



SEMI[®] Standards Style Manual

Version 4.1
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1 Purpose

1.1 The Style Manual has been developed to provide authors the rules for creating SEMI standards.

NOTE 1: At the present time many published standards, guidelines, and safety guidelines do not conform fully to the style manual. These documents will be changed to conform as they are revised or reviewed in the normal five-year review cycle.

1.2 Standards are written to be used. Therefore, each standard should be:

- clear,
- concise,
- self consistent, and
- as complete and self contained as possible.

1.3 Use of a common format and style by all standards committees worldwide provides an enhanced corporate identity to SEMI standards and increases the recognition of these standards as a SEMI product.

2 Scope

2.1 The Style Manual contains information on the content and style of SEMI standards.

3 Referenced Standards and Documents

3.1 *ANSI¹/IEEE² Standards*

ANSI/IEEE 260.1 — IEEE Standard Letter Symbols for Units of Measurement (SI Units, Customary Inch-Pound Units, and Certain Other Units)

ANSI/IEEE 260.3 — American National Standard Mathematical Signs and Symbols for Use in Physical Sciences and Technology

ANSI/IEEE 280 — IEEE Standard Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering

3.2 *IEEE/ASTM³ Standard*

IEEE/ASTM SI-10 — American National Standard for Use of the International System of Units (SI): The Modern Metric System

3.3 *ASTM Standard*

ASTM Guide D 5127 — Standard Guide for Ultra Pure Water Used in the Electronics and Semiconductor Industry
ASTM Manual on Presentation of Data and Control Chart Analysis, sixth edition.

4 Formatting Rules

4.1 SEMI has created a Microsoft Word template that contains the styles used in all documents. The SEMI Standards Document Template is available on the SEMI web site; <http://www.semi.org/standards>. All documents are formatted in Microsoft Word and published as an Adobe Acrobat PDF file. See APPENDIX 1 for more information on applying the template styles.

1 American National Standards Institute, Headquarters: 1819 L Street, NW, Washington, DC 20036, USA. Telephone: 202.293.8020; Fax: 202.293.9287. New York Office: 11 West 42nd Street, New York, NY 10036, USA. Telephone: 212.642.4900; Fax: 212.398.0023; <http://www.ansi.org>

2 Institute of Electrical and Electronics Engineers, IEEE Operations Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, New Jersey 08855-1331, USA. Telephone: 732.981.0060; Fax: 732.981.1721; <http://www.ieee.org>

3 American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, USA. Telephone: 610.832.9585; Fax: 610.832.9555; <http://www.astm.org>

4.2 Page Layout and Document Formatting

4.2.1 See APPENDIX 1 as a quick reference for getting started with the SEMI Standards template. If the template is not available, see Table 1 for the official settings and formatting of the document.

Table 1 Page Layout and Document Formatting Rules

#	Format	Rule
4-1	<i>Document Page Setting</i>	(1) Paper Type: 8.5 in. by 11 in. (A4 210 mm by 297 mm) (2) Top Margin: 1 in. (25.4 mm) (3) Bottom Margin: 1 in. (43.0 mm) (4) Left Margin: 1 in. (25.4 mm) (5) Right Margin: 1 in. (19.5 mm) NOTE: In Microsoft Word, use the default gutter setting of 0 in. (0 mm) and the default header and footer distances of 0.5 in. (12.7 mm).
4-2	<i>Columns</i>	(1) Single Column NOTE: For improved appearance it may be necessary to hyphenate some words; use soft hyphens for this purpose.
4-3	<i>Width</i>	(1) 6.5 in. (165 mm)
4-4	<i>Justification</i>	(1) Full justification (2) List of exceptions: <ul style="list-style-type: none"> • Document, Appendix, and Related Information title • Table, table caption, table text • Figures, figure captions • Footnotes • Math equations
4-5	<i>Page Breaks</i>	(1) Page breaks are the only breaks allowed to be inserted into documents.
4-6	<i>Designation and Title</i>	(1) 14 pt Arial, bold, all uppercase. (2) 6 pt spacing above, 0 pt spacing below Designation, left aligned. (3) 0 pt spacing above, 10 pt spacing below title, left justified.
4-7	<i>First Level Section Headings</i>	(1) 10 pt Arial, bold, uppercase and lowercase, flush left. (2) Follow by a second level section heading on the next line.
4-8	<i>Second and Subsequent Level Section Headings</i>	(1) 10 pt Times New Roman, italic, uppercase and lowercase, flush left. (2) If text follows header, separate with a space, em dash, space. (3) If no text follows a section heading, then the text on the next line should begin with the next section using the next level paragraph numbering.
4-9	<i>Body of Text</i>	(1) 10 pt Times New Roman, uppercase and lowercase. (2) Avoid using all uppercase to emphasize special terms or words except for directions (see Table 5, Capitalization). Use single quotation marks for this purpose (see Table 4, Quotation Marks). (3) 6 pt spacing above and below each paragraph.

#	<i>Format</i>	<i>Rule</i>
4-10	<i>Paragraph Numbering</i>	<p>(1) Number each paragraph in the standard.</p> <p>(2) Use the style of numbering identified as “Outline Numbered”, without ending periods in Microsoft Word.</p> <p>(3) If possible, avoid using more than four levels of numbers.</p> <p>(4) Exceptions to Rule:</p> <ul style="list-style-type: none"> • Figures • Tables • Equations • Numbered lists • Notes • Bulleted lists* • Paragraphs which consist entirely of a direct quote from another source • Paragraphs which consist entirely of the designation number and title of a referenced standard • Notices <p>*If a paragraph is broken into two parts by a bulleted list, the second half of the paragraph should not be numbered.</p>
4-11	<i>Bullets and Numbering: Lists</i>	<p>(1) Separate lists from the surrounding text by indenting items and preceding them with bullets or numerals.</p> <p>(2) Use Arabic numerals, followed by periods, to list items for which the order is significant (e.g., a procedure which requires tasks to be completed in a particular sequence).</p> <p>(3) Numbered paragraphs should have no first line indent, a tab set at 0.25 in. (6.4 mm), and a hanging indent of 0.25 in. (6.4 mm).</p> <p>(4) Use bullets to list random-order items. The “Bullets & Numbering” feature in Microsoft Word will do this automatically.</p> <p>(5) For bullets, use a basic black circle. Microsoft Word has an appropriate symbol available in its “Bullets & Numbering” feature, under the “Bulleted” tab.</p> <p>(6) To avoid large amounts of space around the bullet, set the first-line indent to 0.05 in. (1.3 mm), the tab to 0.25 in. (6.4 mm), and the hanging indent to 0.2 in. (5.1 mm) in Microsoft Word.</p>
4-12	<i>Appendix Title Designation</i>	<p>(1) 14 pt Arial, bold, all uppercase, flush left.</p> <p>(2) 0 pt spacing above, 10 pt spacing below title.</p> <p>(3) Two Lines:</p> <ul style="list-style-type: none"> • “APPENDIX #”, where # is a sequential number. • Title of the appendix. <p>(4) See § 4-7 for First Level Section Headings. See § 4-8 for Second and Subsequent Level Section Headings. See § 4-9 for Body of Text.</p>
4-13	<i>Related Information Title Designation</i>	<p>(1) 14 pt Arial, bold, all uppercase, flush left.</p> <p>(2) 0 pt spacing above, 10 pt spacing below title.</p> <p>(3) Two Lines:</p> <ul style="list-style-type: none"> • “RELATED INFORMATION #”, where # is a sequential number. • Title of the related information. <p>(4) See § 4-7 for First Level Section Headings. See § 4-8 for Second and Subsequent Level Section Headings. See § 4-9 for Body of Text.</p>

#	<i>Format</i>	<i>Rule</i>
4-14	<i>Notes</i>	(1) 9 pt Times New Roman (2) Follow justification rule, except if Note is contained within a bulleted list. (3) Begin each note with “NOTE #” followed by a colon and two spaces. (4) Notes are numbered sequentially throughout the main document, appendix, and related information section(s), starting with 1. (5) Notes are not officially part of the standard. They are intended as supplementary information that is useful but not essential to the standard. Do not include information that is required to use in the standard.
4-15	<i>Footnotes</i>	(1) Reference footnote in text with a sequential number superscripted, starting with 1. (2) 8 pt Times New Roman, page bottom, left justified. (3) Footnotes are separated from main body of text by a 2-in. horizontal line. (4) Footnotes are numbered sequentially throughout the main document, appendix and related information section(s), starting with 1. (5) Footnote number is followed by 2 spaces. (6) Footnote number in reference area is not superscripted. (7) 0 pt spacing before, 2 pt spacing after each footnote.
4-16	<i>Notices</i>	(1) 10 pt Times New Roman, bold, all uppercase. (2) See Table 10 for reference.
4-17	<i>Quoted Material</i>	(1) When directly quoting material that is of sufficient length to merit placement in a separate paragraph, do not number the paragraph. (2) Indent the paragraph by 0.5 in. (12.7 mm) on both the left and right side margins.
4-18	<i>Copyrighted Material</i>	(1) Obtain written permission from the copyright owner before including quotations from copyrighted material, such as text or illustrations (<i>Regulations</i> , ¶ 4.3). (2) Submit a copy of the written permission along with the ballot draft so that it can be included in the ballot document file of the document information form.
4-19	<i>Attribution to Standards</i>	(1) List attributions in brackets (e.g., [SEMI S2]). (2) List only one standard (the most relevant).
4-20	<i>References to Standards</i>	(1) When referring to material found in another standard, use the full designation number of the standard (e.g., SEMI E5). (2) Make sure that the standard being referred to is included in the Referenced Standards and Documents section. (3) 10 pt Times New Roman for both the designation number and title of the standard. (4) Separate the designation number and title with a space, an em dash, and another space.
4-21	<i>References to Source Material not Listed in Referenced Standards and Documents Section</i>	(1) List titles and sources of periodicals, books, and web sites cited in the text of the document as footnote references at the bottom of the page where the citation first appears. See § 4-15 for formatting information. (2) Use bibliographic entries to reference books, articles, etc. Examples: 1 Heckathorn, Douglas D. “Collective Sanctions and Compliance Norms: A Formal Theory of Group-Mediated Social Control.” <i>American Sociological Review</i> 55 (1990): pp. 366–84. 2 Kurland, Philip B., and Ralph Lerner, eds. <i>The Founders’ Constitution</i> . Chicago: University of Chicago Press, 2000. (3) When listing a web site, reference the complete address and hyperlink (e.g., http://www.semi.org). “Web site” does not precede the URL.

#	Format	Rule
4-22	Cross References	<p>(1) When referencing a section, refer to the section using the section sign with a space after it, (e.g., see § 5). To find the symbol: Insert ► Symbol ► § (Section Sign).</p> <p>(2) When referring to a subsection/paragraph, use the paragraph sign with a space after it, (e.g., see ¶ 5.1). To find the symbol: Insert ► Symbol ► ¶ (Pilcrow Sign). If there is a listing of two subsections/paragraphs being referenced, use the paragraph sign before the first and second listing, (e.g., see ¶ 5.1 and ¶ 5.2). When there is more than two listings, use two paragraph signs with the first listing and none in the remaining list, (e.g., see ¶¶ 5.1, 5.2, and 5.2.1).</p> <p>(3) When referring to a subsection within the same document, refer to the paragraph by its designation by inserting its cross-reference link, with “¶” preceding the subsection number, (i.e., “¶ 5.1”).</p> <p>(4) If the document has more than one part and the section or object being referred to is in a different part of the document, specify which part of the document the section or object is in (e.g., “see ¶ #.# of the main body of this document,” “...in Figure A#-# in Appendix #”).</p> <p>(5) Insert cross-reference links for sections and objects referenced within the same document.</p> <p>(6) When possible, avoid starting a paragraph with § or ¶ symbols.</p> <p>(7) Creating Cross Reference Links in Microsoft Word:</p> <ul style="list-style-type: none"> • Click on Insert Menu • Choose Reference ► Cross Reference • In Cross-reference dialog box: <ol style="list-style-type: none"> 1) Reference Type: Select Numbered item from the dropdown menu. 2) Insert reference to: Select Paragraph number from the dropdown menu. 3) Click check box for Insert as hyperlink. 4) For which numbered item: Select section, table or figure being referenced • Click Insert.
4-23	Trademarks	<p>(1) Capitalization, spelling, and hyphenation are elements of a trademark. Conform to these elements explicitly when using the trademark.</p> <p>(2) Cite or identify a trademark the first time it is used. If it is federally registered, use a registered trademark ® symbol immediately behind the term (e.g., SEMI®). If it is a plain trademark, use ™ behind the term (e.g., Mega-Class™).</p> <p>(3) Use the trademark symbol (™) as modifiers to a generic product type (e.g., NanoSpec™ gauge).</p> <p>(4) Avoid the use of trademarks in standards wherever possible.</p> <p>(5) A trademark applies only to a company’s respective products; using a trademark as a noun threatens its legal standing as a unique product name. Therefore, do not use a trademark to refer to another company’s product unless the word has been accepted into the language as generic (e.g., do not refer to an Apple printer as a “LaserJet,” a HP product).</p> <p>(6) Some companies have trademarked the name of their company as well. These trademarks should be cited only when used to describe a product, not the company itself (e.g., “AT&T™ phone” would require a trademark citation, but “AT&T participated in the program” would not).</p> <p>(7) To reproduce another company’s logo, it may be necessary to (1) cite it as a registered trademark, (2) obtain written permission to use the logo, and (3) duplicate details such as colors, proportions, and isolation. For specific restrictions, contact the owner.</p>

#	Format	Rule
4-24	<i>Italics</i>	Use italics for the following: <ol style="list-style-type: none"> (1) All symbols for physical quantities that can have a numerical value, such as $a = l \times w$. (2) Letter in parentheses used to identify listings in text. (3) Titles of books. (4) Foreign words not commonly used in English, including “<i>et al.</i>,” meaning “and others,” “<i>loc. cit.</i>” meaning “in the place cited,” and “<i>ibid.</i>” meaning “in the same place.” (5) Transistor type or semiconductor conductivity type, as in <i>n-p-n</i>, <i>p-n-p</i>, <i>n-MOS</i>, <i>p-MOS</i>, <i>n-type</i>, or <i>p-type</i>. (6) Paragraph titles in first and lower level headings (see Table 1, First Level Section and Second and Subsequent Level Section Headings). (7) Words listed or defined in Terminology sections or Terminology standards (see Table 9, Terminology).
4-25	<i>Numerals</i>	<ol style="list-style-type: none"> (1) Use Arabic numerals in designating Figures, Notes, Tables, Appendix, and Related Information sections (e.g., Figure 14, Note 4, Table 6, Appendix 2, and Related Information 3). (2) Spell out all numbers from one through ten, with the following exceptions: <ul style="list-style-type: none"> • Use numerals when the quantity is partly fractional, as in 1.15, 1½. • Use numerals when followed by a standard unit symbol, as in 2 mm, 4 kg, or 9%. • If some numbers in a sentence are numerals (e.g., greater than ten), use numerals for all numbers in the sentence. (3) When a number begins a sentence, spell out the number. (4) It is not recommended to begin a sentence with a numeral followed by a unit symbol, but if this is essential, spell out both the number and the following unit symbol (e.g., One gram is usually sufficient). (5) Spell out round numbers, and associated unit symbols, used in an indefinite sense (e.g., The distance is a hundred meters or so). (6) Spell out numbers when there may be ambiguity resulting from two numbers adjacent to each other (e.g., fifteen 25 mm rods or 15 twenty-five millimeter rods). (7) If, for any reason, the standard abbreviation or unit symbol of the expression following a number is not used, or if the expression does not lend itself to abbreviation (e.g., year or ton), the use of numerals is optional, unless numerals are required by one of the following circumstances. (8) In contrasting statements, if some numbers must be numerals, use numerals for all (e.g., 2 tests and 16 weighings). (9) In a series of connected numerical statements implying precision, use numerals, as in “5 months, 3 days”. (10) Use numerals after abbreviations (e.g., Vol. 3). (11) Place a zero before a decimal point (e.g., 0.65 mm). (12) Write ratios as 1 to 10 or 1:10, not 1–10.
4-26	<i>Programming Language</i>	<ol style="list-style-type: none"> (1) 9 pt Courier (2) Single line spacing (3) Indents at 0.25 in. (6.4 mm) increments to show structure. (4) Should be set off from regular text by line breaks. (5) Should not be outline numbered. (6) Do not allow text wrapping in code. (7) May have a Figure Caption.
4-27	<i>Instructional Information</i>	<ol style="list-style-type: none"> (1) Text is italicized to indicate text/characters to be entered into the applicable field or table. (2) Text is bolded to indicate a menu option or which command keys should be used. (3) The symbol “▶” is used to indicate the steps in the menu to select.

4.3 Figure Formatting

4.3.1 Table 2 outlines the formatting rules for incorporating figures into a document.

Table 2 Figure Formatting Rules

#	<i>Format</i>	<i>Rule</i>
4-28	<i>Figures</i>	(1) 6.5 in. (165 mm) max width, 8.5 in. (mm) max height (2) Accepted formats: .BMP, .JPG, .PCT, or .TIF (3) CAD is accepted, but not encouraged. Ballots or other submissions that revise graphics created in CAD programs must include the revised graphics files. (4) Sequentially number all figures from beginning of document, starting with 1. (5) Restart numbering of figures at 1 in each appendix and related information section (e.g., Figure A1-1, Figure A2-1, Figure R1-1, etc.). (6) Black and white is preferred. Color is discouraged; but if used, it must be recognizable in black and white. (7) There can be no assurance that a figure will appear at a specific point in the document, it will be placed to minimize white space. (8) Insert figure into the document as a Microsoft Word Picture: <ul style="list-style-type: none"> • Insert ► Object • In the Object dialog box under Object Type, select Microsoft Word Picture • Click OK • Move figure so that it is aligned with the top and left lines of the picture box. • Adjust right and bottom margin arrows to fit the figure in the picture box.
4-29	<i>Figure Caption</i>	(1) 10 pt Times New Roman, centered, bold (2) Arabic integers (3) First line: The word “Figure” followed by sequential number and a manual line break. (4) Second line: Description using Title Case and no ending period (see Table 5, Capitalization). (5) See APPENDIX 2, Figure A2-5 for example.
4-30	<i>Figure Notes</i>	(1) 9 pt Times New Roman (2) Arabic integers (3) Centered above Figure Caption. (4) Start with word “NOTE:” for a single note or “NOTE #:” for multiple notes of same figure, and end note text with a period. (5) Restart numbering of figure caption notes at 1 for each figure. (6) See APPENDIX 2, Figure A2-6 for example.

4.4 Table Formatting

4.4.1 Table 3 outlines the formatting rules for incorporating tables into a document.

Table 3 Table Formatting Rules

#	<i>Format</i>	<i>Rule</i>
4-31	<i>Tables</i>	(1) 6.5 in. (165 mm) max width (2) If the table appears on more than one page, then table column headings should appear at the top of each page (Repeat Header function). (3) Left and Right cell margins should be 0.02 in. (0.5 mm). (4) Use of shading or color is not recommended. (5) There can be no assurance that a table will appear at a specific point in the document, it will be placed to minimize white space.
4-32	<i>Table Caption</i>	(1) 9 pt Arial, bold, flush left (2) Placed in an invisible cell at top of table. (3) Start with “Table #”, where the # is sequentially numbered from the beginning of the document, starting with 1. (4) Restart numbering of tables at 1 in each appendix and related information section (e.g., Table A1-1, Table A2-1, Table R1-1, etc.). (5) Place 2 spaces after number and before the title description. (6) Description using Title Case and no ending period (see Table 5, Capitalization).
4-33	<i>Table Column Headings</i>	(1) 9 pt Times New Roman, italic, centered (2) 6 pt spacing above text, 3 pt spacing below text. (3) Do not use powers of 10 in the column heading, since it is not clear whether the numbers in the table have been or should be multiplied by the power of ten. Instead, indicate the multiplication (e.g., 1.45×10^6) in the first entry in the table, or use an expression such as “ <i>Young's Modulus, millions of psi</i> ” in the column heading.
4-34	<i>Table Entries</i>	(1) 9 pt Times New Roman (2) 2 pt spacing above, 1 pt spacing below text. (3) Entries may be centered or left justified as appropriate for the nature of the entry and the appearance of the table.
4-35	<i>Table Notes</i>	(1) 8 pt Times New Roman (2) Arabic integers (3) Restart numbering of notes to tables for each table. (4) Note numbers are preceded by a # sign. (5) Note reference numbers within a table are superscripted. (6) Put notes under the table, sequentially. Numbering is not superscripted.

4.5 Punctuation

4.5.1 Table 4 outlines the rules for punctuation within a document. Information on English punctuation, including use of apostrophes and semicolons, may be found in the Handbook of Style at the end of *Merriam-Webster's Collegiate Dictionary*⁴.

Table 4 Punctuation Rules

#	Punctuation	Rule
4-36	<i>Comma (,)</i>	<ol style="list-style-type: none"> (1) Use a comma to separate two or more parts of a compound sentence joined by a conjunction such as “and” or “but,” but do not use a comma in place of the conjunction. (2) Use a comma to separate items in a list of items or options in text; use a comma before the word “and” or “or” when the word is placed before the last item in the list. (3) Use a comma to separate an initial clause from the remainder of a sentence. (4) Use a comma to separate multiple adjectives modifying the same noun (e.g., “low-power, CMOS circuits”).
4-37	<i>Colon (:)</i>	<ol style="list-style-type: none"> (1) Use colons to introduce lists with statement terms such as: follows, the following, for example, namely, that is....
4-38	<i>Ellipsis (...)</i>	<ol style="list-style-type: none"> (1) Show the intentional omission of quoted material. (2) Most word processing systems provide a special character for an ellipsis that is properly spaced and will not break at the end of a line. (3) When the ellipsis appears at the end of a sentence, place a period after the ellipsis.
4-39	<i>Parenthetical Expressions</i>	<ol style="list-style-type: none"> (1) Use opening and closing parentheses “()” to set off amplifying or explanatory comments in a sentence that have little logical relation to the remainder of the sentence. (2) If multiple comments need to be set off, use square brackets “[]” inside the parentheses or use parentheses inside opening and closing em dashes. (3) See Table 6, Parenthesis for the preferred order of parentheses and other “fences” in mathematical material.
4-40	<i>Quotation Marks (“ ”; double and ‘ ’; single)</i>	<ol style="list-style-type: none"> (1) Use opening and closing double quotes to enclose quoted material or to highlight a word or phrase in text. (2) Use opening and closing single quotes to enclose material inside a quotation enclosed in double quotes. (3) Place following commas or periods inside closing quotation marks, except when single quotes are used to set off special terms or when double quotes enclose data that are to be entered into a computer and a period or comma would be interpreted as part of the data. (4) When including multiple paragraph quotations in text, use an opening quote at the beginning of each paragraph and a closing quote at the end of the final paragraph. <p>NOTE: In most advanced word processing programs both opening and closing quotation marks (or “quotes”) can be entered using the same keystroke, frequently identified as “smart quotes.”</p>
4-41	<i>En Dash (–)</i>	<ol style="list-style-type: none"> (1) Use an en dash to indicate continuing or inclusive numbers, such as dates, times, or reference numbers (e.g., 1989–90 or 2–3 days). (2) Use an en dash in place of a hyphen in a compound word when one of the components contains a hyphen or consists of two words. (3) Optionally, use an en dash instead of a hyphen when joining two words that are set in uppercase letters.

⁴ Merriam-Webster's Collegiate Dictionary, Merriam-Webster Incorporated, Springfield, MA, USA. Telephone: 413.734.3134 x100; Fax: 413.731.5979; <http://www.m-w.com>

#	<i>Punctuation</i>	<i>Rule</i>
4-42	<i>Em Dash (—)</i>	<p>(1) Use an em dash, singly or in pairs, to indicate a break in thought that causes an abrupt change in sentence structure as suggested in the following example: “‘The project will end January 15—unless the company provides additional funds.’”</p> <p>(2) Use an em dash to separate a term from its definition in a terminology list.</p> <p>(3) Use an em dash with a space before and after, to separate a standard number or designation from its title in the Referenced Documents and Related Documents sections.</p> <p>(4) Use an em dash to separate paragraph headings from text.</p>
4-43	<i>Hyphen (-)</i>	<p>(1) When words must be split across two lines to maintain a pleasing appearance, hyphenate in accordance with the following rules:</p> <ul style="list-style-type: none"> • Divide words at syllabic breaks, which are listed in the dictionary’s pronunciation key. • Do not divide legally protected names such as SEMATECH. • Do not leave fewer than three letters together on each of the two lines. <p>(2) Use hyphens to form a compound adjective (e.g., high-pressure service, high-volume, cost-competitive semiconductors).</p> <p>(3) For the sake of appearance, omit hyphens in such expressions as “3% nickel alloy” or “3°C rise in temperature.”</p> <p>(4) Do not hyphenate chemical compounds or the words “stainless steel” and “cast iron.”</p> <p>(5) Do not use hyphens between adverb-adjective combinations in which the adverb ends with “ly” (e.g., “highly sensitive material” or “optimally focused lens”).</p> <p>(6) Use a hyphen between parts of certain compound words and some prefixes for words to reduce confusion or make them easier to read (e.g., “re-cover,” meaning to replace the cover (as opposed to “recover” as from an illness or setback), “burn-in,” “p-n junction,” and “non-deposition phase”).</p> <p>(7) Use a hyphen to add a prefix to a proper, but not legally protected, noun (e.g., post-Vietnam era or mid-January time frame).</p> <p>(8) Use a hyphen to show the relationship between the first term or prefix for a compound adjective that must temporarily stand alone (e.g., “one- or two-page description” or “high- and low-temperature tests”), but when using numerals, omit all but the last hyphen (e.g., “2, 4, and 6-inch specimens”).</p> <p>(9) Use a soft hyphen (also known as a manual break) to break a word at the end of a line; hard hyphens are “permanent” hyphens (e.g., twenty-first) and must remain no matter where the hyphenated word or term appears.</p>

4.6 Grammar and Language

4.6.1 Table 5 outlines the rules for grammar and language within a document. For information on grammar and language not specifically addressed in this document, refer to the *Chicago Manual of Style*⁵.

Table 5 Grammar & Language Rules

#	Grammar/Language	Rule
4-44	<i>Official Language</i>	(1) American English is the official language of all SEMI Standards approved by the consensus procedures outlined in ¶ 4.5 of the Regulations.
4-45	<i>Simple Language</i>	(1) SEMI Standards should be written so that they are easy to understand, use, and translate. (2) Avoid excessively long sentences. Break longer sentences into two shorter sentences if possible. (3) Avoid double negatives. (4) Avoid slang terms and other idiomatic or culture-specific expressions.
4-46	<i>Future Tense</i>	(1) Future tense technical writing is usually a weak substitute for a simple declarative statement. (2) Do not use future tense (“will”) in the text of standards and guidelines unless a future consequence of a specific action is being described. (3) Instead, for most cases, use a simple declarative sentence (present tense).
4-47	<i>Paragraphs That Contain Requirements</i>	(1) A paragraph should contain only one requirement. Paragraphs that contain more than one requirement should be broken into smaller paragraphs that each contains only one requirement.
4-48	<i>Should and Shall</i>	(1) Use “shall” to indicate an instruction or occurrence that is required. Note that “shall” is preferred to “must” for this purpose. (2) Use “should” to indicate an instruction or occurrence that is desirable but not required. (3) Do not use “shall” (or “must”) in guides and guidelines. Instead use “should” because these types of documents are advisory in nature and are not written as requirements. (4) Use “shall” for all required elements of specifications, test methods, practices, and similar standards; use “should” in these types of standards only in notes or related information sections. (5) If “should” seems more appropriate in a specification, test method, or practice, write the standard as a guide instead.
4-49	<i>Spelling of English Words</i>	(1) American English is the preferred spelling method. (2) Spell check the document before submitting it for review and balloting. Be aware, however, that this may not catch all errors. A final visual proof before submission is essential. (3) Use the currently available <i>Merriam Webster’s Collegiate Dictionary</i> for the accepted spellings and definitions of most English terms. (4) Check <i>Webster’s Third New International Dictionary</i> ⁶ for words not included in the collegiate edition. (5) For accepted technical terminology, suggested references include the SEMI Compilation of Terms, ⁷ the Compilation of ASTM Standard Definitions, ⁸ the IEEE Standard Dictionary of Electrical and Electronic Terms, ⁹ and the SEAJ Japanese-English dictionaries of terms for integrated circuit and flat panel display technologies. ¹⁰ (6) Refer to APPENDIX 6 for spellings that (1) differ from the spelling in Merriam Webster’s Collegiate Dictionary, (2) are not clearly indicated as preferred in that dictionary, (3) do not appear in that dictionary, or (4) do appear in that dictionary, but are listed here for convenience.

⁵ Chicago Manual of Style, The University of Chicago Press, 1427 E. 60th Street, Chicago, IL 60637, USA. Telephone: 773.702.7700; Fax: 773.702.9756; <http://www.chicagomanualofstyle.org>

#	Grammar/Language	Rule
4-50	<i>Capitalization</i>	<p>(1) For all section headings, table titles, and figure titles, capitalize all nouns, pronouns, verbs, adjectives, adverbs, and all other words of five letters or more. This form is sometimes called Title Case.</p> <p>(2) Avoid using a string of uppercase letters except for acronyms (see Table 8, Terminology), for directions in a procedure as noted below, or to introduce a caution or warning notice in the text (see Table 10, Cautions and Warnings).</p> <p>(3) Use title case for “committee” only when it is used as the title of a specific group, as in “Gases Committee”.</p> <p>(4) Use title case when it is a proper noun or customarily capitalized.</p> <p>(5) Capitalize trademarks and service marks unless the word has been accepted into the language as generic. More information on trademarks and service marks is available through the United States Patent and Trademark Office¹¹.</p> <p>(6) Use title case when referring to specific volumes, figures, tables, etc. as in Figure # and Table #.</p> <p>(7) Use capital letters in such expressions as Test #, Specimen X, Cement X, Type #, Class X, Grade X, etc.</p> <p>(8) Use an uppercase letter for certain items consisting of one letter such as “O-ring,” “V-groove,” “V-notch,” “X ray” (<i>n</i>), and “X-ray” (<i>adj</i> or <i>v</i>).</p> <p>(9) Use all uppercase letters for emphasis within directions such as “Turn the knob to the OFF position” or “Turn the dial to TITRATE.”</p> <p>(10) Using a mix of uppercase and lowercase letters within a word is acceptable when it is required to accurately refer to a type of information, such as a variable name or an enumerated information string.</p>

4.7 Mathematical & Technical Material

4.7.1 Table 6 outlines formatting rules for the mathematical and technical material within a document.

Table 6 Mathematical & Technical Material Rules

#	Names	Rule
4-51	<i>Isotopes</i>	(1) Designate isotopes of elements either with the atomic mass following the element name, separated by a hyphen, or as a superscript preceding the chemical symbol (e.g., carbon-14 or ¹⁴ C).
4-52	<i>Polymers</i>	<p>(1) Where the name of the monomer is one word, add the prefix poly without hyphen or space, as in polystyrene or polyisobutylene.</p> <p>(2) Where the name of the monomer is two words, enclose the monomer in parentheses and add the prefix poly without hyphen or space, as in poly(vinyl chloride) or poly(methyl methacrylate).</p> <p>(3) Use chemical names consistent with those established by the IUPAC.</p>

6 Webster’s Third New International Dictionary, Unabridged, Merriam-Webster Incorporated, Springfield, MA, USA. Telephone: 413.734.3134 x100; Fax: 413.731.5979; <http://www.m-w.com>

7 Available on the SEMI Web site: http://wps2a.semi.org/wps/portal/_page/118/_page.118/755.

8 *Annual Book of ASTM Standards*, Vol. 00.01, ASTM, 100 Barr Harbor Drive, West Conshohocken, PA, 19428 USA. Fax: 610.832.9555; http://www.astm.org/cgi-bin/SoftCart.exe/BOOKSTORE/BOS/ORDER_OPTIONS/0407.htm?L+mystore+zhuu8615

9 IEEE, 445 Hoes Lane, P. O. Box 1331, Piscataway, NJ 08855-1331, USA. Fax: 732.562.6380; <http://www.ieee.org>

10 Semiconductor Equipment Association of Japan, 4 F, Grand Maison Shinjuku Gyoen, 7-10, 1-chome, Shinjuku, Shinjuku-ku, Tokyo, 160-0022, Japan. Fax: 81.3.3353.7970; <http://www.seaj.or.jp>

11 United States Patent and Trademark Office, Crystal Plaza 3, Room 2C02, Washington DC, 20231 USA. Telephone: 800.786.9199; <http://www.uspto.gov>

#	Names	Rule
4-53	<i>Crystal Planes and Directions</i>	<p>(1) Use the following symbols for crystallographic planes and directions:</p> <ul style="list-style-type: none"> • plane (111) • family of planes {111} • direction [111] • family of directions <111> <p>(2) Use a bar over the 1 to indicate negative directions (e.g., $\bar{1}\bar{1}\bar{1}$).</p> <p>* In Microsoft Word, this symbol can be obtained only by using the Equation Editor. It may be necessary to adjust character spacing (in text mode of the editor) to separate the bars over adjacent symbols.</p>
4-54	<i>Decimal Point</i>	<p>(1) Use a period, not a comma, for the decimal point (e.g., 0.65, not 0,65).</p> <p>(2) Use a comma to separate groups of three numerals in large numbers (e.g., 1,000,000 for one million, and 1,000 for one thousand).</p> <p>(3) See Table 1, Numerals for additional information.</p>
4-55	<i>Equations</i>	<p>(1) Center equations in the text.</p> <p>(2) If there are two or more equations, number them with a flush right number in parentheses. In Microsoft Word, this may be done by using a right tab on the right margin.</p> <p>(3) Each equation is numbered consecutively starting with (1). In Appendix and Related Information equations are numbered consecutively starting with (A#-1) and (R#-1).</p>
4-56	<i>Exponents to the Base e</i>	<p>(1) If an exponent to the base e is relatively short and on one line, without superscripts or subscripts, use the symbol “e,” (e.g., $e^{(a-b)cx}$).</p> <p>(2) If an exponent to the base e is relatively long or has superscripts or subscripts, use the symbol “exp,” (e.g., $\exp[x_b^{1/2} - \ln(x_b/a)]$).</p>
4-57	<i>Fractions</i>	<p>Use the following guides when deciding whether to use available symbols, a solidus (diagonal line: /), or a built-up fraction (with a horizontal line).</p> <p>(1) Type simple numerical fractions in the text with available symbols such as $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{8}$, $\frac{5}{8}$, etc.</p> <p>(2) Use the solidus in other simple mathematical expressions in the text. Use parentheses liberally to clarify ambiguities within mathematical material. For example: “log (a/b)” and “(log a)/b” are both clear, but “log a/b” is not.</p> <p>(3) Use a built-up fraction if an expression is so long as to make use of the solidus awkward and difficult to read.</p>
4-58	<i>Letter Symbols</i>	<p>(1) Use symbols for physical quantities in equations that are consistent with those prescribed in ANSI/IEEE 260.1, 260.3 and 280; make sure that symbols used are consistent throughout the standard (and related SEMI standards), regardless of the units employed.</p> <p>(2) Use of certain uppercase Greek letters is discouraged because of possible confusion between them and uppercase English letters, especially alpha (A) and A, beta (B) and B, epsilon (E) and E, zeta (Z) and Z, eta (H) and H, iota (I) and I, kappa (K) and K, mu (M) and M, nu (N) and N, omicron (O) and O, rho (P) and P, tau (T) and T, and chi (X) and X.</p>

#	Names	Rule
4-59	<i>Mathematical Operators</i>	(1) Except when using the solidus in fractions, mathematical operators (e.g., +, −, ×, /, =) should always be surrounded by non-breaking spaces when used in equations. (2) Use the proper power of 10 instead of “E” notation (e.g., use 5×10^{14} instead of 5E14). (3) To represent multiplication, use × (multiplication symbol) instead of * (asterisk) or the letter x. (4) To represent magnification, use × (multiplication symbol) instead of the letter x. (5) Use a superscript exponent instead of ^ (carat), (e.g., use 10^{15} instead of $10^{^15}$). (6) To represent subtraction, use − (minus sign) instead of - (hyphen). (7) To represent plus-minus, use ± (plus-over-minus sign) instead of +− (a plus sign followed by a minus sign), or +/- (a plus sign followed by a solidus followed by a minus sign). (8) Math symbols that cannot be entered through a keyboard can be located in the symbols dropdown menu of the Standards Template or under Insert ► Symbol...
4-60	<i>Parentheses</i>	(1) Use parentheses to clarify ambiguities in mathematical expressions. The preferred order for enclosure (“fence”) symbols is braces, square brackets, and parentheses as follows: $\{ [()] \}$ (2) If additional enclosures are needed use larger symbols in the same order, as follow: $\{ [([([()])])] \}$ (3) Do not use angle brackets (< >), vertical bars (), or double bars (), as enclosure symbols because these symbols have other meanings in mathematical material. (4) See Table 4, Parenthetical Expressions for additional uses.
4-61	<i>Statistical Data</i>	(1) To present the essential information contained in a set of observations from one population, give the average, the sample standard deviation or coefficient of variation, and the number of observations. (2) Use the following symbols where needed: <ul style="list-style-type: none"> • \bar{x} = average (sample mean) • s = sample standard deviation • v = coefficient of variation • n = number of observations (3) For data that are treated statistically, follow the recommendations in the ASTM Manual on Presentation of Data and Control Chart Analysis, sixth edition
4-62	<i>Variables</i>	(1) Use lower case italics to indicate variables (e.g., $ax^2 + bx + c = 0$).
4-63	<i>Unit Symbols</i>	(1) Use accepted SI unit symbols and abbreviations. Refer to IEEE/ASTM SI-10 or a similar standard for detailed information on SI units. (2) Use unit symbols after numbers denoting a definite quantity. (3) Always leave a space between a numeral and a unit symbol (e.g., 200 mm or 0.35 μm), except for the following symbols, all of which follow the numeral without a space: <ul style="list-style-type: none"> • % (percent) • " (inch or angular second) • ' (angular minute) • ° (angular degree) • °C (degree, Celsius) • °F (degree, Fahrenheit) (4) Use unit symbols in the singular only (e.g., designate fifty kilograms as 50 kg, not 50 kgs). (5) When two symbols are placed next to each other, separate them with a center dot (e.g., $\text{cm}^2/\text{v}\cdot\text{s}$ or $(\Omega\cdot\text{cm})$). (6) The International Committee on Weights and Measures has adopted standard prefixes for denoting multiples and submultiples of SI units (see IEEE/ASTM SI-10).

5 Sections Found in Standards and Safety Guidelines

5.1 Different kinds of SEMI standards include different sections according to the purpose of the standard. Table 7 lists sections that are mandatory (M) or optional (O) in each type of standard and safety guideline. This list is not restrictive; other sections may be included in appropriate locations to meet the requirements of specific documents.

Table 7 Section Contents

#	Standard Types/Sections	Classification	Guide	Practices	Specifications	Terminology	Test Methods	Safety Guidelines
5-1	<i>Purpose</i>	M	M	M	M	M	M	M
5-2	<i>Scope</i>	M	M	M	M	M	M	M
5-3	<i>Limitations</i>	O	O	O	O	O	O	O
5-4	<i>Referenced Standards and Documents</i>	M	M	M	M	M	M	M
5-5	<i>Terminology</i>	O	O	O	O	O	O	O
5-6	<i>Related Documents</i>	O	O	O	O	O	O	O
5-7	<i>Basis of Classification</i>	M						
5-8	<i>Classification</i>	M						
5-9	<i>Test Methods</i>	O			M			
5-10	<i>Application Specific</i>		M					M
5-11	<i>Summary of Practice</i>			M				
5-12	<i>Apparatus</i>			O			O	
5-13	<i>Reagents and Materials</i>			O			O	
5-14	<i>Safety Precautions</i>			O			O	
5-15	<i>Test Specimens</i>			O			O	
5-16	<i>Procedure</i>			M			M	
5-17	<i>Calculations</i>						M	
5-18	<i>Interpretation of Results</i>			O				
5-19	<i>Report</i>			O			M	
5-20	<i>Ordering Information</i>				M			
5-21	<i>Requirements</i>				M			
5-22	<i>Sampling</i>				O			
5-23	<i>Certification</i>				O			
5-24	<i>Product Labeling</i>				O			
5-25	<i>Packing and Package Labeling</i>				O			
5-26	<i>Abbreviations and Acronyms</i>					O		
5-27	<i>Definitions</i>					O		
5-28	<i>Symbols</i>					O		
5-29	<i>Summary of Test Method</i>						M	
5-30	<i>Preparation of Apparatus</i>						O	
5-31	<i>Calibration and Standardization</i>						O	
5-32	<i>Precision and Bias</i>						O	

5.2 Table 8 describes the content of each section found within Standards and Safety Guidelines.

Table 8 Descriptions of Sections Found in Standards and Safety Guidelines

#	<i>Sections</i>	<i>Description</i>
5-33	<i>Title</i>	(1) Every standard and safety guideline must have a title. (2) Select a unique title that describes the content of the standard or safety guideline. (3) Do not use the word “Standard” in the title. (4) Place the type of ballot action (New Standard, Revision of, Reapproval of, or Withdrawal of) before the title. (5) Begin the title with the type of standard or guideline being developed (e.g., Specification for ..., Guide for ..., Test Method for ..., Safety Guideline for ..., Draft Specification for ..., Preliminary Test Method for ..., Interim Specification for ...). (6) Use only a single type of standard except in very unusual circumstances. If the document is comprised of two types (e.g., Specification and Guide for ...), the text must clearly identify those parts which are of each type.
5-34	<i>Purpose</i>	(1) Every standard and safety guideline must have a Purpose section. (2) Provide a concise explanation of the significance and application of the standard. (3) Indicate the intended user and the proper application of the standard. (4) If appropriate, differentiate this standard from other similar or related standards.
5-35	<i>Scope</i>	(1) Every standard and safety guideline must have a Scope section. (2) State the function and range of application of the standard. Note any excluded functions or ranges, if appropriate. (3) List the materials, products, systems, or services covered by the standard. (4) State the units of measure employed by the standard only if SI units are not the primary units. (5) If any specific caution or warning notices are included in the standard or safety guideline, list the paragraph numbers where they occur in the last sentence of the appropriate paragraph (see Table 10, Cautions and Warnings). (6) Safety Notice is mandatory for all SEMI Standards (see Table 10, Scope Notice).
5-36	<i>Limitations</i>	(1) State any items not specifically covered in the standard. (2) For test methods and practices, include all known items that may cause erroneous results to be obtained. (3) For each such item, describe how the existence of the problem can be identified and measures to be taken to circumvent the problem.

#	Sections	Description
5-37	<i>Referenced Standards and Documents</i>	<ol style="list-style-type: none"> (1) References to publicly available standards must include a Referenced Standards and Documents section. (2) List all publicly available standards that are cited in the standard or safety guideline and published by SEMI or another recognized standards development organization (SDO) such as ANSI, ASTM, DIN, IEC, ISO, JSA. (3) List SEMI standards first, in alphanumeric order by designation. (4) List standards published by other SDOs using a separate subsection for each organization. Place these subsections in alphabetical order by the name of the organization. List the standards in each subsection in alphanumeric order by designation. (5) Do not include the publication date (month-year) code unless only a specific edition of the cited standard must be employed. (6) <i>Documents</i> — List all regulations, codes, and similar types of nonstandard technical documents cited in the standard or safety guideline. Exclude from listing technical books, magazines and magazine articles and journal and journal articles. (7) For all cited standards and technical documents not originating from SEMI, provide a footnote referencing the source of the standard and the address from which a copy can be obtained. When available, also list fax and web site information of the organization that distributes the standard. (8) Be sure to list only published standards. Never refer to draft documents being developed by SEMI or any other SDO in this section (or elsewhere in the standard). NOTE: If it is necessary to reference a draft standard under development, allude to the material by a descriptive phrase, not necessarily the title. Include a note to the effect that the standard (provisional standard, safety guideline, etc.) covering the topic is being developed by a SEMI standards committee which can be identified. (9) References to periodicals, books, and web sites cited in the standard should be listed as numbered footnotes at the bottom of the page that the reference first occurs. Cite only publicly available references in a SEMI standard. ^{#1} (10) Appendix and Related Information shall have their own Referenced Standards and Documents section, separate from the main document. (11) Referenced Standards and Document Notice is mandatory (see Table 10, Referenced Standards and Documents).
5-38	<i>Terminology</i>	<ol style="list-style-type: none"> (1) Terminology is an important part of most standards. However, in some cases, terminology for a given field is collected together in a terminology standard. Terminology includes abbreviations and acronyms, definitions, and symbols. (2) List abbreviations and acronyms, definitions, and symbols in alphabetical order in separate subsections. If desired, further divide one or more of these subsections so that related terms are grouped before alphabetizing. In rare occasions, groups of related terms may be ordered non-alphabetically (e.g., a group of terms related to a particular subject might start with the definition of the subject itself). (3) Include a paragraph number for individual entries of abbreviations, acronyms, definitions, or symbols in this section. (4) If all entries are included in a single alphabetical list, use a second level paragraph number (e.g., x.y, as shown in Table 1, Second and Subsequent Level Section Headings). (5) If subsections (e.g., abbreviations and acronyms, definitions, or symbols) are used, use a third level paragraph number (e.g., x.y.z). (6) If these subsections are further divided into groups of related entries, use a fourth level paragraph number (e.g., x.y.z.w).

#	Sections	Description
5-39	<i>Abbreviations and Acronyms</i>	<p>(1) Before including an entry in this section, check to determine if the item is included in the SEMI Compilation of Terms, available on the SEMI web site; http://www.semi.org/standards. Make sure that all entries taken from the Compilation of Terms exactly match the original entries in the compilation itself.</p> <p>(2) List descriptions of abbreviations and acronyms commonly used in the field.</p> <p>(3) If a standard or safety guideline contains a large number of abbreviations and/or acronyms, group them together in the <i>Terminology</i> section.</p> <p>(4) List abbreviations and acronyms in alphabetical or alphanumeric order unless there is a compelling reason to order them differently; if desired, divide the list into numbered subsections so that related items are grouped before alphabetizing.</p> <p>(5) For clarification or tutorial discussion, a discussion paragraph may be added on a separate line following the entry.</p> <p>(6) List each entry (in italics, capitalized as it appears in the document), followed by a space, an em dash (—), another space, and the full name or term. If needed for clarification or tutorial discussion, add a note with further explanation of the item.</p> <p>(7) Abbreviations are used most frequently in tables, illustrations, notes, bibliographies, and lists.</p> <p>(8) Acronyms are pronounceable words or shorthand expressions formed from most, or all, of the initial letters of a name or other term composed of two or more words.</p> <p>(9) Generally, abbreviations should not be used in technical text with the following exceptions:</p> <ul style="list-style-type: none"> • e.g., (for example,) • i.e., (that is,) • Vol. (volume, in certain references) <p>(10) The first time an abbreviation and acronym that is not already commonly accepted is used, spell out the full name and follow it with its abbreviation or acronym in parentheses.</p> <p>(11) Use commonly accepted abbreviations and acronyms where they are available.</p> <p>(12) “SEMI” is a registered trademark standing for Semiconductor Equipment and Materials International. Do not use this acronym to stand for anything else.</p>

#	Sections	Description
5-40	<i>Definitions</i>	<p>(1) Before including an entry in this section, check to determine if the item is included in the SEMI Compilation of Terms, available on the SEMI web site; http://www.semi.org/standards. Make sure that all entries taken from the Compilation of Terms exactly match the original entries in the compilation itself.</p> <p>(2) Avoid defining a term used only once within a document.</p> <p>(3) List definitions for terms commonly used in the field.</p> <p>(4) List definitions of terms in alphabetical order; if desired, divide the list into numbered subsections so that related terms are grouped before alphabetizing.</p> <p>(5) Avoid the use of discussions, equations, figures, and notes in the terminology section. Place these at the first point of use within the document.</p> <p>(6) If needed for clarification or tutorial discussion, add an explanatory note in a separate paragraph following the definition.</p> <p>(7) Identify the sources of definitions from other standards that are quoted. If the source is a standard or other document not published by SEMI, obtain a copyright release from the copyright holder and the primary author, if known, before submitting the document for balloting.</p> <p>(8) Write definitions of terms in the following dictionary-definition style:</p> <ul style="list-style-type: none"> • The term, in italics, but not capitalized unless the term is a proper noun or is customarily capitalized in use, • (optional) The part of speech, abbreviated and italicized, separated from the term by a comma and space [In general], it is assumed that the term is a noun. Therefore, the part of speech must be identified only for terms that are not nouns (e.g., <i>adj.</i>, <i>v.</i>, <i>adv.</i>), • (optional) The symbol for the term being defined, separated from the term by a comma and space, • (optional) Commonly used units for the quantity being defined, placed between square brackets, • (optional) A delimiting phrase or field label (in italics and in parentheses) if the term is specific to a particular field and could have a different meaning in another context. • A space, — (Em dash, found in most word processing fonts), another space, the definition (a one-phrase statement describing the term), and a period at the end. • Keep collections of definitions in alphabetical or alphanumeric order unless there is a compelling reason to order them differently. • Avoid defining with “is when” and “is where”. These adverb phrase introducers do not work well when defining a term. • Do not define a term by mere repetition. • Use simple and familiar terms. • Avoid ambiguous words (e.g., small – what does small mean?). <p>Examples:</p> <ol style="list-style-type: none"> 1. Term with delimiting phrase: “x.y <i>pitch (of a corrugated product)</i> — the distance between corresponding points on adjacent creasts.” 2. Term with symbol and units: “x.y <i>Hall mobility</i>, μ_H [cm²/V·s] — the ratio of the magnitude of the Hall coefficient to the resistivity.” 3. Term with part of speech: “x.y <i>dope</i>, <i>v.</i> — to add intentionally small amounts of impurities to a semiconductor to control the conductivity.”

#	Sections	Description
5-41	<i>Symbols</i>	<ol style="list-style-type: none"> (1) List descriptions of symbols commonly used in the field. (2) List symbols in alphabetical order; if desired, divide the list into numbered subsections so that related items are grouped before alphabetizing. (3) Do not include in the list standard symbols used for SI or other familiar units. (4) In a standard with many equations, it may be convenient to list all of the symbols as a separate subsection of the terminology section rather than under each equation. List the symbol first (in italic or roman type as it appears in the document), followed by a space, an em dash (—), another space, and a single phrase describing the meaning of the symbol. If necessary for clarification or tutorial discussion, add a note with further explanation of the symbol.
5-42	<i>Related Documents</i>	<ol style="list-style-type: none"> (1) List in this section any standards or other technical papers or documents that provide useful background material for carrying out the standard but are not specifically cited in the standard. (2) Only references that are publicly available should be listed. (3) Last section of the main body of the standard.
5-43	<i>Basis of Classification</i>	<ol style="list-style-type: none"> (1) Clearly state and describe the categories and subcategories on which the groupings of the classifications are based. (2) If necessary, develop additional section headings to enhance the explanation of the groupings.
5-44	<i>Classification</i>	<ol style="list-style-type: none"> (1) List groupings by category and subcategory using a tabular form or other selected means.
5-45	<i>Test Methods</i>	<ol style="list-style-type: none"> (1) List the test methods to be used to determine if the materials, products, systems, or services meet the requirements of the specification. Indicate in this section if retesting is allowed. (2) Include test methods for each attribute covered in the <i>Ordering Information and Requirements</i> sections. (3) Where available, cite applicable standard test methods available from ASTM, DIN, JEIDA, SEMI, or other SDOs. (4) If several standard test methods exist for a particular attribute, indicate either (1) the preferred test method for the purpose of determining the suitability of the product(s) or service(s) or (2) the basis for choosing one test method over another. (5) If an appropriate standard test method is not available, describe a test method in abridged form.^{#2} (6) If no standard test method can be identified for a specific attribute and no test method is described, state that the value of the attribute must be determined by a method agreed upon by the supplier and the purchaser.
5-46	<i>Application Specific</i>	<ol style="list-style-type: none"> (1) Describe the instructions, options, or recommendations intended to increase the awareness of the user to available techniques, starting points, or approaches. (2) If appropriate, include criteria for making a selection among various options.
5-47	<i>Summary of Practice</i>	<ol style="list-style-type: none"> (1) Preview the procedure by concisely listing the key steps. (2) If desired, include a flow chart of the key steps as a graphical representation.
5-48	<i>Apparatus</i>	<ol style="list-style-type: none"> (1) List all the equipment required to carry out the procedure.^{#3} (2) Avoid referring to specific company equipment names (trade names and trademarks). (3) Specify the requirements to be met by each piece of equipment. (4) For each piece of equipment specify the range or nominal value of all parametric requirements that directly affect the test result. (5) Specify the requirements so that the stated precision and bias of the test can be met by competent operators; do not over specify or under specify. (6) Make sure that all equipment and supplies called for in the procedure are described in this section. (7) Describe in this section any requirements for setting up and preparing the apparatus to carry out the procedure.

#	Sections	Description
5-49	<i>Reagents and Materials</i>	(1) List all process chemicals, gases, and other materials required to carry out the procedure. (2) Avoid referring to specific company equipment names (trade names and trademarks). (3) Cite SEMI specifications for required process chemicals and gases, where these are available to identify the assay and grade required by the procedure. Be sure to include the cited standards in the <i>Referenced Standards and Documents</i> section. (4) If water is required for use in the procedure, reference SEMI F63; be sure to indicate the grade of water required.
5-50	<i>Safety Precautions</i>	(1) Identify any hazardous materials, operations, and equipment required to perform the procedure safely. (2) Cite appropriate SEMI Safety Guidelines or other applicable safety standards and regulations. (3) Cite material safety data sheets, where applicable (MSDSs). (4) Insert cautionary notes concerning the use of hazardous items immediately before the points in the procedure or other sections where the item must be used.
5-51	<i>Test Specimens</i>	(1) Describe all test specimens required to carry out the procedure or test method. (2) Write procedures/instructions in this section as imperative sentences (i.e., start with a verb because the subject “you” is implied). The previous sentence is an imperative sentence, for example. (3) Describe the essential properties of the required test specimens. (4) Present a step-by-step procedure for selecting, preparing, and conditioning the test specimens.
5-52	<i>Procedure</i>	(1) List detailed, step-by-step instructions for performing the procedure. (2) Write procedures/instructions in this section as imperative sentences (i.e., start with a verb because the subject “you” is implied). The previous sentence is an imperative sentence, for example. (3) Instruct the user of the standard to record all information required for interpreting the results of the procedure; include all information specified in the report section. (4) Review the sequence of steps in the procedure to ensure that: <ul style="list-style-type: none"> • each step follows from the previous step, • all branches are clearly identified, and • no choices available to the user of the practice remain unspecified.
5-53	<i>Calculations</i>	(1) Describe in sequence, each calculation required to obtain the test result.
5-54	<i>Interpretation of Results</i>	(1) List the steps required to interpret the results of the procedure, if appropriate. (2) Some practices, such as practices to prepare a specimen for a test, do not require interpretation of the results. (3) If interpretation is required, write this section in this section as imperative sentences (i.e., start with a verb because the subject “you” is implied). The previous sentence is an imperative sentence, for example.
5-55	<i>Report</i>	(1) List the essential results of carrying out the procedure, if appropriate. Include the following items: <ul style="list-style-type: none"> • Identification of the test specimens, if any; • The location where the procedure was performed and the operator who carried it out; • Description of the specific equipment used to carry out the procedure, including software version, if appropriate; • Any optional portions of the procedure or choices exercised in carrying out the procedure; and • Results of carrying out the procedure. (2) Do not request information for the report unless its collection and recording are explicitly spelled out in the procedure.

#	Sections	Description
5-56	<i>Ordering Information</i>	<ol style="list-style-type: none"> (1) List all required and optional items to be included in a purchase order for the materials, products, systems, or services covered by this specification. (2) The list should be complete enough that an order based on it will result in definition of the desired product or service. (3) The list may be developed in tabular or outline format. (4) Be sure to list any choices of grades or other items that must be selected to define the product or service completely. (5) Where there is not a unique test method for particular attributes, indicate that the purchase document must show the test method to be used for such attributes.
5-57	<i>Requirements</i>	<ol style="list-style-type: none"> (1) List the requirements that must be met for the materials, products, systems, or services to fulfill the specification. (2) For a product covered by the specification, list the attributes of items such as materials of construction, methods of manufacture, chemical composition, physical properties, mechanical properties, dimensions. (3) For servicing covered by the specification, list the attributes or characteristics that the services must have. (4) If desired, group related requirements into independent sections. (5) Liberal use of tables and outlines facilitates understanding of the specification requirements.
5-58	<i>Sampling</i>	<ol style="list-style-type: none"> (1) Specify procedures for selecting test specimens from a lot in order to determine the acceptability of the lot.
5-59	<i>Certification</i>	<ol style="list-style-type: none"> (1) List the requirements for certifying that the product(s) or service(s) meet the specification. If desired, use the following standard paragraphs: <ol style="list-style-type: none"> x.1 Upon request of the purchaser in the contract or order, a manufacturer's or supplier's certification that the product was manufactured and tested in accordance with this specification, together with a report of the test results, shall be furnished at the time of shipment. x.2 If desired, the supplier and purchaser may agree that the product shall be certified as "capable of meeting" certain requirements. In this context, "capable of meeting" shall signify that the supplier is not required to perform the appropriate tests. However, if the purchaser performs the test(s) and the product fails to meet the requirement(s), the product may be subject to rejection.
5-60	<i>Product Labeling</i>	<ol style="list-style-type: none"> (1) List information to be included on the label of the product, including (if appropriate) a statement of conformance with the specification.
5-61	<i>Packing and Package Labeling</i>	<ol style="list-style-type: none"> (1) List requirements for protective or outer packaging, including information to be placed on the package label(s).
5-62	<i>Summary of Test Methods</i>	<ol style="list-style-type: none"> (1) Preview the procedure by concisely listing the key steps. (2) If desired, include a flow chart of the key steps as a graphic.
5-63	<i>Preparation of Apparatus</i>	<ol style="list-style-type: none"> (1) Present a step-by-step procedure for preparing or setting up the equipment required to carry out the test method. (2) Write procedures/instructions in this section as imperative sentences (i.e., start with a verb because the subject "you" is implied). The previous sentence is an imperative sentence, for example. (3) Include this section only for equipment requiring special set-up procedures; use the Calibration and Standardization section for these procedures.
5-64	<i>Calibration and Standardization</i>	<ol style="list-style-type: none"> (1) Give step-by-step procedures for calibrating or standardizing the apparatus. (2) Write procedures/instructions in this section as imperative sentences (i.e., start with a verb because the subject "you" is implied). The previous sentence is an imperative sentence, for example. (3) Do not include this section if calibration and standardization procedures are automatically provided in the apparatus. (4) Describe calibration and standardization procedures in the Procedure section if they are required before each test.

#	<i>Sections</i>	<i>Description</i>
5-65	<i>Precision and Bias</i>	(1) Provide in this section a statement of the precision and bias expected to be achieved by a competent operator in using the test method together with a description of the basis for the statement such as the results of a single laboratory or multi-laboratory (round-robin) test.

#1 If it is necessary to reference a companion draft standard under development during the balloting of a SEMI standard, allude to the material by a descriptive phrase, not necessarily the title of the companion draft standard, and include a note to the effect that a standard (provisional standard, safety guideline, etc.) covering the topic is being developed by a SEMI standards committee which can be identified, if desired.

#2 Instead of writing an abridged test method in this section, the test method can be a separate standard and cited in this section.

#3 It is desirable to include a diagram of the apparatus in this section.

5.3 Auxiliary Sections

5.3.1 Table 9 describes the Appendix, Related Information, Delayed Revision, and Revision Record sections, which provide auxiliary information (*Regulations*, § 13) related to a standard or safety guideline.

Table 9 Auxiliary Sections

#	Section	Description
5-66	<i>Appendix</i>	<ol style="list-style-type: none"> (1) An appendix provides supplementary material that is required for carrying out the standard or safety guideline. Appendices are official parts of the standards and safety guidelines in which they appear. (2) Appendices follow immediately after the standard or safety guideline to which they apply. (3) See Table 1, Appendix Title Designation for additional information. (4) Each appendix should be numbered sequentially. (5) Appendix Notice is mandatory (see Table 11, Appendix). (6) Paragraph numbers in appendices begin with “A#-” followed by the outline numbering system described in Table 1, Paragraph Numbering.
5-67	<i>Related Information</i>	<ol style="list-style-type: none"> (1) A related information section provides supplementary material that is not required to carry out the standard or safety guideline. Related information sections are not official parts of the standards and safety guidelines in which they appear. (2) Related information sections follow immediately after any appendices in the standard or safety guideline to which they apply. In the absence of appendices, related information sections follow immediately after the standard or safety guideline to which they apply. (3) See Table 1, Related Information Title Designation for additional information. (4) Each related information section should be numbered sequentially. (5) Related Information Notice is mandatory (see Table 10, Related Information). (6) Paragraph numbers in related information sections begin with “R#-” followed by the outline numbering system described in Table 1, Paragraph Numbering.
5-68	<i>Delayed Revision</i>	<ol style="list-style-type: none"> (1) The delayed revision section previews revisions to a document that have been balloted and approved, but are not immediately effective until a specified date. (2) Delayed revision sections follow immediately after any appendices and related information sections in the standard or safety guideline to which they apply. In the absence of appendices or related information sections, delayed revision follow immediately after the standard or safety guideline to which they apply. (3) Each delayed revision section should be numbered sequentially. (4) Each line item in a ballot that is approved for publication receives a separate delayed revision section. (5) The title of a delayed revision section is composed of two lines. “DELAYED REVISION # (EFFECTIVE <i>date</i>)” on the first line, followed by the title of the delayed revision section on the second line. (6) The notice following the title is mandatory (see Table 10, Delayed Revision). (7) Paragraph numbers in delayed revision sections begin with “D#-” followed by the outline numbering system described in Table 1, Paragraph Numbering. (8) The standard or safety guideline contains delayed revision notices that indicate revisions will occur at a later date. (9) A notice introducing the standard or safety guideline’s delayed revision material precedes the purpose section. This notice is mandatory (see Table 10 Delayed Revision, Main Document). (10) Delayed revision notices are inserted in the main part of the standard or safety guideline where the deferred change will occur. This notice is mandatory (see Table 10, Delayed Revision).

#	Section	Description
5-69	<i>Revision Record</i>	<p>(1) The Revision Record tracks revisions made to a document. It is placed at the end of the document (after Appendix and Related Information sections), and contains the following information:</p> <ul style="list-style-type: none"> • <i>Cycle</i> — Effective publication cycle; entered by SEMI Staff • <i>Authorization</i> — Source of change (e.g., ballot, or PIP); entered by SEMI Staff • <i>Section</i> — Location of the change(s); provided by author/committee in ballot background statement. • <i>Description</i> — Clear description of the change(s); provided by author/committee in ballot background statement. <p>(2) See Table 3, §§ 4-30, 4-32, and 4-33 for table formatting rules.</p> <p>(4) Revision Record Notice is mandatory (see Table 10, Revision Record).</p> <p>(5) See APPENDIX 3 for formatting example.</p>

5.4 Notices

5.4.1 Table 10 outlines the official Notices found within standards and safety guidelines. Notices contain information supplied by SEMI that is not subject to revision by external parties. A committee can recommend the use of a notice in a standard, but SEMI retains ownership.

Table 10 Notices

#	Name	Description
5-70	<i>Responsibility Addendum</i>	(1) This notice contains the publication tracking information. It is managed and entered by SEMI staff.
5-71	<i>Scope Notice</i>	<p>(2) Include the following notice after the last paragraph of the Scope section of any standard or guideline that is not a safety guideline:</p> <p>NOTICE: This standard does not purport to address safety issues, if any, associated with its use. It is the responsibility of the users of this standard to establish appropriate safety and health practices and determine the applicability of regulatory or other limitations prior to use.</p>
5-72	<i>Scope Notice (Safety Guidelines)</i>	<p>(1) Include the following notice after the last paragraph of the Scope section of each safety guideline.</p> <p>NOTICE: This safety guideline does not purport to address all of the safety issues associated with its use. It is the responsibility of the users of this safety guideline to establish appropriate safety and health practices and determine the applicability of regulatory or other limitations prior to use.</p>
5-73	<i>Referenced Standards and Documents</i>	<p>(1) Include the following notice at the end of the section:</p> <p>NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.</p>
5-74	<i>Cautions and Warnings</i>	<p>(1) Include caution and warning notices regarding safety hazards or other issues, as appropriate, throughout standards.</p> <p>(2) Begin each notice with the word CAUTION or WARNING, as appropriate, using all uppercase letters and boldface type.</p> <p>WARNING: see ¶ 4 for warning statement.</p> <p>(3) List the sections where caution and warning notices appear as a part of the last paragraph in the scope.</p>
5-75	<i>Appendix</i>	<p>(1) Include the following notice below the title:</p> <p>NOTICE: The material in this appendix is an official part of SEMI [insert designation, without publication date (month-year) code] and was approved by full letter ballot procedures on [insert date of approval by responsible regional standards committee].</p>

#	Name	Description
5-76	<i>Related Information</i>	<p>(1) Include the following notice below the title:</p> <p>NOTICE: This related information is not an official part of SEMI [insert designation, without publication date (month-year) code] and was derived from [insert origin of the information]. This related information was approved for publication by [insert the method by which publication was authorized, <i>Regulations</i>, ¶13.2] on [insert date of approval].</p>
5-77	<i>Delayed Revision</i>	<p>(1) Following the delayed revision title, this first notice shall be formatted in bold text.</p> <p>NOTICE: This Delayed Revisions Section contains material that has been balloted and approved by the SEMI [insert committee], but is not immediately effective. The provisions of this material are not an authoritative part of the document until their effective date. The main body of [insert designation] remains the authoritative version. Some or all of the provisions of revisions not yet in effect may be applied prior to the effective date, providing they do not conflict with portions of the authoritative version other than those that are to be revised or replaced as part of the deferred revision, and are labeled accordingly.</p> <p>NOTICE: Unless otherwise noted, all material to be added shall be <u>underlined</u>, and all material to be deleted shall be struck through.</p>
5-78	<i>Delayed Revision (Main Document)</i>	<p>(1) A notice introducing the standard or safety guideline's delayed revision material precedes the purpose section. The notice states the following:</p> <p>NOTICE: This document contains material that has been balloted and approved by the SEMI [committee name], but is not immediately effective. This material and the date on which it becomes effective are included in Delayed Revisions Section(s) X. The provisions of this information are not an authoritative part of the document until their effective dates. The main body of SEMI [designation number] remains the authoritative version. Some or all of the provisions of revisions not yet in effect may be applied prior to the effective date, providing they do not conflict with portions of the authoritative version other than those that are to be revised or replaced as part of the deferred change, and are labeled accordingly. Material that is to be replaced by revisions that are not yet in effect is preceded by a NOTICE indicating its status.</p> <p>(2) Delayed revision notices are inserted in the main part of the standard or safety guideline where the deferred change will occur. These notices shall state the following:</p> <p>NOTICE: [Indicate the revision that will occur] upon [effective date of the revision] publication as shown in Delayed Revisions Section X. The [committee name] has voted that [revision that will occur] is [OPTIONAL or NOT OPTIONAL] before the Effective Date.</p>

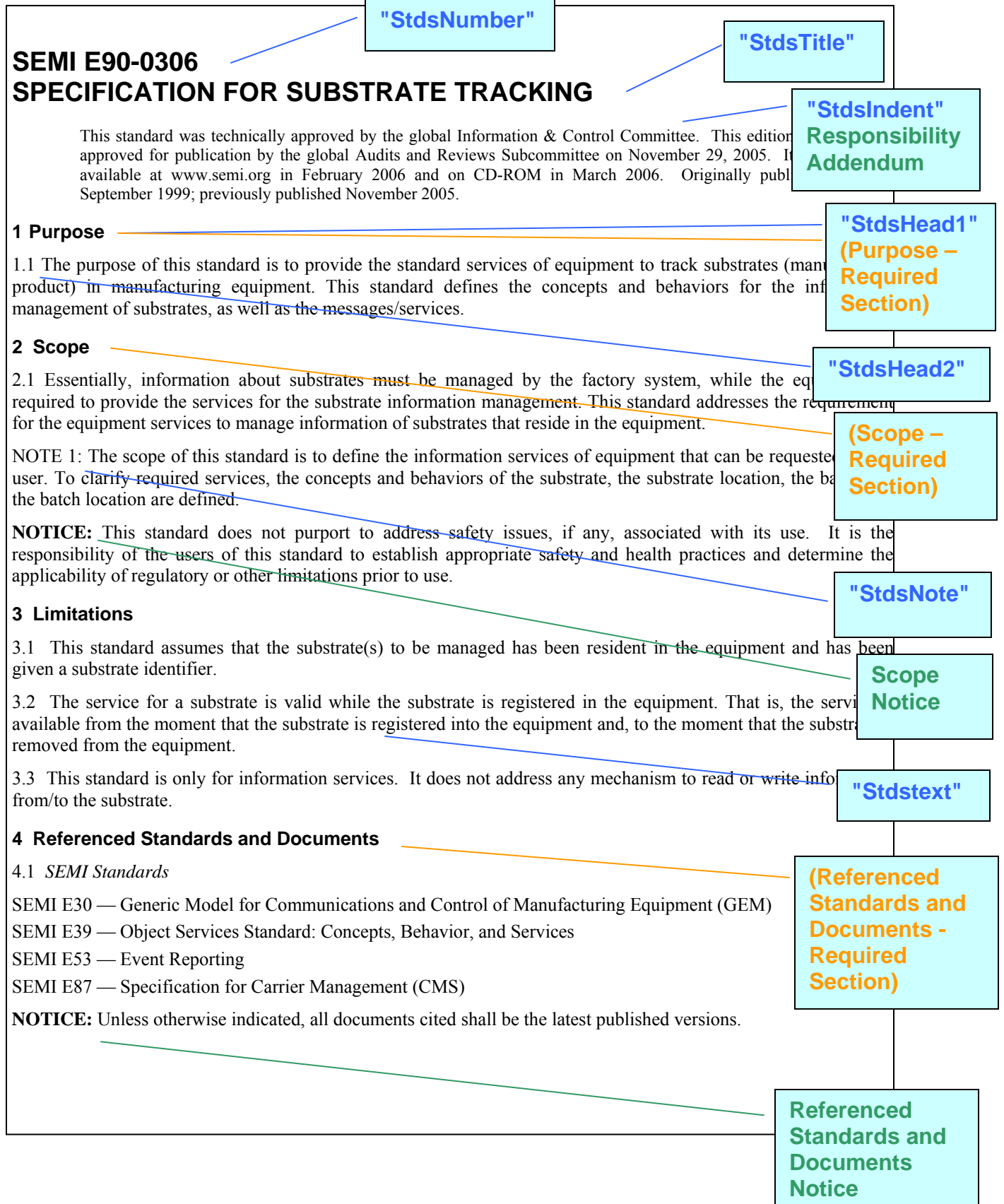
#	Name	Description
5-79	<i>End Notice</i>	<p>(1) The following notice is required to be placed at the end of each standard or safety guideline. Italicized text set off by brackets is to be replaced with the type of information it indicates.</p> <p>NOTICE: SEMI makes no warranties or representations as to the suitability of the [<i>standard(s) or safety guideline(s), as appropriate</i>] set forth herein for any particular application. The determination of the suitability of the [<i>standard(s) or safety guideline(s), as appropriate</i>] is solely the responsibility of the user. Users are cautioned to refer to manufacturer’s instructions, product labels, product data sheets, and other relevant literature respecting any materials or equipment mentioned herein. These [<i>standards or safety guidelines, as appropriate</i>] are subject to change without notice.</p> <p>(2) The following notice is required to be placed following the above notice at the end of each standard and guideline by ¶ 4.6 of the <i>Regulations</i> unless the <i>End Notice (Patents)</i> is required to be used instead. Italicized text set off by brackets is to be replaced with the type of information it indicates.</p> <p>By publication of this [<i>standard or safety guideline, as appropriate</i>], Semiconductor Equipment and Materials International (SEMI) takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this [<i>standard or safety guideline, as appropriate</i>]. Users of this [<i>standard or safety guideline, as appropriate</i>] are expressly advised that determination of any such patent rights or copyrights, and the risk of infringement of such rights are entirely their own responsibility.</p>
5-80	<i>End Notice (Patents)</i>	<p>(1) When patented technology or copyrighted items must be employed in order to comply with a standard or guideline, ¶ 15.1 of the <i>Regulations</i> requires that the following notice be placed following the notice specified in the <i>End Notice</i> at the end of the standard or guideline. Italicized text set off by brackets is to be replaced with the type of information it indicates.</p> <p>The user’s attention is called to the possibility that compliance with this [<i>standard or safety guideline, as appropriate</i>] may require use of copyrighted material or of an invention covered by patent rights. [<i>Name of company</i>] has filed a statement with SEMI asserting (CHOOSE ONE) (that the patented or copyrighted item can be used by the public for the purpose of implementing the standard (safety guideline) without specific license and without payment of royalty or other charge) (that licenses will be made available to applicants throughout the world for the purpose of implementing this standard (safety guideline) without unfair discrimination). Attention is also drawn to the possibility that some elements of this [<i>standard or safety guideline, as appropriate</i>] may be subject to patented technology or copyrighted items other than those identified above.</p> <p>Semiconductor Equipment and Materials International (SEMI) shall not be held responsible for identifying any or all such patented technology or copyrighted items. By publication of this [<i>standard or safety guideline, as appropriate</i>], SEMI takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this standard. Users of this [<i>standard or safety guideline, as appropriate</i>] are expressly advised that determination of any such patent rights or copyrights and the risk of infringement of such rights are entirely their own responsibility.</p> <p>(2) The following notice is required to be placed following the above notice at the end of each standard and guideline by ¶ 4.6 of the <i>Regulations</i>.</p> <p>By publication of this [<i>standard or safety guideline, as appropriate</i>], Semiconductor Equipment and Materials International (SEMI) takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this [<i>standard or safety guideline, as appropriate</i>]. Users of this [<i>standard or safety guideline, as appropriate</i>] are expressly advised that determination of any such patent rights or copyrights, and the risk of infringement of such rights are entirely their own responsibility.</p>



#	<i>Name</i>	<i>Description</i>
5-81	<i>Notes</i>	NOTICE: Paragraphs entitled “NOTE:” are not an official part of this safety guideline and are not intended to modify or supersede the official safety guideline. These have been supplied by the committee to enhance the usage of the safety guideline.
5-82	<i>Revision Record</i>	NOTICE: The following information is provided to track revisions to this document. Negative votes may not be cast against this information. Changes can be submitted to SEMI staff via a Publication Improvement Proposal (PIP) form.

APPENDIX 1

SEMI STANDARDS TEMPLATE STYLES



5 Terminology

5.1 Definitions

5.1.1 *batch* — a group of substrates to be processed in a process resource simultaneously.

5.1.2 *batch location* — locations in the equipment where substrates visit as a group of substrates for processing.

5.4.2 *batch container* — a supporting structure that is used to hold substrates for processing, and it may visit multiple locations in equipment with substrates in it. Whether a batch container is used or not depends on the type of equipment. Typical example for a batch container is a “boat” used in furnace equipment.

NOTICE: SEMI makes no warranties or representations as to the suitability of the standard(s) set forth herein for any particular application. The determination of the suitability of the standard(s) is solely the responsibility of the user. Users are cautioned to refer to manufacturer’s instructions, product labels, product data sheets, and other relevant literature respecting any materials or equipment mentioned herein. These standards are subject to change without notice.

By publication of this standard, Semiconductor Equipment and Materials International (SEMI) takes no position respecting the validity of any patent rights or copyrights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of any such patent rights or copyrights, and the risk of infringement of such rights are entirely their own responsibility.

(Terminology –
Required
Section)

End
Notice

Copyright
Notice

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Key

Blue = Style Naming Scheme to be Applied

Green = Required Notices

NOTE 1: These notices are required in all documents.

Orange = Required Sections

NOTE 2: These sections are required in all documents.

APPENDIX 2 SEMI STANDARD FORMATTING EXAMPLES

**SEMI Draft Document #####
NEW STANDARD: SPECIFICATION FOR ...**

**Figure A2-1
Example of Designation and Title in a Ballot**

**SEMI A##-MMYY
SPECIFICATION FOR ...**

**Figure A2-2
Example of Designation and Title in a Standard**

1 Purpose

**Figure A2-3
Example of Section Heading**

1.1 *Introduction* — Text ...
1.1.1 *Application* — Text ...
1.1.1.1 Text ...

1.1 *Introduction*
1.1.1 Text ...
1.1.2 Text ...

**Figure A2-4a and A2-4b
Example of Second Level and Subsequent Headings**

**Figure 1
Side Load Test Apparatus**

**Figure A2-5
Example of a Figure Caption**

NOTE: This apparatus is to be made out of stainless steel.

**Figure 1
Side Load Test Apparatus**

**Figure A2-6
Example of a Figure Caption with Note**

APPENDIX 3 REVISION RECORD FORMATTING EXAMPLE

REVISION RECORD

"StdsTitle"

Revision
History Notice

NOTICE: The following information is provided to track revisions to this document. Negative votes may not be cast against this information. Changes can be submitted to SEMI Staff via a Publication Improvement Proposal (PIP) form.

"Stds Table
Head"

<i>Cycle</i>	<i>Authorization</i>	<i>Section</i>	<i>Description</i>
0305	Ballot 3907	Entire Document	<p>This revision combines most of SEMI M1 with parts of SEMI M18 to form a new set of specifications that includes:</p> <p>Purpose, a new scope, referenced standards, ordering information (consolidated with some of SEMI M18), requirements (assembled from several existing sections in SEMI M1), sampling, test methods, certification, and packing and shipping container labeling sections;</p> <p>Basic polished wafer specifications (developed by the Basic Wafer Specification TF);</p> <p>The two appendices and one related information section included in previous editions of SEMI M1; and</p> <p>A new related information section on detailed discussion of test methods, based largely on material previously in SEMI M28.</p> <p>A new table of contents has been added to make it easier to locate specific information in the standard, and the terminology section of SEMI M1 was combined with SEMI MF1241 and issued as SEMI M59. The EDI codes from SEMI M18 remain in that standard.</p>

"Stds
Table Text"

Key

Blue = Style Naming Scheme to be Applied

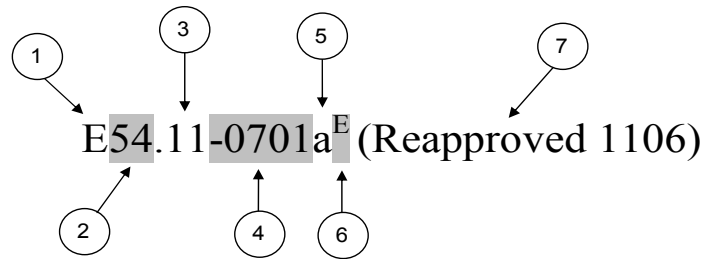
Green = Required Notice

APPENDIX 4 COMMONLY USED SYMBOLS AND COMMANDS

Table A4-1 Symbols

<i>Sign</i>	<i>Name</i>	<i>Rule/Usage</i>
§	Section	A character used to identify a particular section or subsection of the document. The identified portion refers to the numbered paragraph or header identified by the number following the symbol and all subordinate headers and paragraphs, as well as the Exceptions and lists (bulleted or numbered) embedded therein. For example § 9.2 refers to paragraphs 9.2, 9.2.1, 9.2.2, and 9.2.4. When duplicated (e.g., §§), the symbol refers to more than one section or subsection.
¶	Paragraph/Pilcrow	A character used to identify a particular paragraph of the document. The identified portion refers to the numbered paragraph identified by the number following the symbol and the Exceptions and lists (bulleted or numbered) embedded therein. It does not, however, include the subordinate headers and paragraphs. For example ¶ 9.2 refers to paragraph 9.2 only. It does not, however, include paragraphs 9.2.1, 9.2.2, 9.2.3, and 9.2.4. When duplicated (e.g., ¶¶), the symbol refers to more than one paragraph.
±	Plus/Minus	Use mathematically
μ	Micro	Use mathematically
μm	Micrometer (micron)	Use mathematically
\bar{x}	Average (Sample Mean)	Use mathematically
<i>s</i>	Sample Standard Deviation	Use mathematically
<i>v</i>	Coefficient of Variation	Use mathematically
<i>n</i>	Number of Observations	Use mathematically
=	Equal to	Use mathematically
+	Plus	Use mathematically
/	Division	Use mathematically
×	Multiplication	Use mathematically. May also be used to represent magnification.
-	Minus	<ul style="list-style-type: none"> • Use a minus sign to indicate subtraction or a quantity less than zero. • Do not use a space between the minus sign and the numeral when indicating a quantity less than zero. • Align minus and plus signs vertically in tables.
<	Less than	Use mathematically
>	Greater than	Use mathematically
≤	Less than/Equal to	Use mathematically
≥	Greater than/Equal to	Use mathematically
≈	Almost Equal to	Use mathematically
∑	Sum	Use mathematically
√	Square root	Use mathematically
™	Trademark	Use trademarks as modifiers to a generic product type (e.g., NanoSpec™ gauge).
©	Copyright	Follow legalities and proper protocol when using copyrighted information and use this symbol.
®	Registered	If it is federally registered, use an ® symbol immediately behind the term (e.g., SEMI®).
{ [(({ ()) })] }	Parentheses	Use parentheses and brackets in this sequence when using more than one, up to six levels.

APPENDIX 5 DESIGNATION STRUCTURE



<i>Field of Standard</i>	<i>Designation Letter</i>
Process Chemicals; Gases	C
Flat Panel Display	D
Equipment Hardware; Equipment Software	E
Facilities	F
Packaging	G
Materials	M
Silicon Materials and Process Control (former ASTM standards)	MF
MEMS	MS
Microlithography	P
Safety Guidelines	S
Traceability	T
Auxiliary information, published independently	AUX
Proposed Standards, published within other volumes	PR ^{#1}

#1 This designation letter is being discontinued. It is included solely for reference.

#	<i>Part</i>	<i>Explanation</i>	<i>Example</i>
1	Designation Letter(s)	Indicates the field of standard. See table above.	C, D, MF
2	Designation Number	Sequentially assigned for each standard approved for a given field	1, 2, ... 54...144...n
3	Sub-Document Number	Assigned only for sub-documents. Sequentially assigned for each sub-document for a given parent standard. Separated from the designation number by a decimal point	.1, .2,9
4	Designation Date	Indicates the year (yy) or month and year (mmyy) of official publication. Separated from the designation number or sub-document number by a hyphen.	-96, -0301
5	Delayed Revision suffix	Indicates that the document was technically modified but no immediately effective changes were made to the official standard (i.e., delayed revision sections were added to the document)	a, b, c
6	Editorial Change	Indicates a non-balloted change; implemented by a Publication Improvement Proposal (PIP) form.	E
7	Status	Indicates status of a currently published standard if anything other than full consensus.	(Preliminary), (Interim), (Reapproved mmyy), (Withdrawn mmyy)

APPENDIX 6 PREFERRED SPELLINGS OF COMMONLY USED WORDS

A

acidproof
alignment (not alinement)
Aloxite (trademark, instead use aluminum oxide)
appendices (*pl*)
assure (to convince)

B

burette (not buret)

C

cancel (not cancell)
catalog (not catalogue)
cleanroom (not clean room)
chem-mechanical (as in chem-mechanical polishing)
customer (not preferred, use purchaser)

D

data (*pl*, but may be used in collective singular sense with singular verb)
datum (*pl*, data)
disk (not disc)

E

ensure (to make sure/certain of)
et al. (*abbr.* for et alii)

F

fiberglass (not fibreglass)
flowmeter

G

gauge (not gage)
gray (not grey)
ground water (not groundwater)

H

heat treat (*v*) (not heat-treat)
heat-treated (*adj*)

I

indexes (*pl*) (except, use indices in a mathematical context)
insure (to guarantee financially)
in situ (in place) (never hyphenated)

K

Kel-F (trademark, instead use polychlorotrifluoroethylene)

L

liter (unit of volume, symbol: L) (not litre)

Lucite (trademark, instead use poly(methyl methacrylate) [PMMA])

M

machinability (not macineability)

meter (unit of length, symbol: m) (not metre)

microscopic (meaning very small)

microscopical (meaning pertaining to use of a microscope)

minienvironment

Mylar (trademark, instead use polyester film)

N

Nujol (trademark, instead use light mineral oil)

O

O-ring (*n* and *adj*)

P

period (preferred to time frame)

pipette (not pipet)

Plexiglas (trademark, instead use acrylic plastic)

poly (vinyl chloride) (PVC)

Pyrex (trademark, instead use borosilicate glass)

R

real time (*n*)

real-time (*adj*)

road map (except when referring to the National Technology Roadmap for Semiconductors [NTRS], use roadmap)

rust proof (*v*)

rust-proof (*adj*)

S

saran (*lc*)

Scotch tape (trademark, instead use pressure-sensitive tape)

Stokes' law (*lc* "l")

sulfur (not sulphur)

T

Teflon (trademark, instead use TFE-fluorocarbon or polytetrafluoroethylene [PTFE])

Tygon (trademark, instead use vinyl)

U

usage

user (not preferred, use purchaser)

V

Vaseline (trademark, instead use petroleum jelly)

vendor (not preferred, use supplier)

V-groove (*n* and *adj*)

viscometer (not viscosimeter)

V-notch (*n* and *adj*)

Vycor (trademark, instead use high-silica)

W

wavelength (not wave length)

wave number (not wavenumber)

I Web site (not Website or website)

X

X ray (*n*)

X-ray (*adj* and *v*)

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