for fair and equitable participation without dominance by any single interest category, individual or organization. TIA's established interest categories are: (a) Producer, (b) User, (c) Producer/User, and (d) General Interest (see Definitions and Terms). Interest categories appropriate to the development of consensus in any given standards activity are functions of the subject of the standard being developed. The voting representative may select his/her interest category as appropriate to each standard being developed.

The standards development process should have a balance of interests. Participants from diverse interest categories shall be sought with the objective of achieving balance. Historically the criteria for balance are that a) no single interest category constitutes more than one-third of the membership of a consensus body dealing with safety-related standards or b) no single interest category constitutes a majority of the membership of a consensus body dealing with other than safety-related standards.

Dominance means a position or exercise of dominant authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints.

¹ A company (or comparable body) is a corporation, other legal entity, partnership, or sole proprietorship organized under the laws of a specific country or countries. Comparable bodies include organizations; associations; trade unions; and institutions, including government agencies and international organizations.

² A USA Participant is a company or comparable body organized under the laws of any state of the United States of America.

Unless it is claimed in writing (including electronic communications) by a directly and materially affected party that a single interest category, individual or organization dominated the standards development process, no test for dominance is required.

3.2.3 Company or Organizational Representation

3.2.3.1 Voting Representative – One Company, One Vote

Membership in TIA Formulating Groups is vested in companies (or comparable bodies) whether TIA Member or non-Member³. An individual designated by the company is placed on the list of Voting Representatives and exercises full Membership privileges after the company has been represented at two consecutive meetings and such voting right vests after quorum (See Section 5.3.2) has been established at the second meeting attended⁴. (See Section 3.2.5 below for Membership voting continuation requirements.)

Representatives on Engineering Committees and sub-elements are considered to be acting for their respective companies or organizations in developing an industry position on issues before such Formulating Groups. Voting representation from any company or organization is limited to one representative on any Formulating Group or sub-element⁵. Where a company includes several divisions or subsidiaries, voting representation is limited to one person from that company unless it can be shown that the operations are so different as to represent different interest categories (i.e., one company, one vote).

3.2.3.2 Alternate Voting

When the designated Voting Representative is not present at a Formulating Group meeting or is unavailable to respond to a ballot, any other employee or representative of that company may be designated by it to exercise Formulating Group Membership privileges, including voting, on behalf of that Member. In such case, only one such company representative may vote, per the requirements of 3.2.3.1, above.

3.2.3.3 Supplemental Representative

In addition to the Voting Representatives list referred to above, the TIA maintains a supplemental mailing list, and individuals whose names appear on this list receive copies of all Formulating Group correspondence distributed by the TIA.

³ Non-Member participation fees may be charged. See Section 3.2.9. Further details are available from the Standards and Technology Department.

⁴ This two-meeting requirement applies in the case of joining an existing Formulating Group, and does not apply when a new Formulating Group is being established or reorganized.

⁵ Some TIA Engineering Committees have traditionally chosen to operate as administrative groups coordinating the work of their Subcommittees, which function as the Formulating Groups. The Members of such Committees are often the Subcommittee Chairs, and are representing the Membership of the Subcommittees, rather than their individual companies. It may occur that two or more of the Subcommittee Chairs are employees of the same company. In such case, the TSSC may waive the one company, one vote provision of 3.2.3.1.

Non-members of the TIA holding voting Membership status in a Formulating Group may place additional names on the supplemental mailing list upon payment of a service fee per name, per list.

Member companies of the TIA may place additional names on the supplemental mailing list without charge for up to 10 individuals, and may place further additional names on the supplemental mailing list upon payment of a service fee per name, per list. Deviations from this policy require approval of the TIA head of TIA's Standards Program.

Persons whose names appear on the supplemental mailing list are not recognized as the Voting Representative, but when a vote is cast in the absence of the regular Voting Representative (Section 3.2.3.1), it is desirable that the vote be cast by an individual who has been receiving Formulating Group correspondence through the supplemental mailing list and who has been participating regularly in Formulating Group meetings.

3.2.3.4 Multiple Votes

No individual may vote or cast a ballot on behalf of more than one Member. No proxy or absentee ballots will be recognized.

3.2.4 Government Participation

The TIA, through its Standards and Technology Department, provides a forum for the writing and maintenance of voluntary industry Standards and Specifications that relate to the products and services its Members and others provide. The TIA desires and encourages the active participation in its Standards-developing activities of all parties having a direct and material interest in its Standards, including U.S. or other federal, state, and local government entities when they have such a direct and material interest. Contribution to the Standards-making process may take the form of liaison with appropriate Formulating Groups, participation in the open industry balloting of Standards Proposals, or active participation in Formulating Groups. Because Standards-making depends on consensus rather than the will of a simple majority, participation in the consensus-building process, in any of the forms described above, is of far greater significance than the final act of voting in a Committee.

Agencies at all levels of federal, state, and local government are encouraged to participate in TIA Standards-making activities when they have a direct and material interest in the Standards work and are willing and able to commit to full and consistent participation at any of the levels described above.

TIA provides many alternatives to encourage government entity participation:

1. If a government entity chooses to participate in a Formulating Group on a non-voting basis, all fees are waived. The names of the participants will be entered on the supplemental mailing list of the Formulating Groups, entitling those representatives to all Formulating Group-related correspondence distributed by the TIA.

2. If a government entity chooses to participate in a Formulating Group on a voting basis, active participation is required by such government designees (See Section 3.2.5) and a participation fee is assessed (See Section 3.2.9). State and local jurisdictions in particular may find it more practical to be represented by their respective national associations which can consolidate their inputs.
3. Recognizing the limited resources of many government agencies, TIA offers an additional *optional* fee waiver provision that will provide voting rights:
 - a) If all branches and agencies of a **federal** government who have requested to participate in a Formulating Group on a voting basis designate one representative to represent the interests of all such branches and agencies, then the normal non-member participation fees will be waived as respects participation by such designee. (See Section 3.2.9 and paragraph 2 above.)
 - b) If all branches and agencies of a **state** government who have requested to participate in a Formulating Group on a voting basis designate one representative to represent the interests of all such branches and agencies, then the normal non-member participation fees will be waived as respects participation by such designee. (See Section 3.2.9 and paragraph 2 above.)
 - c) If all branches and agencies of a **local** government who have requested to participate in a Formulating Group on a voting basis designate one representative to represent the interests of all such branches and agencies, then the normal non-member participation fees will be waived as respects participation by such designee. (See Section 3.2.9 and paragraph 2 above.)

3.2.5 Membership Voting Continuation

Continuation of voting status as a Member of any Formulating Group or sub-element depends upon active participation in the work program. There are two types of participation: attendance at meetings and responding to ballots. An Engineering Committee will choose one of the two types (Option A or Option B) for use in that Engineering Committee, and its sub-elements.

Option A (includes ballots)

The criterion for removal of a company (or organization) from voting status in a Formulating Group is absence from three consecutive meetings. If a Member of a Formulating Group does not respond to any Formulating Group ballots that close between any two consecutive meetings of the Formulating Group, then it shall be counted as a single absence for the purpose of maintaining voting status.

When a company holding voting status in a Formulating Group has gone unrepresented for three successive meetings or does not respond to at least 50% of the Formulating Group ballots between successive meetings, the Chair shall so advise the Staff unless, on a case-by-case basis, failure to attend or vote on ballots are excused. The Chair shall notify the company of its failure to meet minimum participation requirements and shall remove the company and its representatives from the list of voting Members.

Reinstatement requires a resumption of participation in the Committee's work, and participation in two consecutive meetings.

If a member of a Formulating Group votes on ballots between any two consecutive meetings of the Formulating Group, then it shall be counted as a single attendance for the purposes of maintaining voting status.

The Chair shall notify the Staff when reinstatement requirements have been met.

Formulating Group Chairs are required to enforce the Membership continuation rules in order to maintain their ability to raise a quorum at meetings. (See Section 5.3.2) In addition, any participant in default of payment of fees may have membership rights dropped or suspended (See Section 3.2.9)

Formulating Group Chairs should also encourage Member companies to ensure that the person shown on the distribution lists as their Voting Representative is in fact the person who attends Formulating Group meetings.

Formulating Group Chairs shall be responsible for notifying the TIA Standards Secretariat of who the eligible member companies are when the ballot authorization form is submitted under this option.

Option B (excludes ballots)

The criterion for removal of a company (or organization) from voting status in a Formulating Group is absence from three consecutive meetings.

When a company holding voting status in a Formulating Group has gone unrepresented for three successive meetings, the Chair shall so advise the Staff unless, on a case-by-case basis, failure to participate or attend is excused. The Chair shall notify the company of its failure to meet minimum participation requirements and shall remove the company and its representatives from the list of voting Members. Reinstatement requires a resumption of participation in the Committee's work, and participation in two consecutive meetings. The Chair shall notify the Staff when reinstatement requirements have been met.

Formulating Group Chairs are required to enforce the Membership continuation rules in order to maintain their ability to raise a quorum at meetings. (See Section 5.3.2) In addition, any participant in default of payment of fees may have membership rights dropped or suspended (See Section 3.2.9)

Formulating Group Chairs should also encourage Member companies to ensure that the person shown on the distribution lists as their Voting Representative is in fact the person who attends Formulating Group meetings.

3.2.6 Liaison Representatives

Formulating Group Chairs may appoint non-voting liaison representatives from other trade associations or professional societies when appropriate. Liaison arrangements

are usually made on a reciprocal basis. A liaison representative has full privileges of participation in Formulating Group activities and will receive Committee mailings but may not vote. Fees will be waived when a reciprocal arrangement exists. Requests or recommendations for liaison arrangements with non-U.S. counterpart or regional or international Standards bodies should be referred to the Standards and Technology Department.

3.2.7 *Observers*

Requests for status as an Observer at a meeting from other organizations or individuals should be referred to the Standards and Technology Department. A Chair or Staff may allow any person to observe one meeting without the payment of any fees or dues, in order to allow the person to see if their company or organization is directly and materially interested in the work of the Formulating Group.

3.2.8 *Non-U.S. Observers*

Requests from non-U.S. Standards Development Organizations, individuals, or companies for observer status will be considered on a case-by-case basis, and should be referred to the Standards and Technology Department. Since in some cases U.S. export laws and regulations may bar participation in the meetings or receipt of technical information, special rules apply to non-U.S. participants.

3.2.9 *Fees*

Since the operations of the Engineering Committees and the Standards and Technology Department are heavily subsidized from the dues paid by Association Members, a charge per Engineering Committee commensurate with costs is assessed to companies that desire to be Members of Engineering Committees but are not general class Members of the TIA. In order to encourage participation in the Engineering Committees by under-represented interest categories, this fee may be waived or reduced for such individuals belonging to an underrepresented interest category. After consultation with the Chair of the Formulating Group, the Standards & Technology Staff person assigned to oversee the Formulating Group will make the decision to waive or reduce fees based on the interest category represented.

Companies having a direct and material interest in the matters being considered for standardization in TIA Committees, who can demonstrate that they would be prevented from participation in the Standards formulation process by imposition of participation fees or special fees may seek partial or complete abatement of the fees on a hardship basis by contacting the Standards and Technology staff person assigned to oversee the Formulating Group. Since the cost of travel to attend meetings usually far outweighs the fees, such companies should also consider the alternative of participation in the pool of persons agreeing to receive unsolicited documents during the public review period, since this does not require meeting attendance. (See Section 6.6.2)

In providing information dissemination, meeting room arrangement, and other administrative expenses to Formulating Groups, TIA undertakes a major financial

commitment. Like any trade association, TIA's resources are finite. TIA will budget Standards activities based on historical information and revenue sources available to TIA. This budget will provide a finite amount of support. If Standards activities of Formulating Groups become extraordinary and exceed the budgeted resources, then the Formulating Group may be assessed an additional fee or asked to provide the additional resources internal to the Formulating Group.

Engineering Committees carrying out special projects which require the retention of outside labs or experts may also levy a voluntary assessment on themselves in order to finance the special expenses. Failure to pay such a voluntary assessment shall not bar a Member from further participation in the work of the Committee.

Some domestic Formulating Groups work closely with the U.S. Technical Advisory Groups (US TAGs) for the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Voting members may be assessed a participation fee. TIA Standards and Technology Department is responsible for the assessment or collection of such TAG administrative fees.

3.3 Responsibilities of Formulating Group Leadership

The Chair and Vice Chair of each TIA Engineering Committee or sub-element is responsible to:

- (1) Conduct group activities in accordance with the procedures prescribed in this Manual, especially Section 5, and the TIA Legal Guides as the presiding official to ensure a meeting that is prompt, efficient, and effective.
- (2) Prepare (or have a Committee Secretary prepare) meeting notices and agendas and meeting reports and have them sent to the TIA Standards Secretariat in time to provide adequate notice of upcoming meetings.
- (3) Request and prepare Project Initiation Notification System (PINS) and other authorization forms for transmittal to TIA Standards Secretariat.
- (4) Submit ballots in accordance with the Style Manual and Engineering Manual on a timely basis.
- (5) Provide adequate notice and information to the TIA staff about future meeting dates, locations, and facility requirements if TIA is to contract for the arrangements. If TIA has signed a hotel contract, then TIA staff must be involved in any modifications to requirements with the hotel or meeting location.
- (6) Ensure that attendance rosters are transmitted to TIA staff.
- (7) Ensure special provisions of the Engineering Manual such as the Early Disclosure Request Statement of the Patent Policy and compliance with Export Control regulations are communicated. (See Section 6.5.1).

- (8) Establish appropriate liaison whenever a matter in the work of an Engineering Committee or Formulating Group may concern another Department, Division, or standing committee within the Association. Liaison should also be established to organizations external to TIA including domestic and international Standards Development Organizations.
- (9) Ensure that elections are conducted for Chairs for Subcommittees and Working Groups when they have a standard-formulating mission. The election should follow the process and criteria set forth in Sections 3.1.1 and 4.
- (10) Appoint Chairs for Working Groups and Task Groups that do not have a standard-formulating mission.
- (11) Provide the Standards and Technology Department with current information for the maintenance of lists of Members, Voting Representatives, and Supplemental Representatives.
- (12) Oversee subordinate Subcommittees and Working Groups, ensure their activities are conducted in accordance with the agreed scope and in accordance with relevant procedures prescribed in this Manual, and prepare periodic and annual reports on Committee activities to be furnished to the Standards and Technology Department and the Technical Committee.
- (13) Conduct the meeting in a dignified and professional manner.
- (14) Elect a Vice Chair from among eligible candidates proposed by the Committee Membership and to create a Committee Secretary position to assist with the meeting reports and other administrative interfaces with the TIA Standards Secretariat. In the absence of a Committee Secretary, these functions are the responsibility of the Chair.
- (15) Represent the consensus of the Group even when said position is not aligned with the person's company position.
- (16) Lead the Group to consensus even when the consensus position is not aligned with the person's company position.

4 Election Procedures

The Chair and Vice Chair shall be elected by the Formulating Group to serve a two-year term or until their successors are elected. The terms of office shall begin at the close of the meeting at which they are elected. The anniversary of the election meeting shall be determined by each Formulating Group based on the conditions set in Section 3.1.1.

This election shall be conducted at a regularly scheduled meeting of the Formulating Group, and shall be announced in writing, to the Formulating Group, at least 30 days in advance of the meeting. When an election is held to fill the office of Chair, the announcement shall also indicate that there will be an election to fill the position of Vice Chair in the case where the Vice Chair may be elected to the office of Chair. If, at the

election, the Vice Chair is elected to the office of Chair, that individual shall become Chair immediately, the position of Vice Chair shall be assumed vacant, and an election shall be held for the office of Vice Chair. If, as a result of the election, the Vice Chair is not elected to the office of Chair, that individual shall remain Vice Chair and stand for re-election. In all other cases, the individual(s) elected shall assume office at the close of the meeting at which they are elected.

4.1 Eligibility for Formulating Group Chair and Vice Chair

Acceptance of the Chair of a TIA Formulating Group represents a major commitment of talent and support resources by an employer. In order to ensure that such a commitment exists and will be ongoing, it is the TIA's policy that Chairs of Formulating Groups be elected from among qualified representatives of organizations holding voting status in the Formulating Group.

Maintaining a leadership position on a Formulating Group can require a significant amount of time and travel. Individuals seeking such positions should ensure that their personal commitments and their employer's priorities will allow them the necessary resources to serve effectively and review the responsibilities required in Section 3.3. Candidates' employers shall submit a letter of support to the parent Committee Chair and the head of TIA's Standards Program that the candidate and employer will commit the time and resources required in fulfilling the position.

Vice Chairs are recommended because it is desirable to have continuity of leadership within Formulating Groups. Vice Chairs are to be elected using the same process as that used for Chair, and shall not be from the same member company as the Chair.

No individual should serve more than two consecutive terms as Chair, or more than two consecutive terms as Vice-Chair. Should no candidate come forward seeking election at the end of a Chair's or Vice Chair's first two year term, that Chair or Vice Chair may continue in office for another consecutive term. Should no candidate come forward seeking election at the end of a Chair's or Vice Chair's second two year term that Chair or Vice Chair may continue in office for additional consecutive terms with a waiver of the term limits. To obtain such waiver should no candidate come forward, at least 75% of organizations in good standing listed on the quorum list of the Formulating Group attending the election meeting must be in favor of the waiver.

If the Chair, or Vice-Chair, of a committee or subcommittee resigns, or is unable to fill the remaining term of office, then, in the case of a Chair, the Vice-Chair shall act as Chair until an election is held as soon as practical. If a Vice-Chair position is vacated, that position shall remain vacant until an election is held as soon as practical. The newly elected Chair or Vice-Chair shall serve out the remaining term of the vacated position. The time served as Chair or Vice Chair to fill the remaining term shall not be counted towards a term limit for that individual serving out the remaining term. However, if the remaining term is less than six months, the Chair of the parent committee shall appoint an individual to serve out the remaining term. This election shall be conducted at a regularly scheduled meeting of the Committee, shall be announced, in writing, to the Committee consistent with meeting notice guidelines

(Section 5.2) with an additional seven days, and shall be conducted by secret letter ballot. When an election is held to fill the office of Chair, the announcement shall also indicate that there may be an election to fill the position of Vice-Chair in the case where the Vice-Chair may be elected to the office of Chair. If, at the election, the Vice-Chair is elected to the office of Chair, that individual shall become Chair immediately, the position of Vice-Chair shall be assumed vacant and an election should be held for the office of Vice-Chair. In all other cases, the individual(s) elected shall assume office at the close of the meeting at which they are elected or upon the occurrence of the vacancy, whichever is later.

4.2 Nomination of Candidates

The following process will be used by a Formulating Group to receive nominations for candidates:

- (1) Nomination letters and letters of support for Chair and Vice-Chair shall be sent to the head of TIA's Standards Program and copied to the current Formulating Group leadership.
- (2) Candidates are asked to submit a statement of interest, qualifications and objectives to the Standards Secretariat who will distribute it with the name of the nominees.
- (3) At least 30-days before the designated election meeting, the names of nominees for Chair and Vice Chair will be sent by the Standards Secretariat to the organizations in good standing listed on the quorum list of the Formulating Group.
- (4) Additional nominations from the floor shall be permitted. Each nomination from the floor shall be accompanied by a written letter of support from the employer of the candidate and a statement of interest, qualifications and objectives for their proposed administration.

4.3 Election of Candidates

Voting for the Chair and Vice Chair shall be by the organizations in good standing listed on the quorum list of the Formulating Group. Elections shall be conducted via secret ballot. Official ballots shall be provided to the Formulating Group by the Standards Secretariat.

The election will be conducted by the current Chair or duly appointed neutral party (preferably TIA staff) at a plenary meeting of the Formulating Group. Election for Chair shall be by a simple majority on the first ballot. If no candidate receives a simple majority, a run-off election will be held among the candidates receiving the two highest number of votes on the first ballot. This process is repeated until one candidate receives a simple majority vote. At the conclusion of the election of a Chair, the election of the Vice Chair will be conducted in the same manner prescribed for the election of the Chair. The appointed neutral party shall forward all ballots to the Standards Secretariat for archiving.

4.4 Announcement of Results

The result of the election of the Chair and Vice Chair shall be reported in the following manner:

- (1) The current Chair, or TIA staff person if present, shall announce the winner of both the Chair and Vice Chair positions after the ballots have been tallied by the appointed neutral party.
- (2) The Chair, or TIA staff person if present, shall not announce the ballot tally.
- (3) Any candidate shall be able to review the tally sheets by making their request known to the Standards Secretariat. This review will take place at the headquarters of the Secretariat. Request for review of said documents shall be made within 180 days after the election meeting.
- (4) The Secretariat shall keep both the tally sheets and the ballots for no less than 180 days after the election meeting where the election was held.

Newly elected officers will assume office at the close of the meeting at which they are elected.

5 Meetings

5.1 Meeting Location and Facilities

Formulating Group Chairs should consider convenience and travel costs for Members, costs to the TIA, and appropriateness of facilities when selecting meeting locations. The TIA has some conference rooms available for meetings and these can be used on a space-available basis. The TIA Staff can also provide assistance in locating and negotiating with commercial meeting facilities such as hotels and conference centers. When it is necessary to schedule a meeting at a location that will involve costs to the TIA, arrangements shall be made only by the TIA Staff, in recognition of the budget constraints for such activities.

Meetings also may be scheduled at company facilities provided by Formulating Group Members or underwritten by Members at commercial facilities, subject to the following guidelines:

- (1) Host companies are requested to avoid inappropriate or elaborate hospitality actions.
- (2) Attendees should not be subjected to sales or product presentations unless the Formulating Group requested such a presentation for reasons related to their deliberations. Any product presentation should not include pricing information or other commercial terms and should be done in a manner fair to all presenters.
- (3) Gifts or other promotional items of significant value should not be given to attendees.

- (4) The requirement for security clearances for attendees should be avoided.
- (5) Expenses to be paid by the TIA shall be pre-authorized by Standards and Technology staff assigned to the Formulating Group, and shall be within budget constraints for such activities. TIA staff shall coordinate closely with the Chair to determine what additional requirements are necessary for the meeting (e.g. audio visual equipment, computer services, LANs, and copying services).
- (6) Meetings may be held outside the United States if agreed to by the Members of the Formulating Group.
- (7) The Formulating Group shall maintain a set of general guidelines to provide to the prospective host(s). Specific requirements may change from meeting to meeting depending upon scope and venue, however, the host should be notified of the specific requirements at least four (4) weeks prior to the meeting in order to secure appropriate facilities.

5.2 Meeting Notices, Agendas and Reports

5.2.1 Meeting Notices, Notices of Cancellation

Chairs shall coordinate meeting arrangements with the TIA Standards and Technology Department and shall electronically forward the meeting notice to the TIA Standards Secretariat at least 24 days prior to the first day of the scheduled meeting. Agendas should accompany the meeting notice, but will be accepted until two weeks prior to the first day of the meeting. (See Section 5.2.2) Unless the Chair requests earlier transmittal, the TIA shall send out the meeting notices electronically at least 14 days before the meeting to the list(s) designated by the Chair, and post the information on TIA's web and File Transfer Protocol (FTP) sites.

Once meeting dates and locations are established, Chairs shall use preliminary announcements to allow participants ample time for travel arrangements. Chairs shall coordinate meeting arrangements with the TIA staff (if applicable) and forward to the Standards Secretariat an electronic copy of the meeting notice at least 24-days prior to the first day of the scheduled meeting. The draft agenda shall accompany the meeting notice. If meetings are less than four weeks apart, the committee shall send the meeting notice to the TIA Standards Secretariat at the conclusion of the previous meeting. When the Chair requests earlier transmittal, the TIA shall send the meeting notices to the list(s) designated by the Chair, and post the information on TIA's web and File Transfer Protocol (FTP) sites within 48 hours of receipt. It is suggested that the notification of the next meeting be placed at the end of the meeting agenda of the previous meeting.

Meetings that do not fulfill the notification requirements can still be held, however, the results of the meeting are advisory and shall be contributed to the next meeting that fulfills the notification requirements.

Meeting reports are to be filed within six weeks of the meeting close date. Once received by the TIA Standards Secretariat, the TIA General Counsel or an attorney

authorized by the TIA General Counsel is to approve the meeting report within five (5) business days. Upon approval, the TIA has five (5) business days to distribute the meeting report.

Meetings may be cancelled if it is anticipated, with cause, that there will be no quorum for conducting business at the meeting, no Chair or Vice Chair will be present to conduct the meeting, or an emergency or other act of nature precludes attendance at the meeting (e.g., hurricane). A notice of cancellation will be sent as soon as possible to provide the most time to the possible participants. A substitute meeting may be scheduled in order to continue the progress of a Formulating Group in the event a meeting is canceled. Notification requirements for substitute meetings shall be the same as for any other meetings of the Formulating Group.

5.2.2 Meeting Agenda

A detailed meeting agenda should be forwarded electronically to TIA Standards Secretariat concurrently with the meeting notice information. In all cases, the agenda shall be available at least two weeks prior to the first day of the meeting and contain the IMPORTANT NOTICE FOR PARTICIPATION as set forth in the Statements of Policy of this Manual. If more than one Formulating Group is meeting concurrently at the same place, the Chair of the senior group should submit the agenda for all such groups.

The agenda should list the items to be discussed, and shall clearly indicate any substantive items to be voted upon at the meeting. Examples of such items are:

- (1) approval of Standards proposals for industry ballot (including issuing ballots for the reaffirmation, revision or withdrawal of existing Standards);
- (2) adoption or revision of Formulating Group procedures;
- (3) changes in Formulating Group scope;
- (4) termination of the Formulating Group, or
- (5) election of the leadership of the Formulating Group.

A sample agenda is shown in ANNEX D.

If so requested by a Formulating Group member, the Chair, with concurrence of the Group, may defer action on substantive items that have not been the subject of prior notification on the published agenda. Action may be deferred to a subsequent meeting or a Letter Ballot may be issued.

Reference in the agenda to any document should be specific, using project or publication numbers, to avoid confusion and misunderstanding. Well-prepared agenda expedite the work of the Formulating Group.

5.2.3 Meeting Reports

Each Chair of a Formulating Group is encouraged to appoint a Secretary to record and prepare a meeting report for each meeting. In the absence of the Secretary, the Chair is responsible for preparation of the report.

Meeting reports are not "minutes" in the strict sense of the term, since a detailed record of all comments and discussions is not required. The report shall include:

- (1) the date and place of the meeting;
- (2) a list of persons in attendance (members and nonmembers);
- (3) a statement that a quorum was (or was not) present;
- (4) a statement of any identified patent holders, or none;
- (5) actions taken;
- (6) significant unresolved issues;
- (7) voting records (the use of "unanimous" when applicable or the notation by member name of negative and abstaining votes cast);
- (8) a document list (See Section 5.2.3.1);
- (9) future meeting schedules (if applicable);
- (10) action items assigned;
- (11) time of adjournment.

Meeting reports shall contain the following statement as the last paragraph before the signature(s):

"This meeting was conducted in accordance with the TIA Legal Guides and the Engineering Manual."

The Secretary shall prepare the meeting report in accordance with the format contained in ANNEX E. The draft meeting report shall be signed by the Secretary or the Chair and forwarded to the TIA Standards and Technology Department for review and distribution. *No distribution of the draft meeting report may be made in any form prior to review and approval by the TIA Standards and Technology Department and Legal Counsel for TIA.* (See Section 5.2.3.2.) After legal approval is received, the draft meeting report can be discussed, accepted or modified at a subsequent meeting, and any changes recorded in the report of that subsequent meeting. If the Legal Counsel-approved draft meeting report is modified substantially at the subsequent meeting, the entire report should be re-submitted for approval by Legal Counsel.

The Chair of the Formulating Group shall ensure corrections, additions, and reclassification from voting to non-voting and vice-versa are legibly marked on the forms provided by the TIA and are returned immediately following the meeting to the Standards and Technology Department for database maintenance.

The original attendance list may be sent separately when the meeting report is sent to the Standards Secretariat electronically. The attendance list may be attached to the meeting report and serve in lieu of the list of persons in attendance if all names are clearly legible when reproduced⁶. Short working documents not available at the meeting may be appended to the meeting report. When a large document falls into that category, its pertinent material should be abstracted.

Subcommittee and Working Group reports may optionally be included with the meeting report of the parent Committee or Subcommittee if the meeting took place in conjunction with a meeting of the parent Committee.

The TIA Standards and Technology Department normally circulates meeting reports to members of the Engineering Committee and posts these meeting reports on the Engineering Committee web page.

Availability of accurate meeting reports from previous meetings is essential to the orderly conduct of meetings. It is the responsibility of the Chair and the Secretary of the Formulating Group to submit meeting reports to the TIA in sufficient time to allow for their approval and distribution prior to the next regularly scheduled meeting. Once received by the TIA Standards Secretariat, the TIA General Counsel or an attorney authorized by the TIA General Counsel is to approve the meeting report within five (5) business days. Upon approval, the TIA has five (5) business days to distribute the meeting report. Meeting reports must be approved and distributed prior to the next meeting.

5.2.3.1 Document List

A document list identifying all documents distributed at or in preparation for the meeting shall be made a part of the meeting report, but items appearing on the document list should not be incorporated in or distributed with the meeting report. TIA meeting reports are intended as a permanent record of Formulating Group action, and not as a medium of information transmittal for those not attending meetings.

5.2.3.2 Legal Approvals

All meeting reports shall be submitted for legal review to ensure the actions were in compliance with antitrust and liability laws. Strict compliance with this requirement serves to protect the Committee Members and the Association from allegations of wrongdoing.

⁶ The permanent archives of the Standards and Technology Department may be retained on microfilm and other image-based media. This places a higher standard of legibility on original documents.

All meeting reports shall be approved by the TIA General Counsel, or an attorney authorized by TIA General Counsel before any distribution is made. After TIA Staff approval, the meeting report is distributed to the Committee and approved by the Committee as a part of the permanent legal record. Distribution may take place by posting to the TIA web site and sending notification to members.

5.3 Conduct of Meeting

5.3.1 General

All meetings whether face-to-face, conference call or web based, shall be conducted in accordance with the Legal Guides contained in ANNEX B. The Chair is responsible for maximizing the time spent at a meeting so that the time and expense of all present can be justified. This requires that the agenda be followed and that discussion be kept pertinent to the agenda. At the beginning of each meeting, Section 6.5.1, Encouragement of Early Disclosure, should be satisfied.

TIA periodically conducts training sessions (e.g., Leadership Workshops), which focus on topics such as the TIA Engineering Manual, ANSI processes or how to conduct a meeting. The Chairs of Formulating Groups, their Vice Chairs and Secretaries are strongly encouraged to attend.

5.3.2 Quorum

A quorum of a Formulating Group, consisting of a simple majority of the listed voting Member companies, is required to conduct business. Listed, in this case, means those Member companies represented on the Formulating Group voting Member list established by the Chair and maintained in the offices of TIA. If a Member company is not represented at a meeting, and if its absence constitutes a failure to meet the participation requirements for maintaining voting membership (See Section 3.2.5), it may be removed from the Voting Member list for the purpose of determining if a quorum is present. After quorum is established, any new Members who have vested voting rights should be so advised. (See Section 3.2.5)

Any participant who is not a member of the Formulating Group and who desires to join the group, should be advised to submit a membership application in accordance with Section 3.2.

After the first meeting of a new Formulating Group, the participants participating in the first meeting shall establish quorum.

It is the Chair's responsibility to ensure that decisions or actions are only taken in the presence of a quorum.

If a quorum is not present, no final action may be taken, but material may be distributed to the Formulating Group for action by Letter Ballot.

5.3.3 Voting Procedures

Voting may be conducted in meetings, including electronic meetings where all participants can hear and be heard, or may be accomplished by Letter Ballot.

5.3.3.1 Voting in Formulating Group Meetings

At a meeting where a quorum is present *at the time of the vote*, a simple majority of those voting (excluding abstentions) is sufficient to act in all matters except the final approval of a TIA Standard, or approving a Standards Proposal for public ballot, in which case a consensus within the Formulating Group is required. Each Formulating Group Member company or organization represented shall have one vote. If the Chair's company is represented by a Voting Representative other than the Chair, the Chair is without vote.

The Chair, with the concurrence of the group, may put a question out for a Letter Ballot, and not call for a vote at the meeting.

At a meeting, a Formulating Group may recommend publication of an American National Standard if consensus has been reached and **all** of the following are true:

- The Standards Proposal Ballot has been approved.
- The Formulating Group meeting agenda includes an item for publication approval or disposition of the Standards Proposal.
- The Standards Proposal Ballot results in no ballot comments or, if comments are received, all ballot comments are satisfactorily resolved with no substantive/technical changes. (See Section 6.8)

If technical changes are made to resolve ballot comments on the document, or are made for any other purpose, any voting member at the meeting may request a default Letter Ballot (See Section 6.11.2) on the matter.

At a meeting, a Formulating Group may recommend publication of an American National Standard if consensus has been reached and **all** the following are true:

- TIA has completed a Standards Proposal Ballot.
- The meeting agenda includes an item for approval of the Standards Proposal.
- The Standards Proposal ballot results in no ballot comments or if comments are received, all editorial ballot comments are satisfactorily resolved. (See Section 7.2.1)

If technical changes are made to resolve ballot comments on the Standards Proposal, or for any other purpose, a reballot is required according to Section 6.11, and a recommendation to publish cannot be made at the time of comment resolution.

5.3.3.2 Letter and Standards Proposal Ballots

To approve a standard via Letter Ballot (TIA Standard) or a Standards Proposal Ballot (American National Standard), two criteria must be met:

- $\geq 51\%$ of eligible voters must return a ballot (A returned ballot indicating abstention shall be counted as a returned ballot).
- $\geq 51\%$ of those casting ballots (excluding abstentions) are required to vote in the affirmative (approve or approve with comment - see Section 6.7 for information on ballot response options).

To approve a procedural matter posed as a question on a Letter Ballot, a simple majority of those casting ballots within the balloting period is required.

To approve all other matters posed as a question on a Letter Ballot (other than approval of a standard via Letter Ballot, approval of a Standards Proposal Ballot, or any procedural matter posed as a question on a Letter Ballot) a two-thirds majority of those casting ballots within the balloting period is required.

If the number of required affirmative votes on a Letter Ballot is not attained, the Chair shall attempt to determine the nature of the objections and changes necessary to resolve the concerns. The Chair, with concurrence of the Formulating Group, may decide to issue a second Letter Ballot (default or rebalot), or may decide the matter should be carried over as an agenda item for the next meeting.

The Chair or Secretary of the Formulating Group shall forward the exact wording of the issue(s) to be resolved by the Letter Ballot and any attached material to the TIA Standards and Technology Department. The Staff will prepare a Letter Ballot and electronically transmit it to the last known e-mail address of Formulating Group interested parties. All responses received within the specified voting period will be forwarded to the Chair, editor, or Secretary as specified.

The period for voting on Formulating Group Letter Ballots shall be at least 30 days from the date of issuance unless otherwise noted on the ballot with the approval of the cognizant Chair. At the Chair's discretion, the voting period may be longer than 30 days.

6 Development of Standards

6.1 Types of Projects

Engineering Committees may initiate projects to produce the following types of TIA documents:

- (1) Standards, both TIA Standards and American National Standards;
- (2) Adoption of international standard as ANS Standard;
- (3) Bulletins;

- (4) Engineering Publications;
- (5) Input documents to other Standards bodies;
- (6) Such other projects as may be authorized or requested by the Chair of the sponsoring Division or by the Chair of the Technical Committee;
- (7) Joint Standards.

6.1.1 Joint Standards Development

A joint standards group is a standards development body that consists of two or more internal or internal/external entities. Its purpose is to develop a standard that is of mutual interest to all the entities concerned. When a joint standards group is formed, TSSC shall be notified with the PINS form that will state the objectives and deliverables of this group.

Where the interests of the industry are served by having TIA Engineering Committees work jointly with other SDOs external entities to develop Joint Standards Documents (JSD), then the Engineering Committee Chair who desires to undertake a program of joint standards development should advise the head of TIA's Standards Program, of the nature of the technical work plan, and an agreement for technical coordination as well as an agreement covering copyrights, publication rights, and other commercial matters shall be negotiated and approved by the head of TIA's Standards Program.

6.1.2 Initiation of Joint Standards

Prior to the formation of such a joint standards group with an external entity, a signed agreement shall be reached between TIA and the other organization on the following items:

- a) procedures for future revisions of the standard;
- b) selection of Chair(s);
- c) voting procedure (acceptance criteria, resolution of comments, and disapprovals);
- d) patents procedure;
- e) distribution rights including copyright and use of organizational logos;
- f) meetings and related legal requirements (notices, agendas, motions, meeting minutes, cost, etc.);
- g) development costs;
- h) development timetable.

6.2 Standards

Both American National Standards and TIA Standards are issued to achieve one or more of the following purposes:

- (1) promoting interchangeability and interoperability of products falling within the scope of TIA Engineering Committees;
- (2) eliminating misunderstandings or confusion between manufacturers and buyers with respect to products on which TIA Standards or Specifications are adopted;
- (3) providing assistance to the purchaser in selecting and obtaining the proper product for a particular need;
- (4) improving the quality of products covered by TIA Standards or Specifications.

Technical standardization work of the TIA consists of discussion in an open forum by technical representatives from a wide spectrum of all interested groups, leading to a consensus on electrical, mechanical, optical, environmental, quality, reliability and other properties of telecommunications components, equipment and systems. It also includes the drafting, review, approval and issuance of Standards based upon that consensus, and the maintenance of Standards once issued. Where appropriate, and where the requirements of ANSI have been met, such material will be proposed as an ANS Standard. In cases where the standard is not intended to become an American National Standard, such material will be proposed as a TIA Standard. All Standards will be published in a uniform format as described in the *TIA Style Manual*.

6.3 Establishing a New Project

6.3.1 New TIA Standards

For all new projects for TIA Standards, a Formulating Group must initiate a project by submitting a completed New TIA Internal Project Request (ANNEX C) to TIA Standards Secretariat. A Project Number (PN) will be assigned by the TIA Standards Secretariat, and the Committee will be so informed. The project number will be used to identify the drafts through each stage of the development process.

The Staff assigns a four-digit identifying number with the prefix PN (Project Number) during the development process. Upon assignment of a PN, the TIA Standards Secretariat will, on the advice of the Formulating Group, circulate project information to persons or organizations believed to be affected by the finished Standard, affording them the opportunity to participate in the development process. Projects shall be assigned by the Engineering Committee to a Subcommittee, a Working Group of a Subcommittee, or itself for implementation.

Notice of the PN assignment shall also be placed in TIA's newsletter and posted to web pages used by TIA. A unique publication number for the final document may be reserved in the appropriate numbering series or a number may be reserved in the J-STD series for Joint Standards Documents intended to be TIA Standards.

6.3.2 *New American National Standards*

For all new projects for American National Standards, a Formulating Group must initiate a project by submitting the appropriate forms listed in ANNEX C to TIA Standards Secretariat. A PN will be assigned by the TIA Standards Secretariat, and the Committee will be so informed. The project number will be used to identify the drafts through each stage of the development process. For any project which is expected to result in the publication of a American National Standard, the Project Request must also be accompanied by *ANSI Project Initiation Notification System (PINS) Input Form*.

For ANSI/TIA standards, if written comments are received within 30 days from the publication date of a PINS announcement in ANSI Standards Action, and the comments assert that a proposed standard duplicates or conflicts with an existing ANS or a proposed ANS that has been previously announced in Standards Action, a deliberation of the representatives from the relevant organizations shall be held within 90 days from the Standards Action PINS comment deadline. The deliberation shall be completed before the draft standard is submitted for ANSI public review. Evidence of this deliberation, or any subsequent deliberations, shall be submitted to ANSI within 30 days after the conclusion of the deliberation. Any actions agreed upon from the deliberation(s) shall be carried out in a reasonably timely manner, but should normally not exceed 90 days following the conclusion of the deliberation. All deliberation reports shall be provided to ANSI with when the standard is submitted for final BSR approval.

For any project the Staff assigns a four-digit identifying number with the prefix PN (Project Number) during the development process.

Upon assignment of a project number, the TIA Standards Secretariat will, on the advice of the Formulating Group, circulate project information to persons or organizations believed to be affected by the finished Standard, affording them the opportunity to participate in the development process. A project shall be assigned by the Engineering Committee to a Subcommittee, a Working Group of a Subcommittee, or itself for implementation.

Notice of the Project Number assignment shall also be placed in TIA's newsletter and posted to web pages used by TIA. ANSI will also provide notice via *ANSI Standards Action* when an American National Standard is contemplated.

A unique publication number for the final document may be reserved in the appropriate numbering series or a number may be reserved in the J-STD series for Joint Standards Documents intended to be American National Standards.

6.3.3 *Existing Projects*

6.3.3.1 *TIA Standards*

For all existing projects for TIA Standards, a Formulating Group shall initiate a project by submitting a completed Existing TIA Internal Project Request (ANNEX C) to TIA

Standards Secretariat. A project number will be assigned by the TIA Standards Secretariat, and the Committee will be so informed. The project number will be used to identify the drafts through each stage of the development process.

The Staff will assign a three-alpha identifying suffix PN-3- XXXX-AAA (Project Number) during the development process. Upon assignment of a Project Number, the TIA Standards Secretariat will, on the advice of the Formulating Group, circulate project information to persons or organizations believed to be affected by the finished Standard, affording them the opportunity to participate in the development process.

Notice of the PN assignment shall also be placed in TIA's newsletter and posted to web pages used by TIA. A number for the final document may be reserved in the appropriate numbering series or a number may be reserved in the J-STD series for Joint Standards Documents intended to be TIA Standards.

6.3.3.2 *American National Standards*

For all existing projects for American National Standards, a Formulating Group must initiate a project by submitting a completed Existing TIA Internal Project Request (ANNEX C) to TIA Standards Secretariat. A Project Number (PN) will be assigned by the TIA Standards Secretariat, and the Committee will be so informed. The project number will be used to identify the drafts through each stage of the development process. For any project which is expected to result in the publication of a new ANS Standard (e.g. revision, addenda), the Project Request must also be accompanied by an ANSI Form PINS, *ANSI Project Initiation Notification System Input Form*.

For ANSI/TIA standards, if written comments are received within 30 days from the publication date of a PINS announcement in ANSI Standards Action, and the comments assert that a proposed standard duplicates or conflicts with an existing ANS or a proposed ANS that has been previously announced in Standards Action, a deliberation of the representatives from the relevant organizations shall be held within 90 days from the Standards Action PINS comment deadline. The deliberation shall be completed before the draft standard is submitted for ANSI public review. Evidence of this deliberation, or any subsequent deliberations, shall be submitted to ANSI within 30 days after the conclusion of the deliberation. Any actions agreed upon from the deliberation(s) shall be carried out in a reasonably timely manner, but should normally not exceed 90 days following the conclusion of the deliberation. All deliberation reports shall be provided to ANSI with when the standard is submitted for final BSR approval.

The Staff will assign a three-alphanumeric identifying suffix to the project number (PN-3-XXXX-AAX).

Upon assignment of a project number, the TIA Standards Secretariat will, on the advice of the Formulating Group, circulate project information to persons or organizations believed to be affected by the finished Standard, affording them the opportunity to participate in the development process.

Notice of the project number assignment shall also be placed in TIA's newsletter and posted to web pages used by TIA. ANSI will also provide notice via *ANSI Standards Action* when an American National Standard is contemplated.

A unique publication number for the final document may be reserved in the appropriate numbering series or a number may be reserved in the J-STD series for Joint Standards Documents intended to be American National Standards.

6.4 Copyrights and Submissions

Once a project is undertaken, a proposed standard begins to take form in the Formulating Group as the result of written submissions, and of open discussion in meetings. Ultimately, the finished document will be copyrighted and published by the TIA. Joint standards may be copyrighted by all pertinent Standards Development Organizations involved in development and as determined by agreement among them.

If Joint Standards Documents are being produced, the language may need slight modification to include all Standards Development Organizations who will hold copyright.

The applicable statements mentioned below grant TIA the right to copyright and sell TIA Publications, which contain the submission in whole or in part, and to allow publication of excerpts from the TIA Publications. The statements also extend these rights to TIA's existing policy of allowing and encouraging other regional, national or international standards bodies to adopt TIA Publications as their own. (These statements make it clear that a license to use the TIA's copyrighted material contained in a TIA Publication granted to another region, nation, or SDO does not automatically convey rights to Essential Patents or copyrights required for conformance with the TIA Publication.)

No Formulating Group may establish rules which would have the effect of excluding submissions based on a copyright policy which is more restrictive than that stated within this Section 6.4.

6.4.1 Submissions and Contributions

Any submission contributed to a TIA Formulating Group or any sub-element thereof, is subject to and submitted in accordance with the IMPORTANT NOTICE FOR PARTICIPATION contained in the Introduction of this Manual and the terms and provisions of Sections 6.4.1-6.4.6 inclusive. It is called to the participant's attention that every Contribution is a submission, however, not every submission is a Contribution under the definition in Section 6.4.2. There are several types of submissions that can be made to a TIA Formulating Group but not all submissions are intended for incorporation into a TIA Publication. Some submissions are purely for information while others are for reference or backup material. When a submission is intended to or may be incorporated into a TIA Publication and fits the definition contained in Section 6.4.2 then the submission is formally called a Contribution.

6.4.2 Definition of a Contribution

A Contribution is any expression in tangible form that is intended to or may be incorporated in whole or in part in any TIA Publication or the work product of any TIA Formulating Group or any sub-element thereof.

6.4.3 Exceptions

The following (“the excepted writings”) are not considered submissions and, without more, need not be accompanied by a submission cover sheet as mentioned hereinafter: meeting notices, meeting agendas, meeting minutes or reports, communications by committee officers in their capacity solely as such officers, and any writing authored by a third party (i.e. a person other than the submitter or an employee of the submitter’s employer). However, no submission shall be made of a writing authored by a third party unless the identity of such third party is disclosed by the submitter at the time of submission. Submitters of excepted writings waive and release any claim of the submitter and the submitter’s employer to copyright with respect to such writings.

6.4.4 Third Party Writings

Any writing authored by a third party and received by the Formulating Group should not be reproduced or distributed to the Formulating Group without appropriate permission or license. Any such writing authored by a third party shall not be incorporated in any TIA Publication without an appropriate grant of copyright license to TIA in substantially the language contemplated by this TIA Engineering Manual.

6.4.5 Submission Cover Sheet

Each submission to a Formulating Group or sub-element thereof, except as otherwise provided in 6.4.3, shall be accompanied by a submission cover sheet identifying the name of the Source, the name of the person(s) making the submission as an agent of the Source, the intended purpose of the document (for incorporation into TIA Publication, for information, or other) and the following statement:

“The document to which this cover statement is attached is submitted to a Formulating Group or sub-element thereof of the Telecommunications Industry Association (TIA) in accordance with the provisions of Sections 6.4.1-6.4.6 inclusive of the TIA Engineering Manual dated October 2009, all of which provisions are hereby incorporated by reference.”

Such a submission cover sheet might take the form attached hereto as ANNEX F. If a submission contains Software, then submission of ANNEX G and/or ANNEX I may be applicable for protection of certain Software copyrights.

A submission cover sheet may also contain one of the optional disclosure clauses set forth in Section 6.4.7 in the form attached hereto as ANNEX F.1.

6.4.6 General Provisions and License Grants

Without limiting the generality of the IMPORTANT NOTICE FOR PARTICIPATION contained in the Introduction of this Manual:

6.4.6.1 Modifications to Specified Statement

A submission shall contain the required language set forth in Section 6.4.5 and, optionally, the language set forth in section 6.4.7 of this Manual without any change whatsoever. If the submission contains any added text to the required language or the optional language, any such addition which is inconsistent with such Sections, is of no force or effect.

6.4.6.2 Grant of Copyright License

To the extent to which the Source(s) may legally and freely do so, the Source(s), upon submittal of a submission, grants a free, irrevocable, non-exclusive, worldwide license to the TIA, under the Source's copyright or copyright license rights in the submission, to, in whole or in part, copy, make derivative works, perform, display and distribute the submission and derivative works thereof consistent with TIA's policies and procedures, with the right to (i) sublicense the foregoing rights consistent with TIA's policies and procedures and (ii) copyright and sell in TIA's name any TIA Publication even though the TIA Publication may contain the submission or a derivative work thereof.

Notwithstanding the preceding, any Software which is the subject of an ANNEX G or J submitted by the Contributor may not be sublicensed by TIA to others for the purpose of making derivative works, or performance, of the submission. The submission shall disclose any known limitations on the Source's rights to license as herein provided.

When a submission is submitted by the Source(s) to assist the TIA Formulating Group, it is proposed to the Committee as a basis for discussion and is not to be construed as a binding proposal on the Source(s). The Source(s) specifically reserves the right to amend or modify the material contained in the submission. Nothing contained in the submission shall, except as herein expressly provided, be construed as conferring by implication, estoppel or otherwise, any license or right under (i) any existing or later issuing patent, whether or not the use of information in the document necessarily employs an invention of any existing or later issued patent, (ii) any copyright, (iii) any trademark, or (iv) any other intellectual property right.

6.4.6.3 Public Domain Exception

If the content of the submission is in the public domain and not subject to copyright protection, the grant of license contained in Section 6.4.6 2 above and the IMPORTANT NOTICE FOR PARTICIPATION in the Introduction of this Manual is not applicable, and TIA may therefore exercise all the rights of publication, distribution, sale and assignment, as allowed by law, without such grant of license.

6.4.7 Optional Disclosure on Submission Cover

TIA's IPR Policy, stated in the Introduction of this Manual, encourages but does not mandate the early disclosure of Essential Patent(s) and published pending patent application(s) in order to make the standards development process more efficient and avoid unnecessary delays. Patent searches are not required by the Policy.

The following two optional paragraphs, which are not in substitution for the submission of ANNEX H, when required, are intended to assist Source(s) who elect to insert them on the submission cover sheet in an effort to advance the process through early disclosure of any patent(s) and published pending patent application(s).

Optional Paragraph 1:

The submitter presenting this Contribution has reason to believe that there are patent(s) and/or published pending patent application(s) that may be essential to the practice of all or part of this Contribution as incorporated in a TIA Publication.

Optional Paragraph 2:

The Source may have patent(s) and/or published pending patent application(s) that may be essential to the practice of all or part of this Contribution as incorporated in a TIA Publication and the Source is willing to comply with Paragraphs 1, 2(a), or 2(b) of ANNEX H of this Manual as to such patent(s) and/or published pending patent application(s).

Such a submission cover sheet for optional disclosure might take the form attached hereto as ANNEX F.1.

6.4.8 Document Identification

Where a submission cover sheet is not required by this Manual, a Formulating Group chair may (but is not required) elect to identify any document(s) with a number or other symbol for purposes of clarification and orderly procedure.

6.5 Disclosure of Essential Patents

The Standards development and approval process is made more efficient if the existence of Essential Patent(s) and published pending patent application(s) are made known as early as possible in the development work. Early disclosure affords Formulating Group participants the greatest opportunity to evaluate the propriety and desirability of the text of the proposed standard in view of the disclosed patented technology. Conversely, the discovery at the final stages of standards development of an Essential Patent(s) or published pending patent application(s) that is not available for licensing under reasonable and non-discriminatory terms may result in the loss of years of Committee effort.

6.5.1 Encouragement of Voluntary Disclosure

A three-part approach will be used by TIA to encourage voluntary disclosure (preferably early) of Essential Patent(s) and published pending patent application(s).

The first part of the approach is that Formulating Group Chairs will ensure that participants and attendees are aware that:

TIA's Intellectual Property Rights Policy can be found in Statements of Policy and subsequent sections of the TIA Engineering Manual. Participants in the work of the TIA Formulating Group are urged to review the appropriate Sections. Individual participants are encouraged to notify TIA of any patent(s) or published pending patent application(s) of which they are aware that may be essential to the practice of a proposed TIA Publication, including requirements introduced through normative references, early on in its development to reduce the possibility for delays in the development process and increase the likelihood that the proposed TIA Publication will become a Standard. However, a Patent Holder who has provided TIA with the statement set forth in ANNEX H with respect to the applicable proposed TIA Publication need not (but may elect to) identify its specific patent(s) or published pending patent application(s) that may be essential to the practice of the proposed TIA Publication in question. Patent searches are not required to comply with the TIA Intellectual Property Rights Policy.

The second part of the approach is that the TIA will place a notification on each ballot for a proposed Standard that the TIA IPR Policy is applicable to the Reference Document, which encourages identification of Essential Patent(s) or published pending patent application(s) necessary for the practice for any or all of the Normative portions of the Reference Document and, if appropriate, the filing of a Patent Holder Statement.

The third part of the approach may be the placement of an optional, voluntary disclosure statement by the Source(s) on a submission cover sheet to a Formulating Group. Such a submission cover sheet might take the form attached hereto as ANNEX F.1 and use a statement in the form shown in Section 6.4.7.

No Formulating Group may establish rules which would have the effect of excluding submissions based on an early disclosure policy which is more restrictive than that stated within this Section 6.5.1.

6.5.2 Patents Discovered Subsequent to Publication of a Standard

By its terms, the TIA IPR Policy applies with equal force to situations involving Essential Patent(s) whenever discovered, whether before, during, or subsequent to the publication of a Standard. Once disclosure is made, the Patent Holder will be requested to provide the same Patent Holder Statement to TIA as is required in situations where Essential Patent(s) exist or are known prior to the approval of a proposed Standard.

Thus, if notice is given of an Essential Patent(s) that may be required for the practice of any or all of the Normative portions of a Standard, Patent Holders will be requested to provide the Patent Holder Statement set forth in Paragraphs 1, 2(a) or 2(b) of ANNEX H unless such Patent Holder Statement was previously given, or the Standard may be withdrawn by the TSSC.

6.6 Balloting of Standards

Standards shall be produced by consensus (See Definitions and Terms Section). Consensus is achieved through a process of discussion, correspondence, draft contributions, and revision, all leading to the final result. Balloting of text shall be by those registered to vote on the subject standard as follows. One individual from each participating company (or comparable body) is allowed to register to vote on a ballot as the designated Voting Representative (opt-in via “auto-register” or opt-in for selected ballots via “document-by-document”). Other representatives from each participating company may select ballot status “as information only” (opt-out) or as “none” (opt-out) for each ballot.

Auto-register: This option designates an individual of a participating company to be the Voting Representative for every ballot from a Formulating Group. This is a voting option, and the individual’s participating company is listed as an eligible voter for these ballots.

Document-by-document: This option, usually exercised when a participating company has multiple individuals participating in a formulating group, enables any one individual from the participating company to register as the Voting Representative for a (one) ballot. All of the Alternate and Supplemental Representatives are informed of the ballot, and they are allowed to designate the voter, if any, for each ballot. This enables a participating company to identify the most appropriate expert of the company’s contingency as the Voting Representative for a ballot. Thus, when any one representative is designated as the Voting Representative for the ballot, the individual’s participating company is listed as an eligible voter for the ballot. If no participating company individual is designated as the Voting Representative for the ballot, then the participating company is not eligible to vote on this ballot (in effect, this option is equivalent to not participating on the ballot as there is no Voting Representative for the company).

For information only: This option is usually selected by participating company individuals who are only interested in seeing the ballot documents, but have declined any option to vote on the ballot. The participating company is not eligible to vote if all individuals from that company are in “for information only” or “none” status, as there is no Voting Representative for the company.

None: This option is allowed for participating company individuals that do not want to be informed of any ballots. The participating company is not eligible to vote if all individuals from that company are in “none” or “for information only”

status, as there is no Voting Representative for the company. This is the only status for which individuals are not notified of the ballot.

6.6.1 *Balloting of TIA Standards*

When consensus is reached within the Formulating Group and has been formalized by a vote, the Chair shall forward the text of the proposed TIA Standard to the Standards and Technology Department for issuance as a Letter Ballot with a completed Ballot Authorization Form.

The TIA Standards Secretariat will issue a notification to all interested parties identified on the Ballot Authorization form by the lead Formulating Group, or from the Formulating Group Chair. This notification will include the instructions and password for the interested parties identified to review and vote on the ballot. Balloting of TIA standards will be no less than 30-days, and may be extended at the chair's discretion.

6.6.2 *Balloting of Standards Proposals*

When consensus is reached within the Formulating Group and has been formalized by a vote, the Chair shall forward the text of the Standards Proposal to the Standards and Technology Department for issuance as a Standards Proposal ballot with a completed Ballot Authorization Form.

For an American National Standard, the Standards Proposal must receive at least a 45-day public review period. This public review period is announced in ANSI's *Standards Action*. The Standards Proposal cannot be published prior to the close of the ANSI Public Review period.

The material submitted to the Standards and Technology Department shall be prepared in accordance with the *TIA Style Manual*. It shall be accompanied by a statement of the background and intended purpose of the Standard, and any other information that will improve industry's understanding of the proposal.

Simultaneously with issuance with the Standards Proposal, ANSI is notified (by use of its BSR-8 form) of the availability of the Standards Proposal for comment. ANSI publishes notice of the Standards Proposal in *ANSI Standards Action*, based on the ANSI established Publication Schedule, for a 45-day or 60-day public review period during which the public may request copies of the proposal. Balloting of an American National Standard is not complete until this public review period expires.

Outside interested parties will be afforded the opportunity to comment on the document through the ANSI Comment and Review Period. Comments received through the ANSI Public Period shall be treated the same as all other comments received (see 6.9).

Copies of the text of Standards Proposals shall also be available for purchase from the TIA's publisher during the public review comment period.

Only those companies who return ballots will receive a complimentary copy of the published document.

6.7 Ballot Response Options

Both TIA Standards and American National Standards have identical ballot response options. Parties responding to either type of ballot have three options, plus abstention.

6.7.1 TIA Standards

Parties responding to a Letter Ballot for approval of a TIA Standard or a TSB have the following ballot response options:

Approve without comment. Indicates agreement with the proposed text.

Approve with comment. Indicates general agreement, but suggests enhancements or changes to the proposed text that, if not acted on, would not cause the party to change their vote. Comments shall be acknowledged in writing by the Formulating Group Chair, and shall be considered during the comment resolution process (See Section 6.10). Comments not adopted may be deferred to the next revision of the TIA Standard.

Disapprove (Comments mandatory). Indicates disagreement with the proposed text for the technical reasons stated. Comments shall be specific as to the points or omissions being objected to, and shall state what changes or actions would resolve the objection. Comments shall be acknowledged in writing by the Formulating Group Chair and shall be considered during the comment resolution process (See Section 6.10).

Disapprove ballot responses received without comments shall be counted as incomplete. The ballot is recorded on the ballot summary as incomplete and no action is taken. Disapprove ballot responses received with nonspecific comments or which do not state what changes or actions would resolve the objection shall be counted as incomplete. If, after being contacted by the TIA Standards Secretariat, the originator fails to furnish their specific written objections or fails to state what changes or actions would resolve the objections, the ballot is recorded as incomplete on the ballot summary.

"Abstain" (with or without stated reasons for the abstention). A company may return a ballot indicating that it has chosen to abstain from voting. A returned ballot indicating abstention shall be counted as a response for the purpose of meeting Membership continuation criteria and shall be counted as a returned ballot, but will not be counted as part of the consensus determination of the matter being balloted. (See Section 5.3.3.2).

An unreturned ballot for a TIA Standard shall not be recorded on the final voting tally on TIA forms.

6.7.2 American National Standards

Parties responding to a Standards Proposal (SP) Ballot for approval of ANS have the following ballot response options:

Approve without comment. Indicates agreement with the proposed SP text.

Approve with comment. Indicates general agreement, but suggests enhancements or changes to the proposed SP text that, if not acted on, would not cause the party to change their vote. Comments shall be acknowledged in writing by the Formulating Group Chair, and shall be considered during the comment resolution process (See Section 6.10). Comments not adopted may be deferred to the next revision of the Standard.

Disapprove (Comments mandatory). Indicates disagreement with the proposed SP text for the technical reasons stated. Comments shall be specific as to the points or omissions being objected to, and shall state what changes or actions would resolve the objection. Comments shall be acknowledged in writing by the Formulating Group Chair and shall be considered during the comment resolution process (See Section 6.10).

Disapprove ballots received without comments shall be recorded on the ballot summary as disapprove. Disapprove ballots received with nonspecific comments or which do not state what changes or actions would resolve the objection shall be counted as disapprove and the originator shall be asked to provide specific objections. If the originator fails to furnish their specific written objections or fails to state what changes or actions would resolve the objections, the ballot is recorded as disapprove on the ballot summary.

"Abstain" (with or without stated reasons for the abstention). A company may return a ballot indicating that it has chosen to abstain from voting. A returned ballot indicating abstention shall be counted as a response for the purpose of meeting Membership continuation criteria and shall be counted as a returned ballot, but will not be counted as part of the consensus determination of the matter being balloted. (See Section 5.3.3.2).

An unreturned ballot for a Standards Proposal shall be recorded on the final voting tally as "not returned" on ANSI forms.

6.8 Types of Ballot Comments

6.8.1 Substantive Changes/Technical Changes

A substantive change in a Standard is one that directly and materially affects the use of the Standard. Examples of substantive changes:

- (1) "shall" to "should"; "should" to "shall";
- (2) addition, deletion or revision of requirements, regardless of the number of changes;
- (3) addition of mandatory compliance with referenced Standards

6.8.2 Editorial Changes

An editorial change in a Standard is one that corrects typographical errors, grammatical errors, or clarifies a concept without making a substantive change.

An Erratum may be issued after publication to correct a manifest mistake, omission in the original text or an error subsequently discovered.

Any other changes to a TIA Standard or ANS Standard may be made only by revision or addendum. (See Section 7.2.1)

6.8.3 Non-Technical or Non-Germane Comments

TIA Engineering Committees are expected to limit themselves to technical matters, and to leave commercial considerations to others.

Problems arise when ballots are cast on Standards Proposals, with comments attached that are not technical in nature or are not germane to the document being balloted.

The Technical Committee has the authority to create a standing committee to address non-technical Standards related matters, and that such a Committee be comprised of the Chair of the Technical Committee, the Chairs of the Sections and Divisions of the related Engineering Committees, TIA Staff, and TIA counsel, where appropriate.

The Technical Committee Chair will act as the Chair of the Standing Committee, which shall be known as "The Standing Committee on Non-Technical Standards-Related Matters."

It is intended that the Membership of the Standing Committee on Non-Technical Standards-Related Matters will vary depending on which Engineering Committee referred the comment. In each case, the Chairs of the TIA Division and Section sponsoring that Engineering Committee will serve, along with the Technical Committee Chair, Staff, and TIA General Counsel where appropriate.

The following process will be followed for resolution of non-technical or non-germane comments attached to ballots:

Approve with comment: The Committee Chair shall acknowledge the comment in writing, and where appropriate, advise the person making the comment that non-technical matters are outside the purview of the Committee. If the Chair deems it appropriate, or upon a majority vote of the Committee, the non-technical or non-germane comment(s) may be sent to the Standing Committee on Non-Technical Standards-Related Matters for consideration and recommendation (see Section 6.8.3). Alternatively, the non-technical/non-germane comment may be considered for a new proposal. Once created, the Standing Committee on Non-Technical Standards-Related Matters shall render its decision by majority vote and in writing within 30 days of the submittal, stating findings of fact and conclusions, with reasons therefore, based on a preponderance of the evidence.

Disapprove with comment: The Committee Chair shall acknowledge the comment in writing, and advise the person making the comment that such matters are outside the purview of the Committee. If the Chair deems it appropriate, or upon a majority vote of the Committee, the non-technical or non-germane comment(s) may be sent to the Standing Committee on Non-Technical Standards-Related Matters for consideration and recommendation (see Section 6.8.3). Alternatively, the non-technical/non-germane comment may be considered for a new proposal. The ballot should be counted as "negative with comments". The person casting the ballot should be advised that the non-technical or non-germane comments have been forwarded to the Standing Committee on Non-Technical Standards-Related matters for consideration and recommendation.

6.9 Processing Ballot Comments

6.9.1 TIA Standards

If no negative or affirmative with comment ballots have been received by the close of the balloting period, the TIA Standards Secretariat, after receiving the final text and supporting documentation from the Chair and/or Editor, will proceed to process the proposal.

If negative ballots have been received, the TIA Standards Secretariat advises the Chair of comments via email. The chair shall provide a means for the originator of the negative comment to indicate whether the response is satisfactory or not. The response letter will give the negative commenter 5-business days to complete the vote change form and submit it to the TIA Standards Secretariat. The Chair will contact the TIA Standards Secretariat at the end of the 5-day period to verify if the change form has been received. If the form has not been received, then the TIA Standards Secretariat will send a registered letter to the originator of the negative comment requesting the change form be sent to the TIA Standards Secretariat within 5-business days. If the TIA Standards Secretariat does not receive the change form the document will be forwarded for publication with the continuing objection.

6.9.2 American National Standards

If no negative or affirmative with comment ballots have been received by the close of the balloting period, and no comments have been received through the Public Review process, the TIA Standards Secretariat, after receiving the final text and supporting documentation from the Chair and/or Editor, will proceed to process the proposal.

If negative ballots have been received, the TIA Standards Secretariat advises the Chair of comments via email. Technical and editorial comments received through the public review process shall be acknowledged and the originator shall be advised, in writing, of the disposition of the comments and the reasons for that disposition. The chair shall provide a means for the originator of the negative comment to indicate whether the response is satisfactory or not. The response letter will give the negative commenter 5-business days to complete the form and submit it to the TIA Standards Secretariat. The

Chair will contact the TIA Standards Secretariat at the end of the 5-day period to verify if the change form has been received. If the form has not been received, then the TIA Standards Secretariat will send a registered letter to the originator of the negative comment requesting the change form be sent to the TIA Standards Secretariat within 5-business days. If the TIA Standards Secretariat does not receive the change form the document will be forwarded for publication with the continuing objection.

If comments from the Public Review process have been received then they will be addressed during the comment review process and the commenter will be notified in writing of the disposition of their comments.

6.10 Comment Resolution

Technical and editorial comments received with an "Approve" ballot response shall be acknowledged and the originator shall be advised, in writing, of the disposition of the comments. If the Formulating Group adopts the comments, resulting in technical changes, the proposed Standard shall be recirculated and relisted for public review (See Section 6.11 below).

Technical and editorial comments accompanying a "Disapprove" ballot response shall be acknowledged and the originator shall be advised, in writing, of the disposition of the comments and the reasons for that disposition. The Chair of the Formulating Group shall attempt to resolve the negative ballot response in one of the following ways:

- (1) by explaining to the originator the rationale followed by the Formulating Group in arriving at the proposed Standard. The Chair shall maintain a detailed written record of all correspondence and contacts on this matter;
- (2) by proposing changes to the proposed Standard which are editorial only and which do not result in changes in the technical requirements of the proposed Standard. Such revisions shall be supported by a consensus within the Formulating Group;

Note: If the originators of negative ballot responses agree to withdraw their objections without technical changes in the proposed Standard, they will be asked to do so in writing, and to return the response form to the TIA as proof that the negative ballot response has been withdrawn. This action will be reflected in the meeting summary. When all objections are withdrawn, processing will continue as in Section 6.12 below.

- (3) by proposing revisions to the technical requirements of the proposed Standard which would remove the objections of the originator. Such revisions shall be supported by a consensus within the Formulating Group. If the revisions result in changes in the technical requirements of the proposed Standard, the proposed Standard shall be recirculated and relisted for public review (See Section 6.11 below).

If the originator of a disapprove ballot response does not return the response form to TIA within 5 business days to indicate agreement or disagreement with the rationale

followed by the Formulating Group in arriving at the proposed Standard, then processing will continue, as in Section 6.12 below.

If one or more unresolved disapprove ballot responses remain in spite of reasonable efforts to resolve them, and if a consensus is believed to exist, a default ballot shall be issued as described in Section 6.11.2, below.

Copies of all acknowledgments and correspondence with originators of comments shall be furnished to the TIA Standards Secretariat. This file is necessary when the TIA submits the Standard Proposal for TSSC and ANSI approval.

6.11 Recirculation of Ballots

Text for a ballot shall be recirculated if revisions have been made which change the technical requirements or increase the range of products to which the Standard applies. There are two types of recirculation ballots: Complete Re-ballot and Default Ballot.

6.11.1 Complete Re-ballot of TIA Standard

If, as the result of substantive/technical changes a major rewriting of large sections are made to a proposed TIA Standard, and the revisions are so broad as to merit a complete re-balloting, then a new ballot is prepared and issued as in Section 6.6.1. The identifying number of the new ballot will be that of the original with a suffix letter added (e.g., PN-3-1111-A).

When a document is balloted to become a TIA document (i.e., TSB or TIA), the re-ballot will be sent to ballot recipients that received the original ballot.

6.11.2 Default Ballot of TIA Standard

A default ballot, which is a form of a 30-day Letter Ballot, may be issued whenever;

- (1) limited technical changes are made to a proposed Standard in order to resolve a negative ballot, or;
- (2) when all reasonable efforts have been exhausted without success to resolve a continuing objection, and yet a clear consensus is believed to exist.

A default ballot for a TIA Standard allows those parties to reaffirm or change their response, based upon the changes made. New objections may not be raised on sections of the document that has not been the subject of the default ballot. Failure to return a default ballot leaves the recorded vote on the document “as originally cast.”

6.11.3 Complete Re-ballot on an American National Standard

If, as the result of substantive/technical changes a major rewriting of large sections are made to a Standards Proposal, and the revisions are so broad as to merit a complete re-balloting, then a new ballot is prepared and issued as in Section 6.6.2. The

identifying number of the new Standards Proposal will be that of the original with a suffix letter added.

6.11.4 Default Ballot on an American National Standard

A default ballot is a form of a re-ballot that may be issued for a 30-day, 45-day or 60-day period whenever;

- (1) limited technical changes are made to the Standards Proposal or;
- (2) when all reasonable efforts have been exhausted without success to resolve a negative vote, and yet a consensus exists to publish the Standards Proposal without change.

A default ballot is sent to those parties who received the original ballot and allows those parties, regardless of their current voting status in the Formulating Group, to respond, reaffirm, or change their response based on the changes made, or the statement of objections accompanying the unresolved negative ballots, if any. New objections may not be raised to unchanged material that has not been the subject of a negative ballot.

If the amount of changed material in a default ballot can be reproduced in ANSI *Standards Action*, then a 30-day public review notice can be requested by TIA Standards Secretariat to ANSI for publication in ANSI Standards Action. If the amount of changed material cannot be reproduced in ANSI Standards Action, then a public review notice will be given by TIA Standards Secretariat to ANSI for publication in ANSI Standards Action.

6.11.5 Necessary Documentation for Default Ballots

The following information will be included with all default ballots for TIA Standards or American National Standards:

- (1) a summary page of the changes made to the document;
- (2) either the document in its entirety with changes clearly marked, or only the changed pages with the changes clearly marked;
- (3) a copy of all unresolved objections with attempts at resolution from prior ballots, including initial ballots.

When the results of the default ballot show a consensus in favor of adoption of the proposed Standard, the TIA will proceed toward approval of the Standard as described in Section 6.12, below. If unresolved negative ballots still remain at this time, full documentation of the objections and of the efforts to resolve them shall be provided to the head of TIA's Standards Program for review and consideration by the TSSC. The TSSC shall take action, as it deems appropriate.

6.11.6 Negative Ballots and Negative Comments, Right to Appeal Notification

If after reballoting under Section 6.11, any Negative Ballots or Public Review comments remain unresolved, then all parties with Unresolved Negative Ballots or Negative Comments, shall be advised in writing, including electronic means, of the efforts of the Formulating Group to resolve the Negative Comments and those parties shall be advised in writing, including electronic means, of their right to file a Complaint or Appeal under A.5 of ANNEX A of this Manual.

6.12 Standards Approval

6.12.1 TIA Standards Approval

When the TIA Standards Secretariat has verified the proposed text has been prepared in full compliance with the rules, policies and legal guides of the TIA, the Secretariat shall approve the proposed text as a TIA Standard. The final document and comment resolution record are reviewed by the full TSSC only if there are continuing objections; otherwise, the TSSC has delegated the review to the TIA Standards Secretariat.

6.12.2 American National Standards Approval

When the TIA Standards Secretariat has verified the Standards Proposal has been prepared in full compliance with the rules, policies and legal guides of the TIA, the relevant documentation shall be submitted to ANSI. The TIA Standards Secretariat shall submit the ANSI BSR-9 form and relevant documentation to ANSI to obtain approval from the Board of Standards Review (BSR) to designate the document as an American National Standard.

6.12.3 Declaration as an American National Standard

After receipt of ANSI BSR's Notification of Approval, the material therein is declared to be an American National Standard⁷. Notification is issued to the industry by the Standards and Technology Department through the use of press releases and other media means.

6.12.4 Publication of American National Standards

A proposed new American National Standard, proposed revision or reaffirmation of an American National Standard to be approved by the Board of Standards Review (BSR) shall be submitted to the Secretary of the BSR by the TIA Standards Secretariat within 1 year from the close of the comment period listed in *Standards Action* using the appropriate form provided by ANSI, unless the standards developer notifies the Secretary of the BSR in writing of good cause for a different schedule for submittal. If that form cannot be submitted to the Secretary of the BSR within one year from the

⁷Prior to 1988, TIA Standards have an "EIA" or "RS" (Recommended Standard) prefix. From 1988 to 1992, such documents had an "EIA/TIA" prefix. In 1992, the prefix was changed to "TIA/EIA". Beginning in 2001, the prefix was shortened to just "TIA". If the document was approved by ANSI as an American National Standard, then "ANSI" is added in front of the TIA designation (i.e., ANSI/TIA-xxx).

close of the comment period listed in *Standards Action*, then the Formulating Group may petition the BSR for up to an additional year to submit that form. Failure to make the submittal within two years from the close of the comment period listed in *Standards Action* shall require consideration by the BSR, i.e., withdrawn, extension for cause, or another listing in *Standards Action* (See ANSI Essential Requirements, Clause 4.2, Approval of actions in connection with American National Standards).

7 Maintenance of Standards

7.1 Revision, Reaffirmation or Withdrawal of Standards

The Formulating Group, or its parent Formulating Group if the former no longer exists, is responsible for the maintenance of TIA standards, specifications, and bulletins as well as American National Standards. Maintenance of a standard takes the form of a periodic review wherein the Formulating Group shall determine whether the document in question should be reaffirmed, revised, or withdrawn.

Unless otherwise noted, all American National Standards shall be reviewed every five years. The Formulating Group shall initiate action to

- (1) **revise** the Standard to incorporate additional language or delete language that will change its technical content or meaning;
- (2) **reaffirm** that a review of the Standard resulted in a decision that the technical content is valid and does not need change; or
- (3) **withdraw** the Standard following determination that the technical content is no longer of value.

Note: *Revisions require that a Standards Proposal be developed and processed in the same manner as that of a new proposed American National Standard. Reaffirmation shall use an extension of RF with a numeric extension depicting the number of reaffirmation. Withdrawals shall use an extension of WD. See ANNEX J.*

TIA Standards, at the discretion of the Formulating Group, the Formulating Group may choose either a Letter Ballot or vote during an official formulating group meeting to reaffirm or withdraw a standard. Revisions require the same process as that for the development of a new TIA Standard.

7.2 Procedures to Initiate Five Year Review

The TIA Standards Secretariat automatically shall issue to the Formulating Group Chair and the responsible Standards and Technology staff member a notice requesting the document to be reviewed. The review notice process shall commence 24 months prior to the end of the fifth year. Where appropriate, the Standards and Technology

Department Staff shall provide the Chair with a summary of all comments not incorporated into the Standard during its prior development period five years earlier.

If the review process (reaffirmation, revision, or withdrawal) cannot be completed within the five-year period, it is the obligation of the Chair to request an extension for the review. This is done by sending correspondence to the TIA Standards Secretariat requesting an extension. The TIA Standards Secretariat shall complete an ANSI BSR11 (Request for Extension of Time) and submit it to ANSI for approval. The request from the committee shall include a specific date by which the review will be completed and submitted to ANSI for approval. The committee can request an extension for up to five years (for a total of 10 years review). If the document has not completed the ANSI BSR Review by the end of the 10th year, then ANSI will cancel the project and notify the TIA Standards Secretariat. The committee will then have to start the ANSI approval process from the beginning. The BSR11 must be completed in order to extend the review period. If a PINS and/or BSR8 form has been submitted to ANSI within the five-year period submission of the BSR11 is not necessary.

The review process will be five years for all documents and standards. TSBs and TIA Standards can be reaffirmed or withdrawn at a committee meeting. The disposition for reaffirmation or withdrawal shall be reported in the official committee meeting report, and the appropriate form filled out online and sent to the TIA Standards Secretariat. At the committee's request a Letter Ballot may be issued to reaffirm or withdraw these documents. Revisions and withdrawals shall follow the current procedures for revisions and withdrawals of standards and documents.

7.2.1 Procedures for Revision for American National Standards

The process of revising a Standard is similar to the development of a new Standard in that consensus shall be reached by industry ballot on changes to the technical content or meaning of the Standard. Usually the revision takes the form of a complete revision and reissuance of the Standard.

Revision of or addition to the technical content of an existing TIA Standard or American National Standard, even in the form of an addendum, requires that the procedures for the development of a new Standard be followed. (See Sections 6.3 through 6.12)

Note: *When additional technical requirements need to be added to an existing Standard without changing the previously published requirements, or when only one or two portions of a large existing Standard need to be revised, a Formulating Group may propose an **addendum** instead of a complete revision. When the Standard is next revised, the addendum is incorporated in the revision.*

When a revision of an American National Standard is approved, it will be reprinted with the same TIA number, but with a suffix revision letter. The date carried on the front cover of the revised Standard will be the date of the revision. When issued, an addendum will carry the same number as the Standard, followed by a dash and a numerical suffix. See ANNEX J.

7.2.1.1 Substantive Change

A substantive change in a Standard is one that directly and materially affects the use of the Standard. Examples of substantive changes:

- (1) “shall” to “should”; “should” to “shall”;
- (2) addition, deletion or revision of requirements, regardless of the number of changes;
- (3) addition of mandatory compliance with referenced Standards

7.2.1.2 Editorial Change

Once approved as an American National Standard, no changes shall be made in a Standards document without going through the full consensus, comment and balloting process prescribed for a Standards Proposal. A TIA Standard also shall go through the consensus process for changes, but it need not be submitted for a public review process at ANSI. The only exception to this rule allowed by ANSI is the issuance of an erratum to correct a manifest mistake or omission in the original text or an error subsequently discovered, and that only where the error should have been obvious to the user of the Standard.

Any other changes to a TIA Standard or ANS Standard may be made only by revision or addendum. (See Section 7.2.1)

7.2.2 Procedures for Reaffirmation of American National Standards

A Formulating Group shall recommend reaffirmation of a Standard if it finds the technical content valid and does not require change.

Reaffirmation shall be accomplished without any substantive change to the main text of the Standard.

Reaffirmation requires a formal industry balloting process. Copies of the Standard will not normally be distributed with the industry ballots, but scanned electronic copies may be requested through the Standards Secretariat.

7.2.3 Procedures for Withdrawal of American National Standards

A Formulating Group shall recommend withdrawal of a Standard if it determines that the Standard is no longer required to meet the purpose for which it was written. (See Section 6.2)

Withdrawal requires a formal industry balloting process. Copies of the Standard will not be distributed with the industry ballots, but scanned electronic copies may be requested through the Standards Secretariat.

8 TIA Standards, Specifications and Bulletins

8.1 TIA Standards and Specifications

A Formulating Group may prepare a TIA Standard or TIA Specification that is not an American National Standard (ANS) on any subject matter within its Scope when the Formulating Group determines such a document will satisfy the requirement for standardization. If not prepared by a Formulating Group, it must be submitted via a parent body that is a Formulating Group. Project initiation and development is the same as for an American National Standard, except to demonstrate the consensus of the Formulating Group (See Section 6.7.1) for balloting options. No public review or Standards Proposal to ANSI is required to approve a TIA Standard. The final document and comment resolution record are reviewed by the full TSSC only if there are continuing objections, otherwise, the TSSC has delegated the review to the TIA Standards Secretariat.

8.2 Bulletins

TIA Bulletins may be proposed by Formulating Groups to publicize material that, although not a published Standard, may have significant value to industry or users. Approval of a proposed Bulletin requires a two-thirds affirmative vote on a 30-day Letter Ballot (See Section 6.7 for balloting options). Negative ballots shall be accompanied by comments, and all comments must be considered by the Formulating Group.

On occasion, a Bulletin may be used to bring important information to the attention of industry and the public prior to the publication of a Standard on the same subject, but a Bulletin is not a Standard, and must bear a statement to that effect.

A Bulletin shall not modify or amend an existing Standard.

Reaffirmation or withdrawal of a Bulletin may be accomplished by a recorded vote in the Meeting Report demonstrating a consensus for the reaffirmation. The fact that a reaffirmation or withdrawal vote will be taken shall have been listed on the published agenda for the meeting. Alternatively, a Letter Ballot may also be used for reaffirmation or withdrawal of a Bulletin. After a reaffirmation or withdrawal vote, a letter or email must be sent by the Chair to the TIA Standards Secretariat reporting the reaffirmation or withdrawal. See Annex C.

9 Published Documents

9.1 General

Documents published by the Standards and Technology Department fall into broad categories of TIA Standards and other documents listed below.

9.2 TIA Standards and Technology Department Documents

- ◆ Standards and Specifications (ANS)

- ◆ Standards and Specifications (non-ANS)
- ◆ Bulletins (non-ANS)
- ◆ Standards Proposals
- ◆ Engineering Publications
- ◆ Workshop Proceedings
- ◆ Index of Standards and Engineering Publications
- ◆ Roster of Engineering Committees
- ◆ Formal Interpretations of TIA Standards and Specifications
- ◆ Committee Scope Manual
- ◆ Style Manual
- ◆ Engineering Manual

This list may be modified from time to time.

Some documents are not for distribution beyond the Formulating Groups such as:

- ◆ Legal Requests
- ◆ Working documents and meeting contributions

9.3 Subscriptions and Sale of Documents

The Standards and Technology Department makes finished documents and ballots available. TIA Standards and Specifications, American National Standards, Bulletins, Standards Proposals, and Letter Ballots are available for sale from TIA's publisher (global.ihs.com) and other parties. A listing of all Project Numbers, Standards Proposals, and Published Documents is maintained on the TIA and IHS web sites. TIA's publisher also makes documents available in CD-ROM, and on-line delivery format for a subscription fee. Site licenses can be arranged.

A limited number of existing TIA Publications are provided to Formulating Groups as needed for Committee work. Requests should be made directly to the TIA Standards Secretariat.

Committee rosters and mailing lists are made available for use of Committee Chairs and Members in the course of TIA business but remain the property of the TIA. Standards and Technology Department policy does not permit distribution to or use of its lists by other outside parties.

10 Interpretation of TIA Published Documents

The TIA Staff and Formulating Group Members may from time to time be called upon by users or would-be users of TIA Standards and Specifications, and American National Standards and other documents⁸ to provide guidance in the application or understanding of these documents. While the TIA encourages a helpful attitude toward users of such TIA Publications, Staff and Formulating Group Members are cautioned that since use of the Standards is voluntary, their interpretation should be left to the user, except as provided below.

Caution: *An interpretation shall not be used as a means to change the requirements of a TIA published document (either ANS or non-ANS).*

10.1 Request for Formal Interpretation

When a Member of the public, having a direct and material interest in a TIA Publication, wishes a formal interpretation of any provisions of the TIA Publication, he or she may request the Standards and Technology Department in writing for such an interpretation. The request shall include as a minimum the following information:

- (1) the name, address, email and telephone number of the person requesting the interpretation;
- (2) a statement demonstrating the requestor's direct and material interest in the document
- (3) the number, issue, and issue date of the document in question;
- (4) a statement of the question(s)

10.2 Processing an Interpretation Request

Upon receipt of a written request, the Standards and Technology Department shall review the request for proper form, contacting the requester if necessary. The Department will then forward the request to the appropriate Formulating Group Chair. If the Formulating Group is a Subcommittee no longer in existence, then the request shall be forwarded to the Parent Committee. If the Formulating Group is an Engineering Committee that is no longer in existence, then the Standards and Technology Department will consult with the TSSC and appropriately route the request to the subject matter experts within TIA's existing structure of Engineering Committees.

The Formulating Group Chair shall acknowledge receipt of the request in writing to the requester and provide an estimate of the time required for response to the request. The Chair shall place the request on the agenda of the next regularly scheduled meeting of

⁸Experience has shown that it is useful in such cases to determine whether the inquiring party has in their possession a current copy of the Standard in question.

the Formulating Group and distribute copies of the request to Members of the Formulating Group. The Chair may add their comments if desired.

The Formulating Group shall attempt to form a consensus on a reply to the requester. The reply may include clarifying explanations or other comments of the Formulating Group. If a consensus is formed, the Chair shall forward the agreed-upon reply to the Standards and Technology Department for formal transmittal to the requester. The request and the reply will be retained with the records of the Standard in the Department files, and copies will be furnished to the Formulating Group for consideration when the Standard is next considered for revision or reaffirmation.

Failure to form a consensus on a request for interpretation is an indication of serious trouble with the subject Standard, and the Standard should be scheduled for prompt study and revision.

Formal interpretations will not be provided on Standards Proposals or Committee Letter Ballots.

11 Correspondence and Records

11.1 Standards Secretariat Record Retention

TIA has developed a document retention policy to maintain and control important TIA records, eliminate unnecessary or duplicative documents, and save space. The determinative factors in deciding whether to discard documents should be the practical value of the document and any legal reason for keeping it.

For each document, the following criteria are used:

- (1) There is some practical reason for keeping it.
 - (a) Will it be referred to as it is part of an on-going project, or
 - (b) Does it have historical value and will someone know how to access it?
- (2) There is a valid legal reason for keeping it.
 - (a) It affects the obligations of TIA
 - (b) It is the official record of committee action
 - (c) It may be discoverable in pending litigation.
- (3) The document falls within a category for which TIA has set retention periods:
 - (a) Complaints – See correspondence, general.

- (b) Correspondence, agreements – At signing of agreement, discard all correspondence except that having special significance regarding interpretation of agreement.
- (c) Correspondence, general – Maintain correspondence relevant to the development of standard.
- (d) TIA Printed Publications – maintain at least one copy of TIA publications in the TIA Library. All required documents (ballots, ballot summaries, response letters, and blue cards) are retained for five years after the withdrawal of the document.
- (e) Mailing Lists – as a rule, mailing lists should be destroyed when modified. However, when mailing lists are part of standards development balloting process, refer to standards-setting documents.
- (f) Meeting Reports – Discard committee meeting reports after ten (10) year period.
- (g) Other Records – Contact the TIA General Counsel or an attorney authorized by TIA General Counsel.
- (h) Standards Setting Background – maintain all required documents for the issuance of a standard shall be retained for five years after the withdrawal of the document.

11.2 Formulating Group Handling of Correspondence

The Chair of each Formulating Group shall ensure prompt and proper handling of correspondence concerning the activities of their group. This is vital to the satisfactory operation of TIA Formulating Groups.

The Formulating Group Chair shall send copies of all correspondence to the staff responsible in the TIA Standards and Technology Department.

A Formulating Group Chair shall send copies of all correspondence to the next higher Chair in the Committee and to the staff person responsible in the TIA Standards and Technology Department.

When the Chair is responding to correspondence on which others have been copied, the Chair shall in addition send copies of the response to all recipients of the original correspondence.

Formulating Group correspondence shall be in the form of an email or via letter on TIA Committee Correspondence letterhead and shall be signed by the Chair or Secretary with their title in the TIA Formulating Group.

Upon receiving a comment on a TIA Standards Proposal originated by their Formulating Group, the Chair or their designee shall acknowledge the comment to its originator

regardless of its nature. This notification may be in the form of an email or via letter on official TIA correspondence letterhead.

The Chair shall maintain a complete file of meeting reports, correspondence, and other records. These files shall be turned over by the Chair to their successor upon leaving office. If the Formulating Group is dissolved, records should be turned over to the next higher Chair in case of a Subcommittee or Working Group, or to the Standards and Technology Department in the case of an Engineering Committee.

Chairs, in corresponding with government bodies or agencies, shall comply with the requirements of Section 12.3 of this Manual.

To provide an audit trail, the Standards and Technology Department will maintain its files for a period of at least 5 years for meeting announcements, published agenda, and 10 years for meeting reports.

12 Relations with Other Organizations

It is TIA policy to work cooperatively with other organizations in the development of standards and other technical documents needed by the industry. (See Statements of Policy Section) Appropriate formal liaisons shall be established, preferably at the direction of the Chair, whenever work of the Formulating Group may concern another organization, within or outside of TIA. Those organizations seeking liaison with a TIA formulating group must do so in writing, letter or email, to the formulating group Chair, with a copy to the head of TIA's Standards Program.

12.1 Avoidance of Duplication of Effort

Standardizing activities by TIA Formulating Groups should primarily be directed toward the preparation of documents pertaining to telecommunications products within their Scopes. Adequate liaison should be maintained with professional societies and other Standards bodies in order to avoid unnecessary duplication of effort and to permit complementary activities. When appropriate, Joint Standard Documents may be developed as specified in Section 6.1.1.

12.2 References

TIA Formulating Groups are encouraged to make reference to any pertinent Standards of other Standards bodies. As specified in the *TIA Style Manual*, such references should indicate whether they are "normative" or "informative" references. The Patent Policy of the other Standards body shall be consistent with the TIA and ANSI Policies in order to be considered as normative references in a Standard developed by TIA.

12.2.1 Referencing Draft Documents

TIA Standards may reference draft documents on the condition that the following criteria are met:

- (1) The draft document cited in the references section must be accompanied by the following note:

Editor's Note: The above document is a work in progress and should not be referenced unless and until it is approved and published. Until such time as this Editor's Note is removed, the inclusion of the above document is for informational purposes only.

- (2) When submitted to the TIA Committee Administrator either for ballot or for publication, the submitter will inform the TIA staff person that the document submitted contains a reference to a draft document and that the reference complies with this section of the TIA Engineering Manual.
- (3) When the draft being referenced is approved and published, the TIA document will require a modification to update the reference, remove the reference, or otherwise revise the document per the consensus decision of the Formulating Group. If the referenced document, once published, is to be referenced normatively, then this constitutes a technical change and the TIA document will need to be balloted accordingly.

12.3 Public Pronouncements

Generally, Formulating Group Members are not permitted to speak in the name of the Telecommunications Industry Association or to transmit outside the Telecommunications Industry Association any document which appears to present a public position on behalf of the Association or any of its parts. These functions are specifically reserved for the TIA Board of Directors. However, a Chair may request prior clearance from the Standards and Technology Department to make a statement on technical matters for publication or oral presentation on behalf of the Formulating Group or the TIA. Both the nature of the event or publication and the text of the statement shall be cleared through the Standards and Technology Department and the TIA General Counsel or an attorney authorized by TIA General Counsel prior to publication or presentation.

For liaison purposes, Formulating Groups may exchange working technical documents with other comparable technical organizations so long as it is made clear that the document is a working paper and does not represent the policy of the Telecommunications Industry Association, its product-oriented Divisions, or its standing committees. The use of "Committee Correspondence" letterhead is required for such exchanges and may be transmitted electronically. When in doubt, Chairs should consult the head of TIA's Standards Program or the TIA General Counsel or an attorney authorized by TIA General Counsel. Persons engaging in such correspondence shall comply with the TIA Legal Guides.

If a Formulating Group desires to conduct a survey to determine industry interest in a particular subject, the proposed questionnaire shall be submitted to the Standards and Technology Department for review and approval.

12.4 International Commonality

During the development of a TIA Standards Proposal, the TIA Formulating Group should review and compare the proposed technical content with any similar International Electrotechnical Commission (IEC), International Organization for Standardization (ISO) Standards, or with the International Telecommunication Union ITU-T and ITU-R Recommendations. Where similar international standards exist, a determination shall be made regarding the extent to which the TIA Standards Proposal can be based upon an existing international standard. Where similar international standards do not exist, it shall be recognized during the development of the TIA Standards Proposal that the resulting standard may represent a basis for an U.S. position in the development of an international standard.

The TIA maintains contact with the U.S. Secretariats for many international Technical Advisory Groups (TAGs) and with the U.S. National Committee for IEC, and the ANSI International Committee. In addition, TIA staff participates in preparatory work for the ITU as well as direct participation in many Study Groups at ITU-T and ITU-R. The Standards and Technology Department Staff can provide information on how a draft TIA Standards Proposal may be reviewed by these groups.

13 Complaints and Appeals

13.1 Informal Complaints

At any point in the standards development process that a Member of a Formulating Group believes the Engineering Manual process is not being followed, the person with the complaint should feel free to bring the matter to the attention of the Department staff. If after investigating the matter, the objection is sustained, staff will take remedial action to correct the problem. If the complaint involves actions the staff took or failed to take, then such an informal complaint can be directed to the TIA Technical Committee Chair or the TIA President for investigation and possible remedial action. If the matter requires a clarification or interpretation of the Engineering Manual, an Advisory Note will be issued by the staff after approval by the Technical Committee.

13.2 Formal Appeals

Persons who have directly and materially affected interests and who feel that they have been or will be adversely affected by a TIA Publication within the TIA's jurisdiction, or by the lack of such a TIA Publication, have the right to formally appeal substantive or procedural actions or inactions of the TIA Standards and Technology Department and its Formulating Groups. The appeals procedure is described in detail in Section A5 of ANNEX A to this Manual.

14 Changes to TIA Engineering Manual

From time to time the TIA Engineering Manual requires modification as a result of changes made by ANSI in its procedures, or as a result of problems experienced by TIA with a particular Section of the Manual. Some areas of change may also be highlighted

as part of normal review of processes and procedures to make the standards process more efficient and effective or as a result of issues discovered during a routine ANSI audit.

Such proposed modifications should be brought to the attention of the head of TIA's Standards Program or the TIA Technical Committee Chair. The revised language shall be drafted by such person or ad hoc group as designated by the TIA Technical Committee Chair. This proposed text for updating the Manual or an Advisory Note shall then be circulated among members of the TSSC for comments and suggestions and balloted within the Technical Committee to achieve approval of the revised text. Upon such approval, the updated Manual or the Advisory Note shall be effective within TIA and sent to ANSI for its review. Depending on the nature of the change, ANSI may call for a public review period in its *Standards Action* on the revision or make such other requests as it deems appropriate.

ANNEX A - Technical Standards Subcommittee (TSSC)

A1. Scope of the Technical Committee and The TSSC

The Technical Committee of the TIA is charged by the Board of Directors with overseeing the Association's engineering activities and the Standards and Technology Department.

A specialized Subcommittee of the Technical Committee, known as the **Technical Standards Subcommittee (TSSC)**, oversees the manner in which the various Engineering Committees carry out their Standards and Specifications programs and acts as a final procedural review body in the development of a TIA Standard or Specification.

The roles of the TSSC and the product Divisions differ in that the Divisions have the responsibility to provide guidance and direction, which is advisory and not mandatory, for their respective Engineering Committees, while the TSSC is responsible for reviewing the manner in which these activities are carried out.

A2. Responsibilities

The TSSC is specifically responsible for the following functions:

- (1) to review the scope for any requested TIA Standards project;
- (2) to act as a procedural review body, to review the comment resolution action on TIA Standards Proposals that have continuing objections, and to give final approval for their publication as TIA Standards;
- (3) to resolve disputes between Formulating Groups, if possible;
- (4) to monitor projects of other Standards Developing Organizations for overlap with TIA projects;
- (5) to oversee the relations between the Standards and Technology Department and its Engineering Committees and other portions of the TIA and other trade associations, technical societies, national and international standards organizations, and governmental bodies.

A3. Membership

The membership of the TSSC consists of the following:

- (1) the Chair of the TIA Technical Committee, who is also Chair of TSSC;
- (2) the Vice Chair of the TIA Technical Committee, who is also the Vice Chair of the TSSC, and who will act in the Chair's absence;
- (3) the Chair of each Division, or a duly delegated representative;

- (4) the Chair (or in the Chair's absence the Vice Chair) of each Engineering Committee;
- (5) limited number of persons, not exceeding six, to act as members-at-large, as appointed by the TSSC. Members-at-large should be of such national distinction and experience as to aid and complement the TSSC in its procedural reviews and managerial functions.

The term of office of the members-at-large shall be one year. They shall be eligible for reappointment;

- (6) the head of TIA's Standards Program, *ex officio*. The head of TIA's Standards Program or a designated representative is the Secretary of the TSSC.

A4. Operation of the Technical Standards Subcommittee (TSSC)

The TSSC shall operate through meetings held in person, by telephone, or by other suitable telecommunications means, and through mail or electronic distribution of documents and ballots.

- (1) The TSSC shall hold at least one meeting per year at such time and place as directed by the Chair. As many additional meetings as shall be deemed necessary in the judgment of the Chair and the head of TIA's Standards Program may be called by the Chair to carry out the TSSC's responsibilities. The meeting can be held concurrently with a Technical Committee meeting if the Chair so elects. All members of TIA and its Engineering Committees may participate but not vote at TSSC meetings. However, the Chair may restrict attendance at all or part of a meeting to TSSC members.
- (2) A meeting notice and agenda for each meeting shall be issued by the Secretary to each Member of the TSSC not less than one month prior to the meeting date. The notice of the meeting shall also be posted on the TIA website. In emergency situations, the time requirements may be waived.
- (3) The Chair (or Vice Chair) shall preside, and the Secretary shall keep the minutes or reports of all meetings. The Chair may designate a presiding officer pro tem if he or she or the Vice Chair will not be present.
- (4) A quorum of the TSSC shall be a majority of the voting Members or their designated representatives. A simple majority of those present shall be adequate for taking action on all matters. A representative may be designated in writing by a TSSC Member to vote on their behalf. Failure to attend two consecutive meetings shall cause loss of voting status unless non-attendance was excused by the Chair. Failure to return a TSSC ballot also counts as missed meeting.
- (5) When matters are referred to the TSSC for action by letter ballot, a two-thirds majority of the eligible voters is required to take action except as otherwise provided.

- (6) The Secretary shall be responsible for the circulation of all documents and ballots that come to the Subcommittee in the conduct of its business. The Secretary has the authority to delegate the responsibility of circulation of ballots to the TIA Standards Secretariat.
- (7) The TSSC may authorize or the Chair may appoint such special Task Groups as the responsibilities of the TSSC may require.
- (8) If the TIA Standards Secretariat receives notification from other SDOs of particular Project Initiation Notification System (PINS) Forms of interest to TIA, then the information shall be forwarded to the TSSC for review and to monitor duplication with TIA's Standards activities. Depending on the issues raised, appropriate action may be required.
- (9) In acting to approve or disapprove a new or revised Standards Proposal for the TIA, the TSSC shall act in a procedural and policy review capacity only, without regard to technical subject matters, to ensure that:
 - (a) the Proposal has been prepared in accordance with the rules of the Standards and Technology Department and the Legal Guides therefor;
 - (b) the Proposal includes a valid justification of need;
 - (c) all known parties having a substantial interest in the subject have been given a fair opportunity to be heard and to express approval or disapproval or comment including, if warranted, an opportunity to briefly present their views directly to the TSSC;
 - (d) a proper tabulation of approve, approve with comment, disapprove with comment, and abstain has been submitted;
 - (e) all comments accompanying favorable returns have been acknowledged and have received consideration;
 - (f) all unfavorable comments submitted with substantive technical reasons have been considered by the responsible Committee, and that its Chair has diligently attempted to resolve such comment either through personal meeting or correspondence;
 - (g) there is evidence of consensus of all parties of interest. (Unanimity of opinion is not required.)

A5. Appeals

Persons who have directly and materially affected interests and who have been or will be adversely affected by a Standard or Specification within the TIA's jurisdiction, or by the lack thereof, shall have the right to formally appeal substantive or procedural actions of the TIA Standards and Technology Department and its Formulating Groups. Parties

are encouraged to file informal complaints to the head of TIA's Standards Program early in the process if they believe the TIA standardization process is not being followed.

A5.1 Complaints

The Appellant shall file a written complaint with the Standards and Technology Department within 30 days after the date of notification of action or at any time with respect to inaction. The complaint shall state the nature of the objection(s) including any adverse effects, the clause(s) of these procedures or the Standard(s) that are at issue, actions or inactions that are at issue, and the specific remedial action(s) that would satisfy the Appellant's concerns. Previous efforts to resolve the objection(s) and the outcome of each shall also be noted. A copy of the complaint shall be served on the Respondent by the Appellant concurrent with the filing at TIA.

A5.2 Response

Within 30 days after receipt of the complaint, the Respondent (TIA, Formulating Group Chair or Department representative) shall respond in writing to the Appellant, specifically addressing each allegation of fact in the complaint to the extent of the Respondent's knowledge. A copy of the response shall be filed with the Standards and Technology Department.

A5.3 No Further Filings

No further filings beyond the Complaint and Response are allowed unless an Appeals Panel authorizes additional filings.

A5.4 Hearing

If the Appellant and the Respondent are unable to resolve the written complaint informally in a manner consistent with these procedures, the Standards and Technology Department shall schedule a hearing with an Appeals Panel if requested to do so by the Appellant, and provided the Appellant has paid the \$1,000 Appeals Fee to TIA. If the Appellant can demonstrate economic hardship for the payment of the Appeals Fee, TIA will give fair consideration to granting either an Appeals Fee reduction or waiver. Each side shall bear its own attorney's fees incident to the Appeal. Typically such hearings will be held within 3 months after filing of the Response or any additional documents permitted by the Panel. The hearing shall be on a date agreeable to all participants and the Appeals Panel or at least ten (10) business day's notice.

A5.5 Appeals Panel

TIA will provide to Appellant a list of individuals who have agreed to be considered as candidates to serve on TIA Appeals Panels. This list will include individuals with standards experience. The Appeals Panel shall consist of three individuals who have not been directly involved in the matter in dispute and who will not be materially or directly affected by any decision made or to be made in the dispute. At least two Members of the Appeals Panel shall be acceptable to the Appellant, and at least two shall be acceptable to the Respondent. A questionnaire seeking background

information and potential bias shall be served on possible candidates for the Appeals Panel. Copies of the completed questionnaires shall be delivered to the parties to the Appeal. (Note for reviewers: model questionnaire to be included in the next revision of the Manual) Initially, each side, starting with the Appellant, shall alternately strike a name from the list, until only one remains and that candidate shall be the Chair of the Appeals Panel and the Member acceptable to both sides. After that Member is chosen, each side will select one additional Member from the list. Members of the Appeals Panel will be compensated for their reasonable expenses and time in preparation for and during their attendance at the Hearing and for time spent on the decision phase of the Appeal.

A5.6 Preparation for the Hearing

In preparation for the Hearing, each Member of the Appeals Panel will be provided the Complaint filed per Section A5.1 and Response filed per A5.2, along with a copy of the TIA Engineering Manual, Advisory Notes, and the record of the matter at issue. No other filings are allowed unless authorized by a majority of the Panel. The Appeals Panel may serve Questions on the Respondent or Appellant before the Hearing to help focus the issues. Each side can file a brief Response not in excess of five pages in length to any Answers provided by the other side in accordance with the schedule established by the Panel.

A5.7 Communications with the Appeals Panel

No party shall communicate with any member of the Appeals Panel (except by invitation of the Panel, upon notice therefore to all parties) an except for presentations at a Hearing as provided in these rules.

A5.8 Conduct of Hearing

The Appellant has the burden of demonstrating improper actions or inactions complained of, adverse effects of such improper actions or inactions, and the efficacy of the requested remedial action. If the Appellant has met its burden, the Respondent has the burden of demonstrating that the Formulating Group, Chair, TSSC, and the Department took all actions in compliance with the version of these procedures in effect during the time period in question and that the requested remedial action would be ineffective, detrimental or is otherwise unwarranted.

The hearing shall be conducted in an informal manner and subject to such rules as the Appeal Panels may determine. The Appeals Panel and the parties shall not be bound by any formal rules of evidence.

Each party may have up to 5 persons in attendance at the Hearing.

Each party shall present its views through a person of its choosing, without interruption for up to one hour, saving a part of the time for rebuttal if desired. The Appellant shall go first. Members of the Appeals Panel shall then have up to thirty minutes of questions directed to each side, 30 minutes each side. Parties may suggest questions that they believe the Panel should ask the other side, but all questions must come from the Panel

and there shall be no cross-examination or direct questioning or interruption of one side by the other. After a recess of one hour, the Respondent shall deliver a Closing Statement for not more than 15 minutes in length followed by a Closing Statement of the Appellant. The Panel may again pose questions to either side for 30 minutes total. Each side will then have 5 minutes for a Summation, starting with the Appellant. The Chair of the Panel shall enforce the time limits.

Representatives of other interested parties shall be allowed to observe the Hearing and will not be allowed to directly participate, except with the permission of the Appeals Panel.

Any documents requested by the Appeals Panel during the Hearing shall be provided to the Chair of the Panel within 10 days of the Hearing.

Closing briefs shall be filed only if specifically requested by the Appeals Panel and in time frame requested.

A5.9 Decision

The Appeals Panel shall render its decision by majority vote and in writing within 30 days of the Hearing, stating findings of fact and conclusions, with reasons therefor, based on a preponderance of the evidence. The decision shall reference the controlling sections of the Engineering Manual.

Consideration may be given to the following positions, among others, in formulating the decision:

- (1) finding for the Appellant, remanding the action to the Committee or the department with a specific statement of the issues and facts in regard to which fair and equitable action was not taken;
- (2) finding for the Respondent, with a specific statement of the facts that demonstrate fair and equitable treatment of the Appellant and the Appellant's objections;
- (3) finding that new, substantive evidence has been introduced, and remanding the entire action to the Committee or the Department for the appropriate reconsideration.

A5.10 Further Appeal

If the matter under Appeal relates to a TIA Standard or Specification, a TIA Bulletin, or other non-ANSI matter, then either side may seek further Appeal to the TIA Executive Committee any portion of the Appeals Panel decision. The full record of the complaint, response, hearing documents, and decision shall be submitted to the TIA Executive Committee for its review on further Appeal.

The Executive Committee shall make its decision on the record before it with no further hearings except that it may, if it deems it appropriate, allow each party to make a written

or oral statement with the oral statement limited to fifteen minutes on behalf of each party.

If the matter under appeal relates to a TIA Standard or Specification that has been recognized as an American National Standard, further appeal may be made directly to ANSI in accordance with its procedures.

ANNEX B - TIA Legal Guides

Part I – General Guides Applicable to All TIA Activities

This PART I includes general guides applicable to all Telecommunications Industry Association activities. They are required to be read and followed by all Members of the Association and Staff, Chairs and Members of all Committees, Sections, Divisions, and other TIA sponsored groups.

It is the policy of the TIA strictly to comply with the antitrust laws and regulations of the United States and any other jurisdiction applicable to TIA meetings, programs, or activities. Any discussion or conduct in violation of such laws or regulations is contrary to TIA policy and shall be avoided.

Section A. Improper Activities and Programs

TIA activities or programs relating to any of the following subjects are **improper** and are **not permitted**:

- (1) **Restraint of Trade Agreements.** The establishment of prices, production quotas, or uniformity of conduct, the allocation of customers or markets, Standard terms or conditions of sale, boycotts, or other competitive restraints are improper activities. Therefore, any activities within, or in conjunction with, Association meetings relating to any of these matters are improper and Committee Chairs, Staff, and participants should take affirmative action to assure that no such discussions are initiated or pursued.
- (2) **Prices and Pricing Policies.** Any consideration or discussion of product prices or industry pricing policies is improper and therefore not permitted. This applies to all discussions and casual remarks relating to individual company prices, changes in prices, or general price levels whether involving formal or informal exchanges between participating representatives. Such discussions are improper and must be avoided.
- (3) **Terms and Conditions of Purchase and Sale.** Any discussion at, or in conjunction with, TIA meetings of terms and conditions of purchase and sale, including but not limited to warranty and warranty periods, discounts, allowances, or terms of credit, or the formulation of uniform or Standard terms and conditions of purchase or sale, uniform basing points or zoning prices, or the recommendation thereof for voluntary use by the Membership also is improper and is prohibited. It is usually proper, however, to discuss and propose comments and recommendations to Government agencies relating to general contract provisions, or modifications thereof, or other procurement practices or policies proposed or adopted by such agencies.
- (4) **Costs.** Programs or activities involving the exchange of information relating to individual company costs of production or distribution and any formulas for

computing such costs are improper. Discussions at TIA meetings of industry costs are not permitted.

- (5) **Future Plans.** Programs involving the exchange of future plans of individual companies affecting the design, research and development, production, and distribution or marketing of products are also improper. Any discussions at TIA meetings relating to such programs are not permitted. This does not preclude normal new product introductions or announcements at TIA sponsored trade shows.
- (6) **Boycotting Customers or Products.** Any activity involving the blacklisting or boycotting of customers, competitors, suppliers, or others or establishment of patterns of uniform dealing is improper. Therefore, there shall be no activities relating to any form of boycotting or any activity that may be interpreted as such.

Section B. Procedures for Conducting Activities

IMPORTANT NOTICE OF PARTICIPATION

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of the TIA Engineering Manual and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of TIA's Standards Program on a case-by-case basis.

Intellectual Property Rights Policy

TIA has an Intellectual Property Rights (IPR) Policy, the full text of which can be found in the TIA Engineering Manual (www.tiaonline.org/standards/procedures/manuals/engineering.cfm). We call to the attention of participants and attendees that TIA's Policy is to encourage, but not require, the voluntary disclosure (preferably early) of Essential Patent(s) and published pending patent application(s) that may be essential to the practice of a TIA Publication. If any such disclosures are made, the procedures to be followed are contained in Sections (1) through (5) in the Introduction of this Manual.

To further assist in the understanding of this Policy, refer to "Guidelines to the Intellectual Property Rights Policy of the Telecommunications Industry Association" posted on the TIA website at www.tiaonline.org/standards/procedures/ipr/index.cfm

When an Essential Patent(s) has been identified in any proposed Standard, TIA will follow a policy based upon that of the American National Standards Institute (ANSI) (www.ansi.org).

- (1) **Notices and Agendas.** Notices and agendas for TIA meetings shall be prepared in advance and distributed prior to the date of the meeting. Agendas shall not include any subjects that are stated as improper for consideration or discussion under the rules established in these Legal Guides. All agendas otherwise shall be in conformity with the rules established in the TIA Engineering Manual and any rules which may be established by the TIA General Counsel or an attorney authorized by TIA General Counsel. Any exceptions must be specifically approved by the TIA General Counsel or an attorney authorized by TIA General Counsel or an attorney authorized by TIA General Counsel. Whenever feasible, background information which would be helpful in the consideration of items on the agenda should be distributed in advance of meetings.
- (2) **Conduct of Meetings.** All meetings shall be conducted in such a way as to assure ample opportunity and freedom in the exchange of ideas and an equal voice in all decisions by parties entitled to vote thereon. Committee Chairs and TIA Staff personnel shall make sure that all actions and discussions at meetings are kept within the bounds of proper Association activity. Committee Chairs should immediately rule out of order discussion deemed improper or questionable under the policies set forth herein until the propriety of such discussion has been determined by General Counsel. If any doubt exists concerning the propriety of a program, either from a legal or policy point of view, it shall not become final or effective until after review by General Counsel. Committee Chairs should follow the published agenda and not depart therefrom except for a good and legitimate reason, in which event the reports should record the reasons for such departure.
- (3) **Voting in Committees.** All Committees other than Engineering Committees shall adopt rules consistent with these Guides and other rules, policies and by-laws adopted by the TIA to ensure that each company represented shall be entitled to vote in a manner which will give equal weight to the vote of each company represented on the Committee, regardless of the number of representatives from any one company, if there should be more than one. Engineering Committees shall follow the rules set forth in the TIA Engineering Manual.
- (4) **Preparation and Review of Reports.** Reports of all meetings shall be taken and recorded. Reports shall include the time and place of the meeting, a list of all Committee Members and non-Members attending, a statement of all matters discussed and actions taken with appropriate reasons therefore, and a record of all voting. The votes of participants need not be identified by company or individual.

All meeting reports shall be approved by the TIA General Counsel or an attorney authorized by TIA General Counsel or an attorney authorized by the TIA General Counsel or an attorney authorized by TIA General Counsel before distribution. Upon approval, they should be distributed to all Members of the Committee and any other TIA Members desiring or requesting copies.

Part II – Special Guides Applicable to Engineering Standardization Programs

This PART II contains legal policies applying specifically to the operations and conduct of all TIA engineering Standardization and related programs. It details the general policies of the TIA and supplements the procedures contained in Standards and Technology Department "Engineering Manual" ("Manual"). In addition to the rules established in this PART II, all engineering Standardization programs are required to be conducted in accordance with the rules set forth in PART I of these Legal Guides.

Section A. Limitations On Standardization Programs

TIA Standardization programs shall be confined to the formulation of Standards within the rules set forth in this PART II defining or describing the dimension, quality, reliability, operating characteristics, performance, compatibility, interoperability, nomenclature, or any combination of these, and similar factors relating to telecommunications products, processes, systems, and procedures or those useful in the provision of communications services. These programs include not only those sponsored or initiated by the TIA and its Members but also those recommended by Government agencies.

Section B. Statement of Policy

The following statement of policy, reflecting the basic objectives of all Standardization programs, shall be included in all TIA Standards:

"TIA Standards are designed to serve the public interest by eliminating misunderstandings between manufacturers and purchasers, facilitating interoperability, interchangeability and improvement of products, and assisting the purchaser in selecting and obtaining the proper telecommunications product for their particular need. Existence of such Standards shall not in any respect preclude any Member or non-Member of the TIA from manufacturing or selling products not conforming to such Standards.

"Except as provided in the Engineering Manual, Standards are proposed or adopted by the TIA without regard to whether their proposal or adoption may in any way involve patents or intellectual property on articles, materials, or processes. By such action, the TIA does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting TIA Standards, to parties manufacturing or selling products or services conforming to such Standards or to users of such products or services. Other TIA rules respecting Standards where patents are involved are contained in the Manual and should be read in conjunction with these Guides-PV. Furthermore, in all cases specific requirements and restraints expressed elsewhere in these Guides must govern."

Section C. Basic Rules for Conducting Programs

All TIA Standardization programs shall be conducted in accordance with the following basic rules:

- (1) They shall be carried on in good faith under policies and procedures which will assure fairness and unrestricted participation;
- (2) Participation shall be extended to all technically qualified Members of the industry, including representatives of user groups where appropriate, irrespective of Membership in the TIA;
- (3) Each program shall be shown to serve one or more of the public interest objectives as provided in Section D of this PART II;
- (4) They shall not involve any agreement, expressed or implied, to adhere, or require adherence to a Standard or the use of any coercion, directly or indirectly, with respect thereto;
- (5) They shall not be proposed for or indirectly result in:
 - (a) effectuation of a price fixing arrangement, facilitating price uniformity or stabilization, or restricting competition, giving a competitive advantage to any manufacturer, excluding competitors from the market, limiting or otherwise curtailing production, or
 - (b) reducing product variations except where required to meet one or more of the objectives set forth in Section D of this PART II; and
- (6) Personnel participating in such programs as the representatives of Members of the industry should be technical personnel.

Section D. Selecting a Program

All Standardization programs must be shown to serve a legitimate public interest objective and that objective should be specifically stated in the context of the Standard. To assure this, the program should relate to the achievement of one or more of the following objectives:

- (1) promoting interchangeability and interoperability of products falling within the scope of TIA Engineering Committees;
- (2) eliminating misunderstandings or confusion between manufacturers and buyers with respect to products on which TIA Standards or Specifications are adopted;
- (3) providing assistance to the purchaser in selecting and obtaining the proper product for a particular need;
- (4) improving the quality of products covered by TIA Standards or Specifications.

Section E. Notice of Meetings

Advance notice shall be given to all participating representatives as to the matter to be considered for Standardization and the nature of the action being contemplated.

Procedures should provide reasonable means for making available all data, Specifications, and other technical information relating to a product, process or technology proposed for Standardization to all persons participating in or contributing to the program involved irrespective of their Membership in the TIA. Committee activities should be limited to discussions of the engineering and technical aspects of Standardization or the procedures relating thereto.

Section F. Special Rules for Conducting Standardization Programs

- (1) **Voluntary Adherence to Standards.** Adherence to Standards shall be entirely voluntary and within the discretion of individual manufacturers. Any agreement, expressed or implied, or any coercion, direct or indirect, to adhere or to require or compel adherence to a Standard is **not permitted**.
- (2) **Engineering and Technical Considerations.** All Standardization activity shall be confined to the technical and engineering considerations in the establishment of a Standard and these considerations shall relate to one of the legitimate objectives as provided in Section D of this PART II.
- (3) **Commercial Standards.** Standardization relating to the commercial aspects of products, such as conditions or terms defining commercial relationships between manufacturer and buyer with respect to engineering Standards is **not permitted**. This type of activity is the proper concern of each interested company acting individually and is not a proper Association activity. (See Section A(3), PART I of these Guides.)
- (4) **Standards Involving Quality or Performance.** Generally, Standards relating to quality or performance of products should not specify or describe the characteristics of such products in terms of maximum quality or maximum performance. This does not preclude Standards stated in terms of maximum or minimum - maximum characteristics which are prescribed for the sole purpose of indicating that the product meets certain limited requirements and is designed to serve limited technical functions and purposes. Such Standards generally involve product differentiation as distinguished from product quality. Standards may include suggested specific AQL's (Acceptable Quality Level) for guidance purposes with the actual AQL to be agreed upon between the manufacturer and the user, or include ranges of AQL's for the same purpose.
- (5) **Interpretation of Standards.** The interpretation of Standards, insofar as it may relate to a specific product or manufacturer, is a proper matter for individual company concern and should not be undertaken by TIA Staff Members or any person acting in the capacity of a TIA Engineering Committee Member. TIA Staff comments, if any, shall be limited to an explanation or clarification of technical language or provisions in a Standard but not related to its application to specific products or manufacturers. Means are provided in the Engineering Manual for the rendering of formal interpretations of TIA Standards, which interpretations will be available to all interested parties.

- (6) **Acceptability of Standards.** All proposed Standards recommended by TIA Engineering Committees or task groups shall be submitted for final review and approval in accordance with the TIA Standards and Technology Department's Engineering Manual.
- (7) **Final Adoption.** Final adoption of proposed Standards shall be in accordance with the Standards and Technology Department's Engineering Manual. In the process of adopting a Standard, consideration shall be given to all comments of industry and user interests where applicable irrespective of TIA Membership, and industry consensus must be demonstrated. If there is no consensus on the adoption of a proposed Standard, or if due process has not been afforded all commentators, the program involving such Standard should be abandoned or referred to an appropriate Formulating Group for further consideration.

Section G. Procedures for Commenting on Military Specifications and Products

In offering comments or recommendations to elements of the Department of Defense on Military Standardization documents, the following procedures shall be followed:

- (1) Participation shall be unrestricted and extended to all companies which have made known their interest regardless of Membership in the TIA or on the cognizant Committee or Committees;
- (2) Adequate notice of meetings shall be given all Committee Members and all other companies or representatives known to have an interest and shall include all issues to be discussed;
- (3) Comments and recommendations shall be offered merely as such, limited to the technical aspects of the Specifications, and shall reflect any divergence of views among those participating;
- (4) Copies of comments and recommendations shall be sent to all company representatives known to have an interest;
- (5) All submissions to the military departments shall contain a statement that the comments and recommendations reflect only the views of the group participating; and
- (6) They shall be reviewed and submitted by TIA Staff in accordance with established procedures.
- (7) All applicable laws and regulations shall be strictly adhered to.

ANNEX C – TIA Standards and Technology Department Forms

Project Request and Authorization Form can be found at:

http://www.tiaonline.org/standards/procedures/project_request_form.cfm?newrequest=1

Existing Project Request and Authorization Form can be found at:

http://www.tiaonline.org/standards/procedures/forms/pn_request_form.cfm

Ballot Authorization Form can be found at:

<http://www.tiaonline.org/standards/procedures/forms/ballot.cfm>

TIA Publication Authorization Form can be found at:

<http://www.tiaonline.org/standards/procedures/forms/publication.cfm>

TIA Change Vote Form “Blue Card” can be found at:

http://www.tiaonline.org/standards/procedures/forms/blue_card.cfm

Reaffirmation of TIA only documents can be found at:

<http://www.tiaonline.org/standards/procedures/forms/reaffirmation.cfm>

Withdrawal of TIA only documents can be found at:

<http://www.tiaonline.org/standard/procedures/forms/withdrawal.cfm>

ANNEX D – Sample Meeting Notice & Agenda

Organization: TIA-TR-15
High Frequency Communications Systems and Equipment

Chair: Willard P. Smith
202-457-4912, wsmith@anywhere.com

Date: June 16, 2006

Time: 9:00 a.m.-5:00 p.m.

Place: Toledo Towers Hotel
Toledo, OH
(900) 238-1056

IMPORTANT NOTICE OF PARTICIPATION

Participation in, or attendance at, any activity of a TIA Formulating Group or any sub-element thereof, constitutes acceptance of and agreement to be bound by all provisions of the TIA Engineering Manual and permission that all communications and statements, oral or written, or other information disclosed or presented, and any translation or derivative thereof, may without compensation, and to the extent such participant or attendee may legally and freely grant such copyright rights, be distributed, published, and posted on TIA's web site, in whole or in part, on a non-exclusive basis by TIA or TIA's licensees or assignees, or as TIA directs. Exceptions to the foregoing may be granted or permitted in writing to the Chair of the Formulating Group by the head of TIA's Standards Program on a case-by-case basis.

AGENDA

1. Call to Order
2. Approval of Meeting Report (Meeting 53)
3. TIA IPR Policy
4. Subcommittee Reports
5. Consideration of PN-3-4035 (High Speed Interface) for circulation as a Standards Proposal.
6. Set future meeting schedule
7. Other Business – (i.e., Reaffirmation of Chairs)
8. Adjournment

Annex E – Sample Meeting Report

Telecommunications Industry Association

Standards and Technology Department

Meeting Report, Meeting Number 54

Committee TR-15 High Frequency Communications Systems and Equipment

June 16, 2006 Toledo Towers Hotel Toledo, OH

Quorum Members Present

<u>Name</u>	<u>Organization Represented</u>
Willard P. Smith (Chair)	Afgo Communications
Moe Diehl	Acme
Joe Morgan	Uvicom
Douglass de Jesus	Ephemerex
Tom Nissan	Holorex
Fred Once	De Coriolis Data Systems

Quorum Members Absent

<u>Name</u>	<u>Organization Represented</u>
David LeBest	Demovox
Enid Howard	Southern ComTel
Arnold Lafitte	Duro Inc

Others:
(None)

1. Call to Order

The meeting was called to order at 9:00 am, on Friday, June 14, 2002, by Chair Willard P. Smith. The meeting was held at the Toledo Towers Hotel, Toledo, OH. The Chair announced that a quorum was present. The Chair inquired whether any attendee was aware of any patents that had not yet been disclosed that might relate to any of the pending standards in the Committee. Moe Diehl advised that he believed MicroFirm held at least 2 essential patents on the high-speed interface described in PN-3-4035. The Chair indicated he/she will have the TIA Standards Secretariat follow up with MicroFirm.

2. Meeting Report

The Meeting Report of Meeting Number 53 was accepted with editorial corrections.

3. IPR Policy

The Chair referred the attendees to the TIA IPR Policy in the Engineering Manual and on the TIA website. No IPR statements were made at this meeting.

4. Subcommittee Reports

The Chair of Subcommittee TR-15.1, Ephemeral Interfaces, reported that the Subcommittee had completed work on project PN-3-4035, Ephemeral Communications, High-speed Interface, and had voted unanimously to request that it be issued for public comment as a Standards Proposal. Since the final draft of PN-3-4035 had been mailed to all TR-15 members in advance of the meeting, and the Proposal had been included in the published agenda, the Chair called for discussion prior to a vote to issue a Committee Letter Ballot to approve PN-3-4035 as an SP. Mr. Once asked the Subcommittee Chair to explain the need for dual backsignals on the F3 and Q5 leads, when it seemed that either one would do. The Chair explained the Subcommittee's rationale, which concerned time delays on satellite circuits. Mr. Once withdrew his objection. The Committee then voted 6-0 for release of the letter ballot.

There were no action items from the other Sub-committees. Two draft documents from TR-15.2 were distributed for information.

5. Future Meetings

The next meeting will take place September 4-7 at the Sunnyside Hilton, Sunnyside, GA and will be hosted by Demovox and Uvicom.

The schedule for the next meeting is as follows:

<u>Tues, 9/04</u>	<u>Wed, 9/05</u>	<u>Thurs, 9/06</u>	<u>Fri, 9/07</u>
TR-15.4	TR-15.3	TR-15.1	TR-15.2
TR-15.2.1	TR-15.2.1	TR-15	

6. Other Business

All of the Subcommittee Chairs reported they had completed the Reaffirmation process. The Committee unanimously voted to Reaffirm Willard Smith again, he has been ably leading this Committee for 23 years.

There was no other business.

7. Adjournment

The meeting was adjourned at 5:00 pm. This meeting was conducted in accordance with the TIA Legal Guide and TIA Engineering Manual.

/Signature/

Willard P. Smith, Chair TR-15 High Frequency Communications Systems and Equipment

Document Register

Committee: TR-15 Year: 2006

<u>Document Number</u>	<u>Title</u>	<u>Source</u>
TR-15/2006/06/001	PN-3-4035 High Speed Interface	TR-15.1
TR-15/2006/06/002	IS for Automode Procedures	TR-15.2
TR-15/2006/06/003	Modem (GSTN) Beyond 14400 bit/s	TR-15.2

ANNEX F – TIA SUBMISSION COVER SHEET TEMPLATE

This template is a suggested format for the cover sheet to be used when submitting a document to a TIA Formulating Group. Regardless of whether this format is used or not, there are four required elements that must be contained in a cover sheet in whatever form the submitter prepares. These elements (shown in gray shading in the attached template) are: the statement in the exact words described in Section 6.4.5 of the TIA Engineering Manual dated October 2009 and shown in the first shaded box, the name of the Source as defined by the TIA Engineering Manual, the name of the person who prepared or submitted the document, and the intended purpose of the document.

If a submission contains Software, then Annex G, “Software Copyright Holder Statement,” and/or Annex I, “TIA Software Evaluation License,” may be applicable for protection of certain Software copyrights.

ANNEX F.1 – TIA SUBMISSION COVER SHEET TEMPLATE WITH OPTIONAL DISCLOSURE CLAUSES

This template is a suggested format for a cover sheet with optional patent disclosure clauses that may be used when submitting a document to a TIA Formulating Group. If used, the optional disclosure clauses must conform to the wording set forth in Section 6.4.7 of the TIA Engineering Manual dated March 2005. Regardless of whether this format is used or not, there are four required elements that must be contained in a cover sheet in whatever form the submitter prepares. These elements (shown in gray shading in the attached template) are: the statement in the exact words described in Section 6.4.5 of the TIA Engineering Manual and shown in the first shaded box, the name of the Source as defined by the TIA Engineering Manual, the name of the person who prepared or submitted the document, and the intended purpose of the document.

The optional patent disclosure clauses from Section 6.4.7 for possible inclusion in a contribution cover sheet are shown in the attached template.

If a submission contains Software, then ANNEX G, “Software Copyright Holder Statement,” and/or ANNEX I, “TIA Software Evaluation License,” may be applicable for protection of certain Software copyrights.

PATENT DISCLOSURE [OPTIONAL]²³

The submitter presenting this Contribution has reason to believe that there are patent(s) and/or published pending patent application(s) that may be essential to the practice of all or part of this Contribution as incorporated in a TIA Publication.

OR

The Source may have patent(s) and/or published pending patent application(s) that may be essential to the practice of all or part of this Contribution as incorporated in a TIA Publication, and the Source is willing to comply with Paragraphs 1, 2(a), or 2(b) of ANNEX H of the TIA Engineering Manual dated October 2009 as to such patent(s) and/or published pending patent application(s).

²³ Per Section 6.4.7 of the Manual, early disclosure can be made by the submitter using one of the following phrases.

ANNEX G – SOFTWARE COPYRIGHT HOLDER STATEMENT

† This Software Copyright Holder Statement is located at http://www.tiaonline.org/standards/procedures/ipr/ipr_statement.cfm?form_type=software, and such form shall be used to submit Software Copyright Holder Statements whether electronic or written. One form per Reference Document should be submitted. If you do not know the Reference Document Number, please contact TIA Standards Secretariat at +1.703.907.7961.

‡ For definitions of terms used in this statement, please refer to TIA's Engineering Manual dated October 2009 located at <http://www.tiaonline.org/standards/procedures/manuals/engineering.cfm>

Date Statement Completed:	
Reference Document Number: (refer to Project Number, Standards Proposal Number, or reserved or actual document number)	
Reference Document Title: (optional)	
Software Copyright Holder Name:	
Software Copyright Holder Mailing Address:	
Software Copyright Holder Web Site: (optional)	
Name of IPR Contact Person:	
Title of IPR Contact Person:	
Submitter Name:	
Submitter Mailing Address (if different than listed above for Software Copyright Holder):	
Software Name or Identification and Version (the "Software"):	
Telephone:	
Fax:	
Email:	

On behalf of the above Software Copyright Holder, and being authorized by the Software Copyright Holder to make such statements, the following is indicated:

With respect to the Software as it exists on the date of submittal of this form, should such Reference Document be approved as a Standard:

(mark those Paragraphs below that are applicable)

(1) The undersigned Software Copyright Holder states:

___ The undersigned waives its copyright in the Software to the extent necessary to practice any or all of the Normative Portions of the above Reference Document for the field of use of practice of the Standard.

(2) The undersigned Software Copyright Holder states one of the following:

___ a) A license to reproduce, use and distribute the Software, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, without monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document for the field of use of practice of the Standard;

OR

___ b) A license to reproduce, use and distribute the Software, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, which may include monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document for the field of use of practice of the Standard.

Either Paragraph (2a) or (2b), whichever is selected above, **may be modified** below by marking one or both of the following:

___ The commitment to license above selected will be made available only on a reciprocal basis. The term "reciprocal" means that the licensee is willing to license the licensor in compliance with either Paragraph (2a) or (2b) above as respects the practice of the above Reference Document.

___ The license made available by the undersigned will include the right to modify the Software, provided the licensee is willing to make available to the licensor a license to reproduce, use and distribute any modifications to the Software, in both cases and only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document for the field of use of practice of the Standard.

The statements contained in Paragraphs (2a) or (2b), if marked, along with any modifications selected above are irrevocable and shall be binding upon the undersigned. In the event the rights of the undersigned in and to the Software subject to such commitments are assigned or transferred, the undersigned shall notify the assignee or transferee of the existence of such commitments.

Agreed on behalf of the above Software Copyright Holder:

(Signature) (Title)

(Name printed) (Date)

ANNEX H – PATENT HOLDER STATEMENT-SPECIFIC

†This Patent Holder Statement is located at http://www.tiaonline.org/standards/procedures/ipr/ipr_statement.cfm, and such form shall be used to submit Patent Holder Statements whether electronic or written. One form per Reference Document should be submitted, however, the Patent Holder Statement-General can be used for multipart Standards or other specific groupings of Reference Documents. If you do not know the Reference Document Number, please contact TIA Standards Secretariat at +1.703.907.7961.

‡ For definitions of terms used in this statement, please refer to TIA's Engineering Manual dated October 2009 located at <http://www.tiaonline.org/standards/manuals/engineering.cfm>

Date Statement Completed:	
Reference Document Number: (refer to Project Number, Standards Proposal Number, or reserved or actual document number)	
Reference Document Title: (optional)	
Patent Holder Name:	
Patent Holder Mailing Address:	
Patent Holder Web Site: (optional)	
Name of IPR Contact Person:	
Title of IPR Contact Person:	
Submitter Name:	
Submitter Mailing Address (if different than listed above for Patent Holder):	
Telephone:	
Fax:	
Email:	

On behalf of the above Patent Holder, and being authorized by the Patent Holder to make such statements, the following is indicated:

With respect to any Essential Patent(s) necessary for the practice of any or all Normative portions of the above Reference Document as it exists on the date of submittal of this form, should such Reference Document be approved as a Standard:

(mark those Paragraphs below with an "X" that are applicable)

(1) The undersigned Patent Holder states:

___ It does not hold the rights to license any Essential Patent(s) necessary for the practice of any or all of the Normative portions of the above Reference Document.

(2) The undersigned Patent Holder states one of the following:

___ a) A license under any Essential Patent(s), the license rights to which are held by the undersigned Patent Holder, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, without monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document for the field of use of practice of the Standard;

OR

___ b) A license under any Essential Patent(s), the license rights to which are held by the undersigned Patent Holder, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, which may include monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document for the field of use of practice of the Standard.

Either Paragraph (2a) or (2b), whichever is selected above, **may be modified** below by marking one or both of the following:

___ The commitment to license above selected will be made available only on a reciprocal basis. The term "reciprocal" means that the licensee is willing to license the licensor in compliance with either Paragraph (2a) or (2b) above as respects the practice of the above Reference Document.

___ The undersigned Patent Holder hereby limits its commitment to license under either Paragraph (2a) or (2b) above to the Essential Patent(s) identified by issuance and filing dates and numbers on Exhibit "A" attached hereto, and represents that Exhibit "A" contains all the undersigned's known licensable Essential Patent(s) rights, as of the date stated below, only to the extent necessary for the practice of any or all of the Normative portions of the above Reference Document. The undersigned Patent Holder undertakes to advise TIA of any licensable Essential Patent(s) rights of the undersigned which become known to the undersigned after this date and to notify TIA whether a license will be made available with respect thereto in accordance with the TIA IPR Policy. Nothing in this statement requires the undersigned Patent Holder to make a patent search.

The statements contained in Paragraphs (2a) or (2b), if marked, along with any modifications selected above are irrevocable and shall be binding upon the undersigned. In the event the rights of the undersigned in and to the Essential Patent(s) subject to such commitments are assigned or transferred, the undersigned shall notify the assignee or transferee of the existence of such commitments.

If none of the above Paragraphs are marked, the undersigned Patent Holder states that it declines to make any commitments to license on the terms set forth in Paragraphs (1), (2a) or (2b) above.

Agreed on behalf of the above Patent Holder:

(Signature)

(Title)

(Name printed)

(Date)

ANNEX H.1 – PATENT HOLDER STATEMENT-GENERAL

Scope means the TIA subject matter considered applicable to this Patent Holder Statement-General. There are three categories of scopes, each being successively broader, of which one can be designated in this Patent Holder Statement-General. The narrowest scope is limited to a Reference Document, which can include all subparts of a multipart document or can be further limited to a specific subpart(s). In lieu of submittal of Patent Holder Statement-Specific for each subpart of a multipart Standard, such as TIA/EIA-136 or IS-2000 which has several subparts, it is acceptable to submit one statement provided that one selects Category A, provides the Reference Document Number, selects Multipart, and indicates ALL PARTS INCLUSIVE.

TIA's policy requires the submittal of a new Patent Holder Statement for each revision of a Standard. The scope of Category A can also be used to encompass all revisions of a document including subsequently published revisions. It is acceptable to submit one Patent Holder Statement-General for all subsequent revisions of a Standard provided that one selects Category A, provides the Reference Document Number, indicates Revision Designation, and indicates THIS REVISION & ALL SUBSEQUENT REVISIONS.

In the scope of Category A, it is acceptable for the submitter to mark both Multipart and Revision Number Designations. Please note that if you mark only multipart as an option, this option does not include future revisions of the document. If you mark revision designation as an option, and select "THIS REVISION & ALL SUBSEQUENT REVISIONS", then this is a designation for all subsequent revisions of the designated document, unless the Patent Holder modifies this Statement at a later date.

The next category of scope, Category B, is limited to an identified TIA Formulating Group, which can be designated by the numeric designation.

The broadest category of scope, Category C, is limited to the TIA in general, with specific designations to either (a) all TIA Formulating Groups in which the Patent Holder participates; or (b) any TIA Standard.

To the extent that varying degrees of scope are selected that result in a conflict (e.g. Category B and C marked) then the intent of the Patent Holder making the General Statement shall be construed to apply to the lesser, or more limited, scope category. (i.e. Category B)

Scope of Patent Holder Statement-General: (mark one category only):	SCOPE CATEGORY A <input type="checkbox"/> Reference Document Reference Document Number: _____ (can mark one or both of the following designations) <input type="checkbox"/> Multipart Designation a) <input type="checkbox"/> ALL PARTS INCLUSIVE (including subparts, addendum); OR b) <input type="checkbox"/> Specific subpart(s) ; Subpart designation(s) (e.g. .1, .2, .3) _____ <input type="checkbox"/> Revision Designation a) <input type="checkbox"/> THIS REVISION & ALL SUBSEQUENT REVISIONS ; OR b) <input type="checkbox"/> Specific revision (s); Revision designation(s) (e.g. A, B, C) _____
	SCOPE CATEGORY B <input type="checkbox"/> All Patent Holder Contributions to Designated TIA Formulating Group, as specified below: Formulating Group Designation Number (e.g. TR-45.2): _____
	SCOPE CATEGORY C <input type="checkbox"/> The TIA generally, as specified below: (check one only) <input type="checkbox"/> All TIA Formulating Groups in which Patent Holder participates; OR <input type="checkbox"/> Any TIA standard.

This Patent Holder Statement is located at http://www.tiaonline.org/standards/procedures/ipr/ipr_statement.cfm?form_type=general, and such form shall be used to submit Patent Holder Statements whether electronic or written. One form per Reference Document should be submitted, however, the Patent Holder Statement-General can be used for multipart Standards or other specific groupings of Reference Documents. If you do not know the Reference Document Number, please contact TIA Standards Secretariat at +1.703.907.7961.

‡ For definitions of terms used in this statement, please refer to TIA's Engineering Manual dated October 2009 located at <http://www.tiaonline.org/standards/procedures/manuals/engineering.cfm>

Date Statement Completed:	
Patent Holder Name:	
Patent Holder Mailing Address:	
Patent Holder Web Site: (optional)	
Name of IPR Contact Person:	
Title of IPR Contact Person:	
Submitter Name:	
Submitter Mailing Address (if different than listed above for Patent Holder):	
Telephone:	
Fax:	
Email:	

On behalf of the above Patent Holder, and being authorized by the Patent Holder to make such representations, the following is indicated:

With respect to any Essential Patent(s) relevant to the Standards which fall within the above indicated Scope:

(mark those Paragraphs below with an "X" that are applicable)

(1) The undersigned Patent Holder states:

___ It does not hold the rights to license any Essential Patent(s) necessary for the practice of any or all of the Normative portions of any Standards which fall within the above indicated Scope.

(2) The undersigned Patent Holder states one of the following:

___ a) A license under any Essential Patent(s), the license rights to which are held by the undersigned Patent Holder, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, without monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions of Standard(s) falling within the above indicated Scope for the field of use of the practice of said Standard(s);

OR

___ b) A license under any Essential Patent(s), the license rights to which are held by the undersigned Patent Holder, will be made available to all applicants under terms and conditions that are reasonable and non-discriminatory, which may include monetary compensation, and only to the extent necessary for the practice of any or all of the Normative portions Standard(s) falling within the above indicated Scope for the field of use of the practice of said Standard(s);

Either Paragraph (2a) or (2b), whichever is selected above, **may be modified** below by marking the following:

___ The commitment to license above selected will be made available only on a reciprocal basis. The term "reciprocal" means that the licensee is willing to license the licensor in compliance with either Paragraph (2a) or (2b) above as respects the practice of the Standard covered by the requested license.

The statements contained in Paragraphs (2a) or (2b), along with the modification, if selected above, are irrevocable as to all Reference Documents in existence prior to balloting and shall be binding upon the undersigned. In the event the rights of the undersigned in and to the Essential Patent(s) subject to such commitments are assigned or transferred, the undersigned shall notify the assignee or transferee of the existence of such commitments.

Notwithstanding the forgoing, the statements contained in Paragraphs (2a) or (2b), along with the modification, if selected above, may be amended or terminated upon notice in writing delivered to TIA as to any or all Reference Documents that have not yet been balloted.

If none of the above Paragraphs are marked, the undersigned Patent Holder states that it declines to make any commitments to license on the terms set forth in Paragraphs (1), (2a) or (2b) above.

Agreed on behalf of the above Patent Holder:

(Signature)

(Title)

(Name printed)

(Date)

ANNEX I – TIA SOFTWARE EVALUATION LICENSE

The undersigned (“Licensor”) hereby grants to the persons and/or companies listed on Exhibit A attached hereto (“Licensee”), a non-exclusive, compensation-free, limited license to evaluate the Software identified on Exhibit B attached hereto (“SOFTWARE”) upon the terms and conditions contained in this license, as follows:

1. The Licensee may use the SOFTWARE for the sole purpose of evaluating a draft or proposed standard being considered by a Formulating Group of the Telecommunications Industry Association (TIA) and identified as Reference Document: [insert Reference Document Number]
2. The SOFTWARE shall be held in confidence by the Licensee. Licensee shall not rent, lease, sell, sublicense, assign or otherwise disclose, transfer or dispose of the SOFTWARE to any third party, nor shall the SOFTWARE be distributed, published, copied, utilized, reproduced, or modified in any manner or in any medium; however, the Licensee shall be permitted to perform such acts as are necessary for the sole purpose of evaluation as herein provided.
3. THIS LICENSE IS GRANTED “AS IS” AND WITHOUT ANY WARRANTY WHATSOEVER. THE LICENSOR MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED INCLUDING, BUT NOT BY WAY OF LIMITATION, ANY WARRANTIES OR REPRESENTATIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN ADDITION, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THE LICENSOR MAKES NO REPRESENTATION THAT THE SOFTWARE WILL NOT INFRINGE ANY PATENT, COPYRIGHT, OR OTHER INTELLECTUAL PROPERTY RIGHT OF ANY THIRD PARTY.
4. The Licensee does hereby waive and release any claim by or reason of any matter whatsoever on account of, or arising from, or relating to the use of the SOFTWARE or any information furnished by the Licensor in connection therewith or with respect thereto.
5. Licensor shall not be liable for any incidental, indirect, special, exemplary or consequential loss or damages of any nature arising out of or in any way related to the use of the SOFTWARE.
6. No intellectual property rights to the SOFTWARE are transferred by virtue of this instrument.
7. The Licensee shall not release the results of any evaluation of the SOFTWARE to any third party without the prior written approval of the Licensor; provided, however, that the Licensee may disclose the results of such evaluation to the TIA Formulating Group for the purpose of evaluation of the SOFTWARE.

ACCEPTED AND AGREED TO:

(Signature)

(Signature)

(Name printed)

(Name printed)

(Title of Licensor)

(Title of Licensee)

(Date)

(Date)

ANNEX J – NUMBERING OF DOCUMENTS

TIA (only) Documents for Document Number 1234		
Project Number (PN)	Explanation	Published Standard Number
TIA-PN-1234	1 st (Letter) Ballot	TIA-1234-<year>
TIA-PN-1234-D1	1 st Default Ballot, subsequent default ballots are designated in a numerical, sequential manner (e.g., TIA-PN-1234-D2)	TIA-1234-<year>
TIA-PN-1234-R1	1 st Re-Ballot, subsequent re-ballots are designated in a numerical, sequential manner (e.g., TIA-PN-1234-R2)	TIA-1234-<year>
TIA-PN-1234-1	Addendum 1 to TIA-1234	TIA-1234-1-<year>
TIA-PN-1234-2	Addendum 2 to TIA-1234	TIA-1234-2-<year>
TIA-PN-1234-A	Revision 1 of TIA-1234	TIA-1234-A-<year>
TIA-PN-1234-B	Revision 2 of TIA-1234	TIA-1234-B-<year>
TIA-PN-1234-A-1	Addendum 1 to TIA-1234-A	TIA-1234-A-1-<year>
TIA-PN-1234-A-2	Addendum 2 to TIA-1234-A	TIA-1234-A-2-<year>
TIA-PN-1234-B-1	Addendum 1 to TIA-1234-B	TIA-1234-B-1-<year>
TIA-PN-1234-B-2	Addendum 2 to TIA-1234-B	TIA-1234-B-2-<year>
TIA-PN-1234-B-3 [E]	Enhanced Addendum 3 to TIA-1234-B (see Note 10)	TIA-1234-B-3 [E]-<year>
TIA-PN-1234.001	Part/chapter 1 of TIA-PN-TIA-1234	TIA-1234.001-<year>
TIA-PN-1234-RF1	1 st Re-affirmation of TIA-1234	TIA-1234-<year> (see note 1)

ANSI/TIA Documents for Document Number 1234		
Project Number (PN)	Explanation	Published Standard Number
ANSI/TIA-PN-1234	1 st (Letter) Ballot	ANSI/TIA-1234-<year>
ANSI/TIA-PN-1234-D1	1 st Default Ballot, subsequent default ballots are designated in a numerical, sequential manner (e.g., ANSI/TIA-PN-1234-D2)	ANSI/TIA-1234-<year>
ANSI/TIA-PN-1234-R1	1 st Re-Ballot, subsequent re-ballots are designated in a numeric, sequential manner (e.g., ANSI/TIA-PN-1234-R2)	ANSI/TIA-1234-<year>
ANSI/TIA-PN-1234-1	Addendum 1 to ANSI/TIA-1234	ANSI/TIA-1234-1-<year>
ANSI/TIA-PN-1234-2	Addendum 2 to ANSI/TIA-1234	ANSI/TIA-1234-2-<year>
ANSI/TIA-PN-1234-A	Revision 1 of ANSI/TIA-1234	ANSI/TIA-1234-A-<year>
ANSI/TIA-PN-1234-B	Revision 2 of ANSI/TIA-1234	ANSI/TIA-1234-B-<year>
ANSI/TIA-PN-1234-A-1	Addendum 1 to ANSI/TIA-1234-A	ANSI/TIA-1234-A-1-<year>
ANSI/TIA-PN-1234-A-2	Addendum 2 to ANSI/TIA-1234-A	ANSI/TIA-1234-A-2-<year>
ANSI/TIA-PN-1234-B-1	Addendum 1 to ANSI/TIA-1234-B	ANSI/TIA-1234-B-1-<year>
ANSI/TIA-PN-1234-B-2	Addendum 2 to ANSI/TIA-1234-B	ANSI/TIA-1234-B-2-<year>
ANSI/TIA-PN-1234.001	Part/chapter 001 of ANSI/TIA-PN-TIA-1234	ANSI/TIA-1234.001-<year>
ANSI/TIA-PN-1234-RF1	1 st Re-affirmation of ANSI/TIA-1234	ANSI/TIA-1234-<year> (see note 1)
ANSI/TIA-PN-1234-B-3 [E]	Enhanced Addendum 3 to ANSI/TIA-1234-B (see Note 10)	ANSI/TIA-1234-B-3 [E]-<year>

NOTES:

- 1) A published standard that is reaffirmed retains the original publication year in the “<year>” field. A separate notation on the cover page indicates the reaffirmation date.
- 2) When a published standard is revised, it incorporates all addenda from the previous revision, as well as any additional changes made by the committee. For example, if TIA-1234 has two (2) addenda (TIA-1234-1 and TIA-1234-2), TIA-1234-A includes content from the two addenda and any additional changes made by the committee.

- 3) A multi-part document standard has a core document standard against which chapters/parts are published. This core document has the suffix “.000” (e.g., TIA-1234.000). Each part can be balloted separately and revised separately; however, when any other part is updated, the core document (“.000” document) is also updated appropriately to reflect the changes made to the other part(s). (see also Note 5 below)
- 4) Published standards retain the assigned document number.
- 5) Standards added to a published (as of February 2011) series retain the assigned alphanumeric numbering (including dots and dashes) in that series. (e.g. the TIA-102 series standards retain the four-character, alphabetic extension for new Standards in the series rather than changing to the decimal/three digit extension).
- 6) All Standards have the same document number (e.g. 1234 in the tables above) throughout its lifecycle, from project inception through publication, addenda and updates.
- 7) Technical Standards Bulletins (TSBs) follow the same single-designation numbering for TIA (only) documents, except “TIA” is replaced with “TSB” in all instances.
- 8) Software distribution Standards include “[SF]” at the end of the Project Number and at the end of the Published Standard Number. (For example, TIA-PN-1234 [SF] / TIA-1234 [SF])
- 9) Project numbers for a Joint Standard (J-STD) follow the same single-designation numbering using “J-STD” in place of “TIA” in all instances. When another Standards Development organization is the lead developer, the alphanumeric numbering of that developer will be used (for example, Joint Standards where ATIS has the lead use a lower case alphabetic rather than numeric indicator for an addendum, e.g. the first addendum to the ATIS J-STD-101 is designated as J-STD-101a).
- 10) An enhanced addendum is an addendum created from the full text of the base document with the change marks shown.
- 11) Projects initiated prior to February 2011 keep their multiple designation numbers until the documents are published.