

# **IEEE SA Non-Standard Projects Style Manual**

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## Introduction

The IEEE SA Non-Standard Projects Style Manual (PDF) establishes preferred style for the preparation and structure of proposed non-standard documents. These include, but are not limited to, white papers, reports, and roadmaps.

The writers of a non-standard project are responsible for providing a complete, accurate submission that reflects the requirements set forth in this manual.

IEEE SA also provides a useful template available in Microsoft® Word.<sup>1</sup> Authors should use this template to ensure compliance with this manual and to speed up final production.<sup>2</sup>

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<sup>1</sup>Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries.

<sup>2</sup>Templates can be found within the downloadable files link at <https://standards.ieee.org/products-services/standards-related/whitepaper/index.html>.

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# IEEE SA Non-Standard Projects Style Manual

## 1. Overview

This manual establishes preferred style for the presentation and structure of proposed IEEE SA standard-related projects. A standard-related project might be a white paper, report, roadmap, or something else.

## 2. Helpful resources

The following documents are helpful resources for writing an IEEE SA document. Consult the most recent version of undated sources.

ANSI/IEEE Std 260.3™, American National Standard for Mathematical Signs and Symbols for Use in Physical Sciences and Technology. <sup>1</sup>

*IEEE Standards Related Products website: From handbooks and guides to bundles and mobile apps*  
<https://standards.ieee.org/products-services/standards-related/index.html>.

IEEE Std 260.1™, IEEE Standard Letter Symbols for Units of Measurement (SI Customary Inch-Pound Units, and Certain Other Units). <sup>2,3</sup>

IEEE Std 270™, IEEE Standard Definitions for Selected Quantities, Units, and Related Terms, with Special Attention to the International System (SI).

IEEE Std 315™, IEEE Standard Graphic Symbols for Electrical and Electronics Diagrams (Including Reference Designation Letters).

*The Chicago Manual of Style*. Chicago: The University of Chicago Press.

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<sup>1</sup>This publication, and other ANSI standards appearing in this clause, are available from The Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, NJ 08854, USA (<http://standards.ieee.org/>).

<sup>2</sup>IEEE publications are available from The Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, NJ 08854, USA (<http://standards.ieee.org/>).

<sup>3</sup>The IEEE standards or products referred to in this clause are trademarks of The Institute of Electrical and Electronics Engineers, Incorporated.

### 3. Using an IEEE SA template to write the paper

IEEE documents should be developed using an IEEE SA template, available in Microsoft® Word.<sup>4</sup> IEEE SA white papers and report templates and supporting documentation are available from the [Standards Related Products website](#).

The following three templates are currently available for white papers:

- a) [IEEE SA White Paper Template](#), which is a general template for all working group use.
- b) [IC Activity White Paper Template](#), which is for use when drafting a white paper for an Industry Connections Activity.
- c) [ICAP White Paper Template](#), which is for use when drafting a white paper for the IEEE Conformity Assessment Program.

A white paper shall meet the criteria defined in the [White Paper Criteria List](#). If the paper does not meet these criteria, please contact your IEEE Program Manager.

## 4. Author responsibilities

### 4.1 General responsibilities

All authors should

- Identify information taken from another source and obtain permission to reuse that material
- Ensure compliance with this manual
- Submit a complete, final draft of the document for production

### 4.2 Additional responsibilities of standards working group participants

Before embarking on developing a standard-related project, any standards working group participant must obtain approval from the entire working group to create a derivative work. It is the responsibility of the author (or authors) to provide accurate and complete information in the document.

## 5. Copyright and permissions

### 5.1 General copyright policy

Contributions to IEEE SA projects are subject to the IEEE SA copyright policy found in Clause [7](#) of the *IEEE SA Standards Board Bylaws* and [6.1](#) of the *IEEE SA Standards Board Operations Manual*.

Go to <http://standards.ieee.org/ipr/copyright.html> for additional information and FAQs on IEEE SA copyright policy.

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<sup>4</sup>Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries.

## 5.2 Excerpting material published by other organizations

Any participant who submits contributions from previously published sources shall comply with [7.2.1](#) of the *IEEE SA Standards Board Bylaws*. Note that information that can be accessed at no cost on the web and usually has copyright assertion as part of the webpage or Terms and Conditions of the website, even when a claim of copyright might not be shown on specific material.

Authors are encouraged to request permission from copyright owners as soon as the decision is made to include copyrighted material in a document. Permission letters shall be submitted to IEEE SA staff ([STDS-PERM-LTRS.ieee.org](mailto:STDS-PERM-LTRS.ieee.org)), along with the document, as part of the initial review. Receipt of permission letters is required before editing and production of the document.

If there are difficulties with obtaining permission, the author should consider referencing the material rather than including it.

IEEE permission form letters should be used when seeking permission. IEEE requests the following:

[N]on-exclusive, irrevocable, royalty-free permission to use this material is granted to IEEE for world rights distribution, with permission to modify and reprint in all future revisions and editions of the resulting document, and in derivative works based on this document, in all media known or hereinafter known.

If the copyright owner does not use the Response Form as is (i.e., if there are requested modifications to the form or another form is used), IEEE SA Intellectual Property Rights (IEEE SA IPR) ([stds-copyright@ieee.org](mailto:stds-copyright@ieee.org)) has to approve the permission response prior to incorporating the material in the IEEE document.

If specific permission other than what is contained in the Permission Request and Response Form Templates is needed, contact IEEE SA IPR.

See 9.4 for instructions on how to list permissions in the frontmatter.

## 6. Trademarks

Authors shall research the proper usage guidelines for any trademarks appropriate for their documents and ensure that no fees are required, limitations imposed, etc. This information is usually stated on the websites of the trademark owners. If used, any trademarked items shall be identified in the document and marked as either ® or ™, as appropriate, upon first reference. All trademarked items cited in the document shall be credited to the trademark owner in the introductory material of the paper. Note that there are restrictions on trademark use. See Clause 7.

## 7. Commercial terms and conditions

The IEEE SA policy on commercial terms and conditions is set forth in [6.2](#) of the *IEEE SA Standards Board Operations Manual*.

Citation of a product, service, or company shall be avoided. In those cases, where a sole source exists, the product, service, or company shall be described generically in text and the product, service or company supplied in a footnote accompanying the text, as follows:

At the time of this publication [product, service, or company] was an example of [name of generic product, etc.]. This information is given for the convenience of users of this document and does not constitute an endorsement by the IEEE of these products. Equivalent products may be used if they can be shown to lead to the same results.

If every effort has been made to substitute a generic word or phrase in text for the product, service, or company, but no suitable substitute can be found, add the following footnote to accompany the citation:

This information is given for the convenience of users of this document and does not constitute an endorsement by the IEEE of these products. Equivalent products may be used if they can be shown to lead to the same results.

In addition to the above footnote, within the text add “or the equivalent” after the name of the product, service, or company. For example,

“...use an ABC, or the equivalent, to monitor...”

## 8. Guidance regarding language used in an IEEE document

### 8.1 Homogeneity

Uniformity of structure, style, and terminology should be maintained within an IEEE document.

### 8.2 That and which

The words *that* and *which* are commonly misused; they are not interchangeable. *That* is best reserved in essential (or restrictive) clauses, *which* is appropriate in nonessential (or nonrestrictive) parenthetical clauses. Simply stated, if a comma can be inserted before the word *that* or *which*, the word should be *which*. If a comma would not be used, the word to use is *that*.

*Example:*

- a) Defining the inputs and outputs provides a better understanding of the steps *that* are necessary to complete the process.
- b) Defining the inputs and outputs provides a better understanding of these steps, *which* are explained later in this standard.

### 8.3 “Absolute” verbiage

Avoid making guarantees if there is a possibility of unforeseen situations or circumstances altering an outcome. Review the text for any explicit or implicit guarantees made within the document, especially those that are safety related.

For example, words such as “ensure,” “guarantee,” “always,” “maximize,” “minimize,” etc., should be modified if they are inaccurate. Substitutions might include “often,” “reduce,” or “improve.” For example, “to ensure safety” might be changed to “to improve safety” or “to prevent” might be changed to “to reduce.”

### 8.4 Use of the terms *safe* or *safety*

Avoid the use of the word *safe* unless the condition or practice referenced by the word *safe* has been tested under all cases as being, in fact, safe. Typically, this is not the case. Thus, unless it can be demonstrated that such condition or practice is safe, *safe* should not be used. Words such as *safer* or *safest* can be used in a relative context if it can be demonstrated to be the case. For example, it is proper to say that one set of

conditions or practices is safer than another, if in fact true, or that it is safer to employ a certain practice than not in a given situation. However, the term *safest* implies an absolute condition, which, in certain contexts, has the same implication as *safe* and, thus, should not be used. For example, *this is the safest set of conditions for using waveguide* is an improper usage.

The word *safety* should be avoided if it is being used to address a set of conditions or practices that have not been established for the purpose of promoting safety under all situations in which such conditions or practices will be employed. For example, the *following 10 safety considerations should be reviewed before implementing this practice* should not be used.

## 8.5 Inclusive language

IEEE SA uses language and terminology that is in compliance with the IEEE Nondiscrimination Policy <<https://www.ieee.org/about/corporate/governance/p9-26.html>>.

In addition to the IEEE Nondiscrimination Policy, on 3 December 2020, the IEEE SA Standard Board passed the following resolution:

*IEEE [documents] should be written in such a way as to avoid non-inclusive and insensitive terminology (see IEEE Policy 9.27) and other deprecated terminology (see Clause 8 of the IEEE SA Style Manual) except when required by safety, legal, regulatory, and other similar considerations. Terms such as master/slave, blacklist, and whitelist should be avoided.*

## 8.6 Use of personal pronouns

### 8.6.1 Personal pronouns

The use of personal pronouns should be avoided in IEEE SA documents.

The first-person form of address (*I, we*) or the second-person form of address (*you*) should not be used or implied, e.g., “You should avoid working on lines from which a shock or slip will tend to bring your body toward exposed wires.” This sentence should be rewritten as follows: “Technicians should avoid working on lines from which a shock or slip will tend to bring their bodies toward exposed wires.”

Similarly, third person singular pronouns should not be used, e.g., “He should turn the switch to the off position” should be rewritten as, “The worker should turn the switch to the off position” or “The switch should be turned to the off position.”

If a third person pronoun is needed (and it rarely is), the pronoun *they* should be used. The male or female pronoun alone or the variation *he/she/they* should not be used.

### 8.6.2 Indefinite pronouns

The indefinite pronoun *one* should be avoided. In references to an organization, the pronoun *it*, not *we* or *they*, should be used.

## 8.7 Gender-specific language

Avoid using words that are unnecessarily gender specific. Use generic titles and roles (chair rather than chairman, workers rather than workmen, etc.) in the standard.

## 9. Frontmatter of an IEEE SA document

### 9.1 General

All IEEE SA documents shall contain introductory material, which shall include the following:

- Title of paper
- Author
- Trademark and disclaimer statement

These sections are included in the IEEE SA templates or can be obtained by contacting the IEEE SA content publishing staff. *These shall not be altered.*

### 9.2 Copyright statement

The following information shall appear on every page of the document, at the bottom of the page:

Copyright © <20XX> IEEE. All rights reserved.

### 9.3 Introduction

An introduction should give the purpose of the paper and any history or background information that will be helpful to users.

### 9.4 Permissions list

Permissions shall be obtained for all material reprinted or excerpted from other sources. The list of permissions should appear in the document, under a flush left header titled, “Acknowledgments,” and formatted as shown below. This segment should appear after the Trademark and Disclaimers statement.

#### Acknowledgments

Permissions have been granted as follows:

Portions of this standard reprinted with permission from Avaya, IETF RFC 2108 Definitions of Managed Objects for IEEE 802.3 Repeater Devices using SMIV2, © 1997.

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NOTE—Requests for special acknowledgments that do not include permissions should be directed to the IEEE SA content publishing staff.

## 9.5 Table of contents

A table of contents listing the main sections (identified by one digit) and the first series of subsections under each section (identified by two digits) should be supplied. The table of contents should be generated automatically and should be frequently updated as the document evolves. Lists of tables and figures are not included in the table of contents.

## 10. Structuring the body of the document

### 10.1 Body sections

The body of a paper is usually divided into several major sections that are further divided into subsections. IEEE uses Arabic numerals in sequence. A subsection should be numbered by adding a decimal point and number to the section number (e.g., 5.1). Subsections may be divided into further subsections by adding a second decimal point and number (e.g., 5.1.1). Five numbers separated by decimal points is the maximum acceptable subdivision (e.g., 5.1.1.1.1). If necessary, the material should be reorganized to avoid subdivisions beyond this point.

Sections and subsections should be divided into further subsections only when there is more than one subsection. For example, Section 1 should not have a 1.1 unless there is also a 1.2.

All section and subsection headings should consist of a number and a concise, meaningful, title. Text immediately follows the subsection title, but on a new line. Hanging paragraphs (i.e., unnumbered paragraphs following a main section head or main subhead) should not be used since reference to the text would be ambiguous. It may be necessary to include a subhead with the title “General” to avoid instances of hanging paragraphs, as shown in **Error! Reference source not found.**

**Figure 1—Hanging paragraphs**

<p><b>4. Example of a hanging paragraph</b></p> <p>A hanging paragraph would follow the main section head. All text following this head is part of the section, including all the text within subsections, as reference to this paragraph would be ambiguous.</p> <p><b>4.1 Subsection head</b></p> <p>Subsection text.</p> <p><b>5. Hanging paragraph corrected</b></p> <p><b>5.1 Subsection head</b></p> <p>Text that is no longer a hanging paragraph.</p> <p><b>5.2 Subsection head</b></p> <p>Subsection text.</p>
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The term *Section* should be used when referring to major section headings (e.g., “see Section 5”) or at the beginning of a sentence. All other cross-references should be made by simply referring to the number (e.g., “see 5.1” not “see subsection 5.1”).

## 10.2 Numbering appendices

Consecutive capital letters and a title should be used to identify each appendix. Text should be organized and numbered as described in **Error! Reference source not found.**, with the following exception: section and subsection numbers should be prefaced with the identifying letter of the appendix, followed by a period (see the example appendix in **Error! Reference source not found.**). For standards containing only one appendix, the letter A should appear in its title and should preface the section and subsection numbers in the text. Figures and tables included in appendices should also carry the identifying letter of the appendix in which they appear, followed by a period. For example, the first figure in **Error! Reference source not found.** should be identified as Figure B.1.

## 10.3 Lists

Lists may be ordered or unordered. All lists shall be preceded by an introductory sentence explaining the relevance of the list. An ordered list should follow the format shown in Figure 2.

**Figure 2—Example of a tiered list**

- Items that are included on the nameplate include the following:

  - a) Name of the manufacturer
  - b) Rated frequency, if other than 60 Hz
  - c) Connection chart showing
    - 1) Full winding development
    - 2) Taps
    - 3) Pole and pocket location
  - d) Instruction book number
  - e) Mutual reactance (for linear coupler transformers)
  - f) Self-impedance (for linear coupler transformers)
    - 1) Resistance
    - 2) Reactance
    - 3) Impedance
      - i) For volts
      - ii) For amperes

Unordered lists should be bulleted as shown in the following:

- First unordered list item
- Second unordered list item
  - Third unordered list item

## 11. Quantities, units, and letter symbols

### 11.1 Quantity

The word *quantity* has many meanings; in this subsection, the word refers to physical quantities, which are described in units of measure such as length, mass, time, and temperature. A unit is a particular sample of a quantity, chosen so that an appropriate value may be specified. Meter, kilogram, hour, and degree Celsius are some of the units used for the four quantities noted previously.

The value of a quantity is generally expressed as the product of a number and a unit. Quantities and units may be represented in text by letter symbols and are always so represented in equations. If a number and unit cannot be identified for a quantity, the discussion may concern an amount rather than a quantity, in which case the term *amount* should be used.

### 11.2 Numbers

The following rules should be observed:

- a) The decimal marker should be a dot on the line (decimal point).
- b) For numbers of magnitude less than one, a zero should be placed in front of the decimal point (e.g., 0.5).
- c) In general text, isolated numbers less than 10 should be spelled out. However, in equations, tables, figures, and other display elements, Arabic numerals should be used.
- d) The value of a quantity shall be expressed by an Arabic numeral followed by a space and the appropriate unit name or symbol. An upright (Roman) type font should be used for the unit symbol even if the surrounding text uses a sloping (italic) font.
- e) If tolerances are provided, the unit shall be given with both the basic value and the tolerance (150 m  $\pm$  5 mm). Ranges should repeat the unit (e.g., 115 V to 125 V). Dashes should never be used because they can be misconstrued as subtraction signs.
- f) Percent is indicated by the sign (%) and directly follows the number, without a space.

### 11.3 Metric system

IEEE Policy 9.16 calls for measured and calculated values of quantities to be expressed in metric units [SI (Système International d'Unités)] in IEEE publications.<sup>5,6</sup> Inch-pound data may be included in parentheses after the metric unit if the author believes that the audience for this document would benefit from the inclusion of inch-pound data, based on concerns for safety or clarity. Metric units shall always be the primary unit of measurement.

*Exceptions:*

- a) A specific exception is given for trade sizes, such as the AWG wire series and inch-based standards for fasteners. Such data need not be translated into metric terms.

<sup>5</sup>For more information on IEEE policy, see <http://www.ieee.org/about/corporate/governance/index.html> and <https://standards.ieee.org/content/dam/ieee-standards/standards/web/governance/sasb/metric.pdf>.

<sup>6</sup>Additional information can be found <https://standards.ieee.org/content/dam/ieee-standards/standards/web/governance/revcom/sec14.pdf>.

- b) Also excepted are those cases, such as plugs and sockets, where a mechanical fit to an inch-based product is required.
- c) The metric policy does not require metric products to be substituted for inch-based products.

## 11.4 Letter symbols

In IEEE documents, letter symbols should be used rather than abbreviations. Letter symbols include symbols for physical quantities (quantity symbols) and symbols for the units in which those quantities are measured (unit symbols). The quantity and its unit can usually be separated by a non-breaking space to avoid unfortunate line breaks. Unlike common abbreviations, letter symbols are invariant in singular and plural, are not followed by a period, and maintain their case independent of the surrounding text.

For example, standard quantity symbols for length, mass, and time are *l*, *m*, *t*. They are set in *italic* letters. Unit symbols for the same three quantities are m, kg, and s, set in Roman (upright) letters. Note especially that V is the symbol for the unit “volt,” and *V* (italic) is the symbol for the quantity “voltage.” Unit symbols may not be used to stand for the quantity being measured, as follows:

*Incorrect:* “The km between the substations is 20.”

*Correct:* “The distance between the substations is 20 km.”

*Incorrect:* “The amperes that flow into the ground.”

*Correct:* “The current that flows into the ground.”

*Incorrect:* “Polarity shall be additive for all kVA transformers rated at 200.”

*Correct:* “Polarity shall be additive for all transformers with an apparent power rating of 200 kVA.”

## 12. Mathematical expressions

### 12.1 Letter symbols and units

Letter symbols defined in applicable IEEE standards (see Clause 2) should be used in preparing mathematical expressions.

All terms shall be defined, including both quantities and units, in a tabulation following the equation [see Equation (1)]. The list should be preceded by the word *where*, followed by the list of variables and corresponding definitions.

### 12.2 Numbering of equations

If the document contains more than one equation, then equations of key importance should be numbered consecutively in parentheses at the right margin. Derivations of equations or examples where values are substituted for variables need not be numbered.

An equation should be cited in the text by the word Equation and its number only [e.g., “see Equation (1)”]. If referring to two or more equations in the same sentence, each should be named separately. For example, use “see Equation (1), Equation (2), and Equation (3),” instead of “see Equations (1) through (3).”

### 12.3 Presentation of equations

Certain types of material in displayed equations are automatically italic. Some simple general rules apply. All variables are italic. (e.g.,  $x$ ,  $y$ ,  $n$ ). Function names and abbreviations are Roman (sin, cos, sinc, sinh), as are units or unit abbreviations (e.g., deg, Hz), complete words (e.g., in, out), and abbreviations of words (e.g., max, min), or acronyms (e.g., SNR). Single letter superscripts and subscripts may be italic even if they are abbreviations unless this leads to inconsistency between italic and roman characters for similar types of subscripts.

A multiplication sign ( $\times$ ), not the letter “x” or a multidot ( $\cdot$ ), should be used to indicate multiplication of numbers and numerical values, including those values with units (e.g., 3 cm  $\times$  4 cm).

Although the stacked style of fractions is preferred, exceptions should be made in text to avoid printing more than two lines of type. For example, in text  $a/b$  is preferable to  $\frac{a}{b}$ .

The general rules regarding the use of upright (Roman) and italic text in equations [see Equation (1)] are as follows:

- Quantity symbols (including the symbols for physical constants), subscripts, or superscripts representing symbols for quantities, mathematical variables, and indexes are set in italic text.
- Unit symbols, mathematical constants, mathematical functions, abbreviations, and numerals are set in upright (Roman) text.

*Example:*

$$E_0 = \frac{\sum_{i=1}^N E_i}{N} \quad (1)$$

where

- $E_0$  is the dc value of the waveform
- $N$  is the number of sample data in one period
- $E_i$  is the  $i^{\text{th}}$  sample data of the waveform

### 12.4 Quantity and numerical value equations

Equations shall be dimensionally correct. Equations may be in either quantity equation form or in numerical value equation form. Stipulation of units for substituted values in the variable list below the equation does not suffice to meet this requirement.

A quantity equation is valid regardless of the units used with the substituted values once any unit conversions and prefix scaling factors have been considered. For example,  $F = ma$  is always correct.

A numerical value equation depends on the use of particular units and prefixes. Such equations may be presented in one of two forms. One form represents a numerical relationship among quantities whose dimensions have been reduced to 1 due to division by the appropriate (prefixed) units. For example,

$$t/^{\circ}\text{C} = T/\text{K} - 273.15$$

The other form annotates the quantities with the units to be used. For example,

$$\{t\}_{^{\circ}\text{C}} = \{T\}_{\text{K}} - 273.15$$

## 13. Tables

### 13.1 Labeling and presentation of tables

Authors shall obtain permission to use any table from another source, including from a manufacturer, prior to using it in a draft document.

Formal tables should be given a number and a concise title, and they should be cited in the text with the word *Table* followed by the number. Tables should be boxed, ruled, and organized to fit on a single page. with the term, “Table” and the table number, followed by an em dash and the table title, all on one line, centered above the top border of the table, as follows: “Table 1—Title”. If a table carries over to more than one page, complete column headings should be repeated at the top of successive pages.

### 13.2 Numbering and capitalization in tables

Tables should be consecutively numbered in a separate series and in the order of their reference in the text (e.g., Table 1, Table 2, Table 3).

Tables should be referenced in the text by the word, “Table” and their number only (e.g., “see Table 1”). If referring to two or more tables in the same sentence, each should be named separately. For example, use “see Table 1, Table 2, and Table 3,” instead of “see Tables 1 through 3.” This enables accurate cross-referencing.

Only the initial letter of the first word and proper nouns should be capitalized in the following:

- Table titles
- Column and line headings in tables

### 13.3 Informal tables

Simple tabulations that are not referred to outside of the subsection in which they appear may be organized into short informal tables.

## 14. Figures

### 14.1 Requirements for creating figures

For best practices concerning the preparation of figures, see Table 1.

**Table 1—Figure preparation and requirements**

Characteristic	Requirements
Resolution	Black and white: 300 DPI Grayscale: 300 DPI Line art: 1200 DPI CMYK: 300 DPI
Size	Portrait page—maximum 8.5 in (H) × 6 in (W) Landscape page—maximum 6 in (H) × 9 in (W)
Color	For accessibility, color in figures shall not be required for proper interpretation of the information.
Line drawings	Save line art as black and white.
Line drawings with shaded areas	Save line drawings with shaded areas as grayscale.
Line weight	Lines should be of an adequate thickness, at least 0.5 points to 1.0 points. Hairline rules may appear broken up on screen or in printed document, or not show up at all.
Photographs	Save photographs as grayscale.
Fonts in graphics	All fonts shall be embedded into the figure. Calibri font is preferred. Preferred font size is 9 points (can be 8 or 10 points if needed).
Cropping	Each figure should be one image regardless of how many separate images make up the figure. There should be no borders around the graphic. Remove any excess white space around the image edges.
Original art	Original source files (from the graphics programs used) should also be submitted. The original art files should be grouped separately from those saved in the formats previously listed.

## 14.2 Figure numbering and titles

Figures should be numbered consecutively in a separate series and in the order of their reference in the text (e.g., Figure 1, Figure 2, Figure 3). Hyphenated numbers should not be used.

A figure should be referenced in the text by the word Figure and its number only (e.g., “see Figure 1”). If referring to two or more figures in the same sentence, each should be named separately. For example, use “see Figure 1, Figure 2, and Figure 3,” instead of “see Figures 1 through 3.” This enables accurate cross-referencing.

Only the initial letter of the first word and proper nouns should be capitalized in figure titles.

Figures should be given a number, a concise title, and cited in the text with the term, “Figure” followed by the number. Figures should be organized to fit on a single page with the term, “Figure” and the figure number, followed by an em dash and the figure title, centered below the figure, as follows: “Figure 1—Title”.

### 14.3 Figure permissions labeling

When a figure was reprinted with permission from another source, the following styles guidelines shall be followed:

*Crediting source.* Use either of the following credit lines:

Reprinted with permission from... (Use when the figure is taken from another source from which permission to reproduce has been obtained.)

Source: (Use when figure is taken from an IEEE standard.)

## 15. Citation list

### 15.1 General

The citation list shall always appear at the end of the document and list sources cited within the paper or additional sources that might be helpful to users.

The citation list should be ordered alphanumerically, without respect to the type of publication being cited.

### 15.2 Citation style for standards

Standards listed in the citation list shall include designation and title. They can be either dated or undated, whichever is appropriate to a particular entry.

*Example:*

[1] ASME BPVC-I-2004, Boiler and Pressure Vessel Code, Section 1—Power Boilers.

[2] Code of Federal Regulations Title 29 Part 1210 Section 354 (29CFR1210.354), Health and Safety Standards—Head injury.

[3] ISO/IEC 7498-4, Information processing systems—Open Systems Interconnection—Basic Reference Model—Part 4: Management framework.

### 15.3 Citation style for articles in periodicals

Consult *The Chicago Manual of Style*, current edition, for detailed information on how to list periodicals.

Articles listed shall include the following information in the order shown:

- a) Last name of author or authors and first name or initials, or name of organization
- b) Title of article in quotation marks
- c) Title of periodical in full and set in italics
- d) Volume, number, and, if available, part

- e) First and last pages of article
- f) Date of issue

*Example:*

[1] Boggs, S. A., and N. Fujimoto, “Techniques and instrumentation for measurement of transients in gas-insulated switchgear,” *IEEE Transactions on Electrical Installation*, vol. ET-19, no. 2, pp. 87–92, Apr. 1984.

## 15.4 Citation style for books

Consult the current *The Chicago Manual of Style* for detailed information on how to list books.

Books listed shall include the following information in the order shown:

- a) Last name of author or authors and first name or initials, or name of organization. Note that for a book with two or more authors, only the first-listed name is inverted in the bibliography entry.
- b) Title of book (in italics)
- c) Edition number (if applicable)
- d) Place of publication (city)
- e) Name of publisher
- f) Year of publication
- g) First and last page of reference

*Example:*

[26] Peck, R. B., W. E. Hanson, and T. H. Thornburn, *Foundation Engineering*, 2nd ed. New York: McGraw-Hill, 1972, pp. 230–292.

## 15.5 Other types of citations

For instructions on citing sources other than those listed in this subclause, refer to the current edition of *The Chicago Manual of Style*.