



APPA Technical Document Style Manual





APPA International is an ANSI Accredited Standards Developer

APPA's standards and codes activities rest on these three core principles: **OPENNESS, COLLABORATION, and TRUST**, tied to APPA's strategic vision and grounded in its mission and purpose.

- To promote codes and standards **AWARENESS** and **EDUCATION** among members.
- Determine the **IMPACT** of existing and proposed standards and codes on educational institutions
- To **INFLUENCE** standards and code development process and outcomes. APPA accomplishes this by preparing recommendations and proposed language for adoption by national and international standards bodies.
- Display APPA's **LEADERSHIP** on standards and codes and seek pragmatic solutions to the needs/requirements of education institutions with regard to facilities and infrastructure standards as they relate to APPA's four core area (i.e., General Administration and Management; Operations and Maintenance; Energy, Utilities and Environmental Stewardship; and Planning, Design and Construction).
- Identify broad **CONSENSUS** among APPA's institutional members and seek appropriate representation in standards bodies at local/state/national/international levels on behalf of APPA. To ensure wide and diverse input and consensus on standards issues among APPA members, may include the following: APPA standards, APPA technical reports, and APPA requirements.

Contents

1	Overview	1
1.1	Abstract (optional).....	1
1.1.1	Abstract content	1
1.1.2	Approach.....	1
1.2	Copyright and permissions.....	1
1.2.1	General copyright policy	1
1.2.2	Disclaimer.....	2
1.3	Excerpting material published by other organizations.....	2
1.4	Patents	3
1.5	Trademarks.....	3
1.6	Commercial terms and conditions.....	3
2	The frontmatter of an APPA draft standard.....	4
2.1	Required frontmatter elements	4
2.1.1	Draft labeling and designations	4
2.1.2	Draft copyright statements.....	4
2.1.3	Title	5
2.2	Permission list	5
2.3	Abstracts and keywords	6
2.4	Committee lists.....	6
2.5	Introduction	6
2.6	Acknowledgments	6
2.7	Table of contents	6
3.	The body of an APPA draft standard.....	7
3.1	Normative and informative clauses.....	7
4.	Word Usage	7
4.1	Homogeneity	7
4.2	Shall, should, may, and can.....	8
4.3	That and which.....	8

4.4	Gender-neutral language	8
4.5	“Absolute” verbiage	9
4.6	Use of the first- or second-person forms of address.....	9
5.	Order of clauses	9
5.1	The overview of the draft	9
5.1.1	General.....	9
5.1.2	Scope.....	9
5.1.3	Purpose	10
5.2	Normative references	10
5.2.1	Citation as a normative reference	10
5.2.2	Structure of the normative references clause	11
5.2.3	Style for standards reference entries	11
5.2.4	Non-standards citations.....	12
5.3	Definitions.....	12
5.3.1	General terminology usage.....	12
5.3.2	Construction of the definitions clause.....	12
5.3.3	Acronyms and abbreviations	13
5.4	Annexes.....	13
5.4.1	Ordering annexes.....	13
5.4.2	Normative annexes	13
5.4.3	Informative annexes	14
5.4.4	Indexes.....	14
6.	Numbering the clauses and sub clauses of a standard.....	14
6.1	Body clauses.....	14
6.2	Numbering annexes.....	15
6.3	Lists	15
7.	Quantities, units, and letter symbols.....	16
7.1	Quantity	16
7.2	Numbers.....	16
7.3	Metric system	17
7.4	Letter symbols	17
8.	Tables.....	18
8.1	Labeling and presentation of tables.....	18

8.2	Numbering and capitalization in tables	18
8.3	Presentation of data and table format	18
8.3.1	Units of measure	18
8.3.2	Numerical values	18
8.3.3	Notes and footnotes to tables	19
8.4	Informal tables	19
9.	Figures	20
9.1	Requirements for creating figures	20
9.2	Figure numbering and titles	21
9.3	Notes and footnotes to figures	21
10.	Mathematical expressions	22
10.1	Letter symbols and units	22
10.2	Numbering of equations	22
10.3	Presentation of equations	22
10.4	Quantity and numerical value equations	23
11.	Notes, footnotes, examples, warnings, and cautions	24
11.1	Notes	24
11.2	Footnotes	24
11.3	Examples	24
11.4	Warnings and cautions	24
12.	Bibliography	25
12.1	General	25
12.2	Citing standards in a bibliography	25
12.3	Article in periodicals	25
12.4	Books	25
13.	Amendments, corrigenda, and errata	26
13.1	General	26
13.2	Amendment and corrigenda	26
13.2.1	Numbering in amendments and corrigenda	27
13.2.2	Editorial instructions in amendments and corrigenda	27
13.2.3	Amendment versus revision	28
14.	APPA documents developed jointly with other organizations	29
	Annex A – Permissions requests	1

Annex B – Permission letter samples	2
B.1 Permission request letter	3
B.2 Permission request letter to modify text.....	4
B.3 Permission response letter	5
B.4 Permission response letter to modify text	6
Annex C – Terms and definitions - (informative)	7
C.1 Creation of new terms and definitions	7
C.2 Revision of existing terms and definitions.....	8
C.3 APPA Definitions Database	8
C.4 International harmonization	8
Annex D - Bibliography.....	9
Index	10

1 Overview

2 This manual establishes the preferred style for the presentation and structure of proposed APPA
3 standard drafts which is in compliance with American National Standards Institute (ANSI)
4 formats.

5
6 This manual is not intended to be a guide to the procedural development of a standard. For that,
7 consult the APPA *Accredited Procedures for the Development of American National Standards*
8 (<http://www.appa.org/files/APPAANSI22916.pdf>).

9 1.1 Abstract (optional)

10 1.1.1 Abstract content

11 The Technical Steering Committee (TSC) has the option of adding an abstract to any standard
12 that will be published.

13 1.1.2 Approach

14 The abstract should be as informative as the nature of the document will permit, to enable all
15 levels of readers to decide, quickly and accurately, whether they need to read the entire standard.
16 Where possible, the abstract should begin with the most important recommendation(s) and
17 purpose(s) of the standard. Each abstract should be self-contained so it is understood without
18 referencing the standard. Abstract language should be concise without being obscure, and it
19 should retain the basic information and tone of the standard.

20 The abstract should have complete sentences and active verbs, and should be written in the third
21 person. Non-textual material such as structural formulas should be used only when no acceptable
22 alternative exists. Standard nomenclature should be employed; unfamiliar terms, abbreviations,
23 and symbols should be defined the first time they occur in the abstract.

24 1.2 Copyright and permissions

25 1.2.1 General copyright policy

26 Contributions by participants to APPA Standards projects are subject to the APPA Copyright
27 Policy. This policy is outlined in the *Accredited Procedures for*
28 *The Development of American National Standards* located on the APPA website under Codes &
29 Standards (<http://www.appa.org/standards.cfm>).

30 The following information shall be placed on the copyright page

31 Copyright © 20XX by APPA

32 All rights reserved.

33 Printed in the United States of America.

34 International Standard Book Number: ISBN #1-890956-90-2

35 Except as permitted under law, no part of this publication may be reproduced, stored in a
36 retrieval system, distributed, or transmitted, in any form or by any means—electronic,

37 mechanical, photocopying, recording or otherwise—without the prior written permission
38 of APPA.

39 1.2.2 Disclaimer

40 *The concepts and guidelines presented in this publication are intended to assist facilities*
41 *managers in the efficient and effective operation of their institutions. These are*
42 *guidelines only and are not necessarily industry standards. Mention of companies and*
43 *products are for informational purposes only and are not intended by APPA as an*
44 *endorsement of any kind.*

45 1.3 Excerpting material published by other organizations

46 It is strongly recommended that copyrighted material be referenced rather than reprinted.
47 However, when using excerpts of published text, tables, or figures, and if modifying or adapting
48 the material is unavoidable, permission to do so shall be requested from the copyright owner.
49 The sub work group leader(s) is responsible for obtaining such permission. (See Annex B for
50 samples.)

51 Standards developers are encouraged to request permission from copyright owners as soon as the
52 decision is made to include copyrighted materials in a draft. Standards developers should initiate
53 the permission seeking process prior to the start of committee ballot. Permission letters shall be
54 written by APPA staff. If there are difficulties in obtaining permission responses, the sub
55 working group should consider citing the information normatively rather than including an
56 excerpt.

57 It is preferred that the APPA permission form letters are used when seeking permission (see
58 Annex B). APPA requests the following:

59 Non-exclusive, irrevocable, royalty-free permission, and requires world rights for
60 distribution and permission to modify and reprint in future revisions and editions of the
61 resulting draft and approved APPA standard and in derivative works based on the
62 standard, in all media known or hereinafter known.

63 In addition, no limitation on the right of APPA to determine appropriate business arrangements
64 for its standards shall be included as a stipulation for use of material. Contact APPA staff at
65 standards@appa.org with any questions regarding material that might not meet the requirements.

66 The following credit line shall be used if specific approval language from the copyright holder is
67 not available.

68 [insert material] reprinted with permission from [copyright owner, title of publication,
69 year of publication].

70 The working group is responsible for alerting the APPA staff (standards@appa.org) instances
71 where legal agreements or licenses are required. This includes the adoption of independently
72 developed documents as potential APPA standards. Working groups shall not negotiate
73 agreements with outside entities with regard to APPA standards. Please contact APPA staff with
74 any questions about licensing agreements, copyright, and permission.

75 **1.4 Patents**

76 Working groups concerned about or interested in the relationship of patents and patent-related
77 requirements to APPA standards should review this policy outlined in the *Accredited Procedures*
78 *for the Development of American National Standards* located on the APPA website under Codes
79 & Standards (<http://www.appa.org/standards.cfm>). Please note that any reference to patents or
80 patent applications shall be made only in the frontmatter of the standard. The APPA template
81 contains the patent statement that is to be included in the frontmatter.

82 **1.5 Trademarks**

83 Working groups shall research the proper use guidelines for any trademarks appropriate for their
84 drafts and ensure that no fees are required, limitations imposed, etc. This information is usually
85 stated on the websites of the trademark owners. If used, any trademarked items shall be
86 identified in the standard and marked as such (with either ® or ™, as appropriate) upon first
87 reference. All trademarked items cited in standards shall be credited to the trademark owner in
88 the frontmatter of the standards.

89 **1.6 Commercial terms and conditions**

90 The APPA policy on commercial terms and conditions reads as follows:

91 Provisions involving business relations between buyer and seller such as guarantees,
92 warranties, and other commercial terms and conditions shall not be included in an APPA
93 standard. The appearance that a standard endorses any particular products, services, or
94 companies shall be avoided. Therefore, it generally is not acceptable to include
95 manufacturer lists, service provider lists, or similar material in the text of an APPA
96 standard. Where a sole source exists for essential equipment, materials, or services
97 necessary to comply with or to determine compliance with the standard, it is permissible
98 to supply the name and address of the source in a footnote as long as the words “or the
99 equivalent” are added to the reference.

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

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

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

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

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

115 2 The frontmatter of an APPA draft standard

116 2.1 Required frontmatter elements

117 The frontmatter of an APPA standard is informative, meaning it is not officially part of the
118 standard. Drafts should contain a frontmatter and main text, and follow the style outlined in this
119 manual. The frontmatter is paginated separately from the body of the draft, using Roman
120 numerals, e.g., i, ii, iii, etc. The body of the draft is paginated with Arabic numerals e.g., 1, 2, 3,
121 etc. Frontmatter elements *required* in the draft prior to going to ballot are the designation, the
122 title of the standard, the introduction, and draft copyright statements. A statement titled
123 “Important Notices and Disclaimers Concerning APPA Standards Documents” (liability,
124 translation, official statements, copyrights, photocopies, updating of APPA Standards
125 documents, errata, and patents) is also required. These are included in the APPA templates or
126 can be obtained by contacting APPA staff. **These shall not be altered.**

127 2.1.1 Draft labeling and designations

128 All drafts shall be clearly labeled to reflect their status as unapproved. The title of the document
129 shall start with the word *Draft*. The term APPA shall not be used in a title until a standard is
130 approved by the APPA Standards and Codes Council (ASCC). The draft designation and the
131 date of the draft shall appear in the upper right corner of each page of the draft. The designation
132 and date shall not be combined.

133 The APPA standards designation shall be structured as APPA XXX/DXX, where XXX
134 represents the specific designation and XX represent the specific draft version of that document.
135 Draft versions shall be maintained, and are most important during a ballot; the draft number
136 should be updated as least as often as the document is modified and/or recirculated.

137 2.1.2 Draft copyright statements

138 All APPA drafts are obligated to carry statements of copyright. The following information shall
139 appear on the first page of every APPA Standards draft (please note that [201X] shall be replaced
140 with the current year of distribution:

141 Copyright © 201X by APPA

142 1643 Prince Street

143 Alexandria, Virginia 22314, USA

144 All rights reserved. Published in the United States of America.

145 This document is an unapproved draft of a proposed APPA standard. As such,
146 this document is subject to change. APPA copyright statements SHALL NOT BE
147 REMOVED from this draft or approved APPA standards, or modified in any way.
148 Permission is hereby granted for officers from the APPA working groups or
149 committee to reproduce the draft document developed by the working group for

150 purposes of standardization consideration by ISO/IEC. APPA staff must be
151 informed of the submission for consideration prior to any reproduction. Prior to
152 adoption of this document, in whole or in part, by another development
153 organization, permission must first be obtained from APPA
154 (standards@appa.org). When requesting permission, APPA will require a copy of
155 the standard development organization's document highlighting the use of APPA
156 content. Other entities seeking permission to reproduce this document, in whole
157 or in part, must also obtain permission from APPA.

158 APPA Standards & Codes Administrator

159 1643 Prince Street

160 Alexandria, VA, 22314, USA

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

162 Copyright [201X] APPA. All rights reserved.

163 This is an unapproved APPA Standard Draft, subject to change.

164 2.1.3 Title

165 The title on the draft document shall be within the scope as stated on the ANSI Project Initiation
166 Notification System (PINS) form.

167 All titles of APPA drafts shall start with the word *Draft*, followed by

168 "Standard [for]" when the standard specifies mandatory requirements

169 "Recommended Practice [for]" when the standard provides recommendations

170 "Guide [for]" when the standard furnishes information

171 The initial letter of each word (except prepositions) should be capitalized.

172 2.2 Permission list

173 Permissions should be obtained for all material reprinted or excerpted from other sources. The
174 "Permissions List" should appear in the standard, including the footnote shown, under a flush left
175 header. "Copyrights and Permissions" in the following format. This segment should appear
176 above the "Abstract and Keywords" immediately following the title page.

177 "Copyrights and Permissions

178 Permissions have been granted as follows:^a

179 ^a Every effort has been made to secure permission to reprint borrowed material
180 contained in this document. If omissions have been made, please bring them to
181 our attention."

182 Portions of that standard reprinted with permission from company name, document name,
183 copyright symbol, date.

184 2.3 Abstracts and keywords

185 The inclusion of an abstract and keywords in APPA standards allows the documents to be
186 referenced in a wide range of bibliographic environments, thereby increasing their utility,
187 visibility, and availability to the public. An abstract and keywords shall be included immediately
188 following the title page of each standard. Abstracts should be based on the scope and purpose of
189 the standard as indicated on the ANSI PINS form and should specify what the designation
190 number of the project is. Abstracts should be no longer than 15 lines (12 pt. text), and should be
191 written in the passive voice. Keywords should highlight key terms and phrases from the text of
192 the draft standard.

193 2.4 Committee lists

194 At a minimum, a roster of the officers and members of the TSC that developed the document
195 shall be provided by the working group. Individuals or entities that also contributed to the
196 preparation of the document may be included in addition to the sub working group lists
197 (permission from entities shall be received prior to including the names in the draft).

198 The list of voting members of the balloting group is added by APPA staff during the publication
199 process. Only the balloters (individuals or entities) who vote (approval, disapproval, or
200 abstention) are listed in the standard. The following paragraph shall be placed in the frontmatter
201 of all APPA drafts, above the list of voting members of the balloting group, and shall reflect the
202 type of ballot that was conducted (individual entity):

203 The following members of the [individual/entity] balloting committee voted on this
204 standard. Balloters may have voted for approval, disapproval, or abstention.

205 2.5 Introduction

206 An introduction should give the history of the standard, a description of its purpose, and, if the
207 standard is a revision, an explanation of the principal changes from the previous edition. The
208 introduction should also explain the document structure for multipart standards or for documents
209 within a family of standards. An introduction is not an official or normative part of the proposed
210 standard and shall not contain requirements or recommendation; therefore, the following
211 statement shall appear in a box rule above the text:

[This introduction is not part of APPA [title of draft]]

212
213 If footnotes are necessary in an introduction, they shall be requested from APPA staff.

214 2.6 Acknowledgments

215 Permission to include special acknowledgments shall be requested from APPA staff.

216 2.7 Table of contents

217 A table of contents listing the main clauses (identified by one digit) and the first series of sub
218 clauses under each clause (identified by two digits) should be supplied. The next series of sub
219 clauses (identified by three digits) may be included when deemed appropriate. The table of
220 contents shall be generated automatically and should be frequently updated as the draft evolves.
221 List of tables and figures are normally not included in the table of contents, although particularly

222 lengthy documents might warrant their inclusion. Only the appropriate clauses, sub clauses and
223 normative and/or informative annexes should be listed.

224 3. The body of an APPA draft standard

225 3.1 Normative and informative clauses

226 Normative text is information that is required to implement the standard is therefore officially
227 part of the standard. Informative text is provided for information only and is therefore not
228 officially part of the standard.

229 Normative text (information required to implement the standard) includes the following:

- 230 - The main clause of the document including figures, tables and equations
- 231 - Footnotes to tables
- 232 - Footnotes to figures
- 233 - Annexes marked “normative”

234 Informative text (text provided for information only) includes the following:

- 235 - Frontmatter
- 236 - Notes to text, tables and figures
- 237 - At the first instance of a note associated with text, a table, or a figure, the following
238 should appear:

239 NOTE – Notes to text, tables, and figures are for information only and do not contain
240 requirements needed to implement the standard.

- 241 - Annexes marked “informative” e.g., Bibliography

242 **Interspersed normative and informative text is not allowed.** As such, clauses nor sub clauses
243 shall be labeled as informative. Contact APPA staff early in the process if there are questions as
244 to whether material in the draft should be labeled as normative or informative.

245 4. Word Usage

246 4.1 Homogeneity

247 Uniformity of structure, style, and terminology should be maintained not only within each
248 standard, but also within a series of associated standards. The structure of associated standards
249 and the numbering of their clauses should be identical, as far as possible. Analogous wording
250 should be used to express analogous provisions; identical wording should be used to express
251 identical provisions.

252 The same term should be used throughout each standard or series of standards to designate a
253 given concept. The use of an alternative term (synonym) for a concept already defined should be
254 avoided. As far as possible, only one meaning should be attributed to each term used.

255 4.2 Shall, should, may, and can

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

258 Note that the use of the word **must** is deprecated and shall not be used when stating mandatory
259 requirements; **must** is used only to describe unavoidable situations. The use of the word **must** is
260 deprecated and shall not be used when stating mandatory requirements; **must is only used in**
261 **statements of fact**.

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

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

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

269 A working group may choose to include the definitions of those terms within a draft standard. If
270 so, the following text may be reproduced (under an early sub clause titled “Word usage” for the
271 benefit of users of the standard.

272 “In this document, the word **shall** is used to indicate a mandatory requirement. The word
273 **should** is used to indicate a recommendation. The word **may** is used to indicate a
274 permissible action. The word **can** is used for statements of possibility and capability.”

275 4.3 That and which

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

280 4.4 Gender-neutral language

281 APPA uses generic titles (e.g., chair rather than chairman) in standards. The following practices
282 shall apply:

- 283 a) When writing in the third person, the phrase **he or she** should be used. The male
284 or female pronoun alone or the variations **he/she** or **s/he** should not be used.
285 Also, the pronoun **they** should not be used as a singular pronoun.
- 286 b) If a particular sentence becomes cumbersome when **he or she** is used, the
287 sentence should be rewritten in the plural or completely rewritten to avoid using
288 pronouns. The indefinite pronoun **one** should be avoided. In references to a
289 company, the pronoun **it**, not **we** or **they**, should be used.

290 **4.5 “Absolute” verbiage**

291 Avoid making guarantees if there is a possibility of unforeseen situations or circumstances
292 alerting an outcome. Review the text for any explicit or implicit guarantees made within the
293 document.

294 For example, words such as “ensure,” “guarantee,” “always,” etc., should be modified if they are
295 inaccurate. Substitutions might include “maximize” or “minimize” or “often.”

296 **4.6 Use of the first- or second-person forms of address**

297 The first-person form of address (**I, we**) or the second-person form of address (**you**) should *not*
298 be used or implied in standards.

299 **5. Order of clauses**

300 The first clause of a standard, Clause 1, shall always be an overview (except for amendments and
301 corrigenda, which do not usually have an overview, scope, or purpose). If the standard contains
302 normative references and definitions, they shall be Clause 2 and Clause 3, respectively. The
303 clauses that follow Clause 2 and 3 can be ordered in any way by the working group. If clause
304 and sub clause titles begin with numbers, they should be spelled out, unless unavoidable.

305 **5.1 The overview of the draft**

306 **5.1.1 General**

307 The overview includes the scope of the standard which shall be within the scope of that given on
308 the PINS form. The overview may include optional topics such as a purpose, applications, and
309 other areas that the working group considers relevant. These optional topics should be presented
310 as separate sub clauses of the overview; they should not be lumped into the scope.

311 If the overview includes the scope and optional topics, the clause shall be titled Overview. If the
312 overview includes only the scope, the clause shall be titled Scope, without any further
313 subdivision.

314 **5.1.2 Scope**

315 The scope of the standard shall explain in statements of fact what is covered in the standard and,
316 if necessary, what is not covered in the standard – in other words, the technical boundaries of the
317 document. The scope should be succinct so that it can be abstracted for bibliographic purposes.

318 For new and revision projects, the scope of the draft shall be within the scope of that given on the
319 PINS form, as determined by the TSC.

320 For amendments and corrigenda, there is normally no scope in the draft. Therefore, on the PINS
321 form, the scope shall state what the amendment/corrigendum is changing.

322 Regardless of project type, the scope of the draft has to be within the scope of the project given
323 on the PINS form.

324 Please note the distinction of the scope from the purpose of the standard discussed in 5.1.3.

325 5.1.3 Purpose

326 A paragraph describing the purpose of the standard is not mandatory in the draft. However, if
327 included, the purpose of the standard and its intended application shall be included in a separate
328 sub clause. The purpose shall explain why the standard project is needed.

329 For new or revision projects, the purpose (if included) of the draft shall be within the parameters
330 of the purpose given on the PINS form, as determined by the TSC.

331 For amendments and corrigenda, there is normally no purpose in the draft standard. Therefore,
332 on the PINS form the purpose shall state why the changes are being made.

333 Please note the distinction of the purpose from the scope of the standard as discussed in 5.1.2.

334 5.2 Normative references

335 5.2.1 Citation as a normative reference

336 Normative references are those documents that contain material that must be understood and
337 used to implement the standard. Thus, normative references are indispensable when applying the
338 standard. **Each normative reference shall be cited in normative text and the role and**
339 **relationship of each referenced document shall be explained in the body of the standard. If**
340 **a reference is not specifically cited in the normative text of the document, then it shall not**
341 **be listed in the normative reference clause.** In such cases, it shall be listed in the first or final
342 informative annex, titled Bibliography (see item g) below.

343 The following guideline shall be followed when creating the normative reference clause:

- 344 a) In an amendment, when inserting an introductory paragraph into the normative references
345 clause, developers should take special care in determining whether the intent of the base
346 standard is maintained in the amendment.
- 347 b) APPA and other nationally or internationally recognized standards developing
348 organizations (SDOs) are the preferred source of normative references. Documents
349 published by other organizations may be cited provided that the following is true:
- 350 1) The document is judged by the working group to have wide acceptance and
351 authoritative status.
- 352 2) The document is publicly available at reasonable cost.
- 353 c) Dated and/or undated references are allowed in standards. Using undated references
354 helps eliminate the burden of continuous updates to align standards as they are revised,
355 while ensuring that the most up-to-date information on technologies and statues is
356 referenced (when appropriate). Dated references can be used in certain circumstances,
357 such as when a high degree or figure of another document even if an undated version of
358 the document is listed in the normative references.
- 359 d) The responsibility of determining whether a reference should be dated or undated lies
360 with the working groups, who shall determine what is best during implementation of a
361 given standard, and therefore what is best for the standard's users.
- 362 e) Using documents that are not standards presents the problem that they might be revised
363 with notice in a manner that might adversely affect any standard that lists them as
364 normative references. Documents that are cited as normative references, but that are

- 365 developed by organizations that are not nationally or internationally recognized SDOs,
366 shall include the edition or date of publication in the citation.
- 367 f) If the standard is intended for international adoption, the working group should consider
368 requirements for normative references by international organizations, such as
369 International Organization for Standardization (ISO) and the International
370 Electrotechnical Commission (IEC). These requirements may include procedures for
371 justification of normative references that are not international standards. Contact APPA
372 staff (standards@appa.org) for information about specific requirements.
 - 373 g) Documents to which reference is made only for information or background, and
374 documents that served merely as references in the preparation of the standard, are not
375 normative references. Such document may, however, be included in the bibliography.
 - 376 h) Reference to withdrawn standards may be made; however, sponsors are cautioned that
377 withdrawn standards may contain obsolete or erroneous information and may be difficult
378 to retrieve.
 - 379 i) Working groups shall not use unpublished draft standards as normative reference unless
380 they are dated, readily available, and retrievable.

381 5.2.2 Structure of the normative references clause

382 The following guidelines shall be followed when structuring the normative references clause:

- 383 a) The normative references clause shall be introduced with the following paragraph:
384 “The following referenced documents are indispensable for the application of this
385 document (i.e., they must be understood and used, so each referenced document is cited
386 in text and its relationship to this document is explained.) For dated references, the
387 edition cited applies. For undated references, the latest edition of the referenced
388 document (including any amendments or corrigenda) applies.”
- 389 b) APPA staff will list the information (i.e., title) for the most current edition of the undated
390 material cited. In some cases, the most current edition is not the one required. It is also
391 important for the sponsor to remember that the dated edition listed in the balloted
392 document will be the one that appears in the published document. Therefore, it is the
393 responsibility of the sponsor to determine not only which edition of a document is
394 applicable in each case, but also to ensure that the balloted document lists the correct
395 edition.
- 396 c) The working groups shall endeavor to supply complete and current information for
397 normative references. Note that APPA staff cannot verify that normative references are
398 the updated editions of documents (i.e., undated references) are accurate; therefore, it is
399 up to the working groups to consult the latest editions to see if they still apply.

400 5.2.3 Style for standards reference entries

401 Normative references shall be listed in alphanumeric order by designation, including the full
402 title. Documents that are not standards, and that are cited as normative references, shall include
403 the edition or date of publication in the citation. A footnote should be inserted in the text after
404 the first cited normative reference in order to tell the reader where the references can be
405 obtained.

406 References should be cited by designation in the text, in tables, in figures, or in notes at the point
407 where the reference applies. Note that designations shall be identified as trademarks (® or ™, as
408 appropriate) at the first citation of each designation in the frontmatter and in the body of the
409 draft.

410 5.2.4 Non-standards citations

411 Refer to *The Chicago Manual of Style* for rules on citing sources other than standards.

412 For citing Internet sources, the following format should be used where [entity] is replaced with
413 the name of the organization and [url] is replaced by the Internet location:

414 “...is available from the [entity] website [url].

415 “(See the information at the following Internet location [url].”

416 The url should be the most stable location whenever possible to avoid inadvertent or intentional
417 changes that would affect the site name, i.e., use the index to the page rather than the page itself.

418 The working group shall obtain permission where needed. Contact APPA staff
419 (standards@appa.org) in instances where legal agreements are required (see Clause 5).

420 If a document listed in the bibliography or normative reference is accessed from Internet, the
421 document title, date, version, and other pertinent information should be listed, followed by a
422 footnote that gives the Internet location.

423 5.3 Definitions

424 5.3.1 General terminology usage

425 English words should be used in accordance with their definitions in the latest edition of
426 *Merriam-Webster’s New Collegiate Dictionary*. Working groups are strongly encouraged to use
427 definitions that already exist instead of creating new definitions or slightly modifying existing
428 definitions. During balloting, working groups may be asked to validate the use and presentation
429 of terms.

430 5.3.2 Construction of the definitions clause

431 A definition clause is typically Clause 3 (unless the standard does not contain normative
432 references, in which case the definitions clause would be Clause 2). Definitions should appear in
433 alphabetical order, and the term defined should be written out completely and should not be
434 inverted. Each definition should be a brief, self-contained description of the term in question and
435 shall not contain any other information, such as requirements or elaborative text. The term
436 should not be used in its own definition.

437 All terms defined in APPA standards are incorporated into the APPA Standards Definitions
438 Database. For this reason, it is important that terms and definitions have as general an
439 application as possible. Definitions should not include references to other parts of the standard.
440 An informative note may be provided to refer the user to another part of the standard. Terms
441 defined in other standards may be used in APPA standards as long as they are properly cited and
442 the proper permission release form is received. After the definition, the source shall be cited in

443 parentheses. It is the work group's responsibility to obtain the appropriate permissions if a
444 standard uses a term from another source.

445 The definition should follow the defined term as a sentence preceded by a colon. Sub definitions
446 of a term should be marked as (A) or (B), etc. Cross-references should occur after the definition
447 and may consist of the following classes, in the order shown: *Contrast:*, *Syn:*, and *See also:*.
448 *Contrast* refers to a term with an opposite or substantially different meaning. *Syn:* refers to a
449 Synonymous term. *See:* refers to a term where the desired definition can be found. *See also:*
450 refers to a related term. The cross-references listed under these headings should be in
451 alphabetical order, in bold type, and separated by semicolons when there are more than one.
452 Abbreviations/acronyms should be spelled out at the first use.

453 5.3.3 Acronyms and abbreviations

454 Acronyms and abbreviations can be used to save time and space in the document. If the draft
455 makes extensive use of acronyms and abbreviations, a sub clause within the definitions clause
456 titled "Acronyms and abbreviations" may be provided. If acronyms and abbreviations are
457 included in the definitions clause, Clause 3 should be titled "Definitions and abbreviations" and
458 3.1 and 3.2 titled "Definitions" and "Acronyms and abbreviations," respectively.

459 Acronyms and abbreviations, followed by the full term only, should be listed in alphanumeric
460 order.

461 With text, the acronym or abbreviation should follow the first use of the full term (the first time
462 in the introduction, then the first time in the body of the document, and then the first time in any
463 annexes in which the acronym appears). The abbreviation or acronym should be placed in
464 parenthesis when following the full term.

465 Exceptions to the convention listed above are approved SI units. SI unit symbols are not
466 abbreviations and shall not be included in a list of abbreviations and acronyms. The treatment of
467 letter symbols for units (e.g., mm for millimeter), letter symbols for quantities (e.g., R for
468 resistance), and mathematical symbols (e.g., log for logarithm).

469 5.4 Annexes

470 5.4.1 Ordering annexes

471 Normative and informative annexes shall be referred to as such [e.g., Annex A (normative),
472 Annex B (informative)] in their titles and in the table of contents. Annexes should be referenced
473 in the text by the word Annex and its letter only (e.g., see Annex A). Annexes should appear in
474 the order in which they are referenced in the body of the standard (e.g., the first annex should be
475 Annex A, the second Annex B, and so on). This means that normative and informative annexes
476 might be intermixed. An exception to this rule is the bibliography. The bibliography should be
477 either the first or last annex of the standard. If a glossary exists, it should either be the last annex
478 or it should immediately precede the bibliography (if the bibliography is the last annex).

479 5.4.2 Normative annexes

480 Normative annexes are official parts of the standard that are placed after the body of the standard
481 for reasons of convenience or to create a hierarchical distinction. In many cases, normative

482 annexes are used for conformance test procedures, tables, or printed source code. Normative
483 annexes may also be used for content-specific applications of the standard.

484 5.4.3 Informative annexes

485 Informative annexes are included in a standard for information only. Standards writers should
486 carefully consider the nature of the material placed in informative annexes. Informative annex
487 material is considered part of the balloted document and copyrighted to APPA. As such, it shall
488 be submitted to the TSC and is not subject to substantive or technical change after approval.

489 An example of an informative annex in bibliography. See Clause 12 for information about
490 bibliographic style.

491 5.4.4 Indexes

492 As most standards are now published digitally, the ability to search electronically for terms
493 makes an index largely unnecessary. APPA staff cannot guarantee that an index created for a
494 draft standard will be published when the standard is approved; the quality of the index, its
495 usefulness, and whether it can be properly updated or not will be factors in the decision of
496 whether or not to include it. Working groups interested in including an index should consult *The*
497 *Chicago Manual of Style* and APPA staff.

498 6. Numbering the clauses and sub clauses of a standard

499 6.1 Body clauses

500 The body of a standard is usually divided into several major clauses that are further divided into
501 sub clauses. The APPA Standards system for numbering clauses uses Arabic numerals in
502 sequence. A sub clause should be numbered by adding a decimal point and number to the clause
503 number (e.g., 5.1). Sub clauses may be divided into further sub clauses by adding a second
504 decimal point and number (e.g., 5.1.1). Five numbers separated by a decimal point is the
505 maximum acceptable subdivision (e.g., 5.1.1.1.1). If necessary, the material should be
506 reorganized to avoid subdivisions beyond this point. An exception to this numbering is allowed
507 for.

508 All clause and sub clause headings should consist of a number and a concise, meaningful, title.
509 Text immediately follows the sub clause title, but on a new line. Hanging paragraphs (i.e.,
510 numbered paragraphs following a main clause head or main subhead) should not be used since
511 reference to the text would be ambiguous. It may be necessary to include a subhead with the title
512 “General” to avoid instances of hanging paragraphs, as shown in Figure 1.

513

4. Example of hanging paragraph

Hanging paragraph would follow the main clause head. All text following this head is a part of the clause, including all the text within sub clauses, as reference to this paragraph would be ambiguous.

4.1 Subclause head
Sub clause text.

5. Hanging paragraph corrected
5.1 Sub clause head
Text that is no longer a hanging paragraph.
5.2 Sub clause head
Sub clause text

514 **Figure 1 – Hanging paragraphs**

515

516 The term *clause* should be used when referring to major clause headings (e.g., “*see Clause 5*”) or
517 at the beginning of a sentence. All other cross-references should be made by simply referring to
518 the number (e.g., “see 5.1” not “see sub clause 5.1”).

519 Standards are not published with line numbers (although numbers should be included in balloted
520 drafts). Therefore, the working group should use only clause or sub clause numbers in cross-
521 references.

522 **6.2 Numbering annexes**

523 Consecutive capital letters and a title should be used to identify each annex. Text should be
524 organized and numbered with the following exception: clause and sub clause numbers should be
525 prefaced with the identifying letter of the annex, followed by a. For standards containing only
526 one annex, the letter A should appear in its title and should preface the clause and sub clause
527 numbers in the text. Figures and tables included in annexes should also carry the identifying
528 letter of the annex in which they appear, followed by a period. For example, the first figure in
529 Annex C should be identified as Figure C.1.

530 **6.3 Lists**

531 Lists in a sub clause may be ordered or unordered. An ordered list of items within a sub clause
532 should be presented in outline form, with items lettered a), b), c), etc. If a subdivision of the
533 items is necessary, 1), 2), 3), i), ii), iii); dashed subdivision items, etc., should be used to form a
534 tiered list. Only one occurrence of a level of an ordered list may be presented in any sub clause
535 to avoid confusing cross-references [e.g., it is acceptable to have an a) level list followed by a 1)
536 level list, etc., but there should not be more than one a) level list in the same clause or sub
537 clause]. As an alternate solution, authors may want to consider adding an additional sub clause.
538 Dashed lists can also be used instead of an ordered list if the list consists of short, unordered
539 items. Closing punctuation should be omitted or phrases. Punctuation should be used for
540 sentences. Lists shall be preceded by an introductory sentence explain the relevance of the list.
541 Figure 2 provides examples of different levels in an ordered list.

Items that are included on the nameplate include the following:
a) Name of the manufacturer

- | |
|---|
| <ul style="list-style-type: none"> b) Rated frequency, if other than 60 Hz c) Connection chart showing <ul style="list-style-type: none"> 1) Full winding development 2) Taps 3) Pole and pocket location d) Instruction book number e) Mutual reactance (for linear coupler transformers) f) Self-impedance (for linear coupler transformers) <ul style="list-style-type: none"> 1) Resistance 2) Reactance 3) Impedance <ul style="list-style-type: none"> i. For volts ii. For amperes |
|---|

542 **Figure 2 – Example of a tiered list**

543

544 7. Quantities, units, and letter symbols

545 7.1 Quantity

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

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

555 7.2 Numbers

556 The following should be observed:

- 557 a) The decimal marker should be a dot on the line (decimal point). This applies even when
 558 the standard in question is intended for international adoption (e.g., adoption by
 559 ISO/IEC).
- 560 b) For numbers of magnitude less than one, a zero should be placed in front of the decimal
 561 point (e.g., 0.5).
- 562 c) In general text, isolated numbers less than 10 should be spelled out. However, in
 563 equations, tables, figures, and other display elements, Arabic numerals should be used.
 564 Numbers applicable to the same category should be treated alike throughout a paragraph;
 565 numerals should not be used for the unit symbol even if the surrounding text uses a
 566 sloping (*italic*) font.

- 567 d) The value of a quantity shall be expressed by an Arabic numeral followed by a space and
 568 the appropriate unit name or symbol. An upright (Roman) type font should be used for
 569 the unit symbol even if the surrounding text uses a sloping (*italic*) font.
- 570 e) If tolerances are provided, the unit shall be given with both the basic value and the
 571 tolerance (150 m \pm 5 mm). Ranges should repeat the unit (e.g., 115 V to 125 V). Dashes
 572 should never be used because they can be misconstrued as subtraction signs.

573 7.3 Metric system

574 APPA policies call for measured and calculated values of quantities to be expressed in metric
 575 units [SI (Système International d'Unités)]. Proposed new standards and revised standards
 576 submitted for approval should use metric units exclusively in the normative portions of the
 577 standard. Inch-pound data may be included in parentheses after the metric unit if the working
 578 group believes that the audience for this document would benefit from the inclusion of inch-
 579 pound data, based on concerns for safety and clarity. Metric units shall always be the primary
 580 unit of measurement.

581 7.4 Letter symbols

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

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

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

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

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

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

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

598 *Correct*: “Polarity shall be additive for all transformers with an apparent power rating of
 599 200 kVA.”

600 8. Tables

601 8.1 Labeling and presentation of tables

602 Tables provide a clear and concise way of presenting large amounts of data in a small space.
603 Working groups shall obtain permission to use any table from another source, including from a
604 manufacturer, prior to using it in a draft standard (see 1.2).

605 Format tables should be given a number and a concise title, and they should be cited in the text
606 with the word *Table* followed by the number (see 8.2 for information on the numbering of
607 tables.) Tables should be boxed, ruled, and organized to fit in a single page, with the term
608 “Table” and the table number, followed by an em dash (—) and the table title, all on one line,
609 centered above the top border of the table, as follows: “Table 1—Title”. If a table must carry
610 over to more than one page, complete column headings should be repeated at the top of
611 successive pages. The table number and title, with the term, “continued,” in parentheses and in
612 italics, should be repeated and centered above the top border of the table on the successive pages,
613 as follows: “Table 1—Title (*continued*).”

614 8.2 Numbering and capitalization in tables

615 Tables should be consecutively numbered in a separate series and in the order of their reference
616 in the text (e.g., Table 1, Table 2, Table 3, etc.). Hyphenated numbers should be used except in
617 standards of considerable length. In the latter case, it is appropriate to label the first table in a
618 clause with the number 1 preceded by the clause number (e.g., Table 6-1, Table 6-2, etc.).

619 Tables included in annexes should also carry the identifying letter of the annex in which they
620 appear, followed by a period. For example, the first table in Annex C should be identified as
621 Table C.1.

622 Tables should be referenced in the text by the word “Table” and their number only (e.g., “see
623 Table 1”). If referring to two or more tables in the same sentence, each should be numbered
624 separately. For example, use “see Table 1, Table 2, and Table 3,” instead of “see Tables 1
625 through 3.”

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

- 627 - Table titles
- 628 - Column and line headings in tables

629 8.3 Presentation of data and table format

630 8.3.1 Units of measure

631 Units of measure shall always be provided in the title (in parentheses); or preceded by a solidus
632 in the column headings (e.g., for volts either $E (V)$ or E/V) would be acceptable; or in a NOTE.
633 The same units of measure shall be used throughout each column; millimeters with centimeters
634 or seconds with minutes. To save space, abbreviations and letter symbols should be used in
635 column and line headings wherever possible.

636 8.3.2 Numerical values

637 Digits should be separated into groups of three, counting from the decimal point toward the left
638 and right. The groups should be separated by a space, and not a comma, period, or dash. If the
639 magnitude of the number is less than one, the decimal point should be preceded by a zero. In

640 numbers of four digits, the space is not necessary, unless four-digit numbers are grouped in a
641 column with numbers of five digits or more.

642 Examples:

643 73 722 7372 0.133 47

644 All numbers should be aligned at the decimal point. Only as many significant digits should not
645 be used as the precision of data justifies. Decimal fractions should be used in tabulations unless
646 fractions are commonly used in the field.

647 Common fractions and decimal fractions shall not be combined in the same table. An em dash
648 should be used to indicate the lack of data for a particular cell in a table.

649 8.3.3 Notes and footnotes to tables

650 A table note (a note to a table) is informative. A table footnote is normative. This distinction
651 should be kept in mind when determining whether information should go in a table note or a
652 table footnote.

653 A table note should be set immediately following the table to which it belongs, enclosed within
654 the boxed table, above the bottom border of the table. The text in the table note shall not contain
655 mandatory requirements. Also, important information on safety, health, or the environment
656 related to the table shall not be included in table notes.

657 Table notes should appear in the following order:

658 a) *General notes and specific notes.* General notes apply to the entire table and
659 should be introduced by “NOTE—“ set in all, uppercase letters. Specific notes
660 should refer to specific material or parts of the table and should also be introduced
661 by “NOTE—“ set in all, uppercase letters. Multiple notes in sequence should be
662 numbered “NOTE1—“, “NOTE2—“, etc.

663 b) *Crediting source.* Use either of the following credit lines.

664 Reprinted with permission from... (Use when data is derived from another source
665 from which permission to reproduce material has been obtained.)

666 Source: (Use when data is derived from another APPA standard.)

667 A table footnote always contains normative information. A table footnote should be set outside
668 the boxed table to which it belongs, immediately below the bottom border. The text in the
669 footnote shall contain mandatory requirements. Any important information on safety, health, or
670 the environment related to the table shall be included in the footnote.

671 A table footnote should be marked with lowercase letters stating with “a” for each table.

672 8.4 Informal tables

673 Simple tabulations that are not referred to outside of the sub clause in which they appear may be
674 organized into short informal tables that do not exceed five lines in depth. However, it is
675 recommended that all tables be numbered and titled, if possible.

676 **9. Figures**677 **9.1 Requirements for creating figures**

678 Figures may be created using any of a number of graphic programs. All graphics should be
 679 submitted in the original editable format. For specific requirements concerning the preparation
 680 of figures, see Table 1.

681 **Table 1 —Figure preparation and requirements**

Resolution	Black and white: 300 DPI (dots per inch) Grayscale: 150 DPI Line art: 600 DPI Black and white photograph: 300 DPI
Size	Maximum width: 7.5” Minimum length: 10”
Color	Color in figures shall not be required for proper interpretation of the information.
Line drawings	Save line art as black and white.
Line drawings with shaded areas	Save line drawings with shaded areas as grayscale.
Line weight	Lines should be of an adequate thickness, at least 0.5 points to 1.0 points. Hairline rules may appear broken up on screen or in printed document, or not show up at all.
Photographs	Save photographs as grayscale.
Fonts in graphics	All fonts shall be embedded into the figure. Times New Roman and Arial fonts are preferred. Uncommon fonts shall be avoided or, at a minimum, provided to APPA staff. Letter symbols not normally capitalized should always be lowercase.
Text point size	APPA uses 12 point type size. All capital letters or mixed uppercase and lowercase letters may be used, depending on the amount of text, as long as the presentation is consistent throughout the document.
Cropping	There should be no borders around the graphic. Remove any excess white space around the image edges.
Original art	Original source files (from the graphics programs used) should also be submitted. The original art files should be grouped separately from those saved in the formats previously listed. All original art files will be archived for the working group.
Naming graphic files	A figure should be labeled <i>Figure</i> , followed by a number (e.g., FIG1.jpeg). Multiple figures under a single figure number (e.g., Figure 2(2) and Figure 2(b)) should be saved as separate files with corresponding names (e.g., FIG2B.jpeg). All figures should be submitted to the APPA staff.

682

683 Working groups should create figures using programs that create vector output. Figures created
 684 in programs that do not support vector illustrations may result in bitmapped graphics that do not
 685 translate well into other applications, that may not scale appropriately, or that may not retain
 686 their quality. If it is unavoidable, however, a jpeg version of the file may be submitted.

687 9.2 Figure numbering and titles

688 Figures should be numbered consecutively in a separate series and in the order of their reference
 689 in the text (e.g., Figure 1, Figure 2, Figure 3). Hyphenated numbers should not be used except in
 690 standards of exceptional length. In the latter case, it is appropriate to label the first figure in a
 691 clause with the number 1, preceded by the clause number (e.g., Figure 6-1, Figure 6-2, Figure 6-
 692 3).

693 Figures included in annexes should carry the identifying letter of the annex in which they appear,
 694 followed by a period. For example, the first figure in Annex D should be identified as Figure D-
 695 1.

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

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

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

705 9.3 Notes and footnotes to figures

706 A note to a figure is informative; a footnote to a figure is normative. This distinction should be
 707 kept in mind when determining whether information should go in a figure note or a footnote.

708 *Important information on safety, health, or the environment shall not be included in notes to*
 709 *figures.* Notes to a figure should appear in the following order:

710 *General notes and specific notes:* General notes apply to the entire figure and should be
 711 introduced by “NOTE—“ set in upright capital letters. Specific notes should detail
 712 material or parts of the figure and should also be introduced by “NOTE—“ set in upright
 713 capital letters. Multiple notes in sequence should be numbered “NOTE 1—“, “NOTE
 714 2_“, etc.

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

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

718 *Source:* (Use when figure is taken from another APPA standard.)

719 Footnotes to figures may contain normative information. They should be marked with lowercase
 720 letters starting with “a” for each figure.

721 Both figure notes and figure footnotes should be placed under the figure, but above the caption.

722

10. Mathematical expressions

723

10.1 Letter symbols and units

724 Letter symbols defined in applicable APPA standards (see Clause 7) should be used in preparing
725 mathematical expressions. (See 7.4 for a discussion of letter symbols.)

726 All terms shall be defined, including both quantities and units, in a tabulation following the
727 equation [see Equation (1)]. If referring to two or more equations in the same sentence, each
728 should be named separately. For example, use “see Equation (1), Equation (2), and Equation
729 (3),” instead of “see Equations 1 through 3.”

730 Equations in annexes should be numbered beginning with the letter of the annex where they are
731 found. For example, the first equation in Annex C would be numbered “(C.1)” and the reference
732 to it would be to “see Equation (C.1).”

733

10.2 Numbering of equations

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

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

741 Equations in annexes should be numbered beginning with the letter of the annex where they are
742 found. For example, the first equation in Annex C would be numbered “(C.1)” and the reference
743 to it would be “see Equation (C.1).”

744

10.3 Presentation of equations

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

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

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

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

758 Quantity symbols (including the symbols for physical constants), subscripts or
759 superscripts representing symbols for quantities, mathematical variables, and indexes are
760 set in *slant (Italic)* text.

761 Unit symbols, mathematical constants, mathematical functions, abbreviations, and
762 numerals are set in upright (Roman) text.

763 Example: $x = r \sin \theta$

764 Where

765 x is the x-coordinate on a Cartesian plane

766 r is the length of the position vector

767 θ is the angle between the position vector

768 ϕ is the angle from the plane in which both the axis and the position vector lie to either of the
769 coordinate planes including that axis.

770 Table 2 lists a number of functions and operators that are set in upright (Roman) text.

771

772 **Table 2—Examples of functions and operators set in upright (Roman) text**

arg (argument)	hom (homology)	min (minimum)
cos (cosine)	Im (Imaginary)	mod (module)
cot (cotangent)	inf (inferior)	Re (Real)
det (determinant)	ker (kernel)	sin (sine)
diag (diagonal)	lim (limit)	sup (superior)
dim (dimension)	log (logarithm)	tan (tangent)
exp (exponential)	max (maximum)	var (variance)

773

774 10.4 Quantity and numerical value equations

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

778 A quantity equation is valid regardless of the units used with the substituted values, once any
779 unit conversions and prefix scaling factor have been taken into account. For example, $F = ma$ is
780 always correct.

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

785 $t/^{\circ}C = T/K - 273.15$

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

787 $\{t\}_{^{\circ}C} = \{T\}_K - 273.15$

788 11. Notes, footnotes, examples, warnings, and cautions

789 11.1 Notes

790 Notes are informative. Notes are explanatory statements used in the text for emphasis or to offer
 791 informative suggestions about the technical content of the standard. Notes provide additional
 792 information to assist the reader with a particular passage and shall not include mandatory
 793 requirements. Because a note in the text is an informative part of the approved standard,
 794 important information on safety, health, or the environment shall not be included. A note should
 795 follow that paragraph in which it belongs, and shall be set apart from the text by introducing the
 796 statement with the capitalized word “NOTE—.” Within each sub clause, notes should be
 797 numbered sequentially, i.e., “NOTE 1—“, “NOTE 2—“, etc. The one exception is when notes
 798 appear in the definitions clause. Notes in the definitions clause should only be numbered if there
 799 are multiple notes that apply to a single definition. That is, each definition is treated as if it were
 800 its own sub clause.

801 “Note that” is normative and is translated to mean “pay special attention to.” “Note that” is
 802 usually part of a paragraph while “NOTE—“ is set apart as its own paragraph.

803 11.2 Footnotes

804 Footnotes are informative. Footnotes in text may be included in a standard only for information,
 805 clarification, and/or aid applicable to the use of the standard. Mandatory requirements shall not
 806 be included in text footnotes because these footnotes are not officially part of the standard. Note
 807 that footnotes to tables and figures follow different rules (see Clause 8 and Clause 9) and may
 808 contain normative information.

809 Footnotes in the frontmatter should be indicated separately from the body footnotes. Frontmatter
 810 footnotes should be indicated with lowercase letters.

811 Footnotes in the body and annexes should be numbered consecutively using Arabic numerals.
 812 When there are footnotes within tables and figures, they should be lettered. If a footnote is cited
 813 more than once, each additional citation should refer back to its first mention as follows:

814 ² See Footnote 1.

815 11.3 Examples

816 Examples may be used as illustrations to foster understanding of the standard. Examples are not
 817 a normative part of the standard; therefore, requirements shall not be included in the text of the
 818 sample.

819 11.4 Warnings and cautions

820 *Warnings* call attention to the use of materials, processes, methods, procedures, or limits that
 821 have to be followed precisely to avoid injury or death.

822 *Cautions* call attention to methods and procedures that have to be followed to avoid damage to
 823 equipment. A warning is more important than a caution. If both are to be included in the same
 824 clause or sub clause, the warning shall precede the caution.

825 Warnings and cautions should start with a clear instruction, followed with a short explanation (if
 826 necessary). If the warning or caution is of a general nature (and is applicable throughout the
 827 text), it should be placed at the start of the text. This avoids the necessity of repeating the same

828 warning or caution frequently throughout the text. Warnings and cautions shall not be placed in
829 informative text or notes.

830 12. Bibliography

831 12.1 General

832 Complete and current information for bibliographic entries shall be supplied by the working
833 group (including publication dates, etc.). The bibliography shall always be an informative
834 lettered annex that appears as either the first or last annex of the standard.

835 The bibliographic items are cited in text, tables, figures, or notes, the citation should be placed at
836 the point where reference is made to them. If the item is a standard, the designation (e.g., APPA
837 Std 1234.5-2016) and bibliographic reference number (e.g., [B4]) should be cited. If the
838 reference is to an article, book, or other type of publication included in the bibliography, the title
839 or author of the publication and the bibliographic reference number should be cited.

840 The bibliography should be ordered alphanumerically, without respect to the type of publication
841 being cited.

842 12.2 Citing standards in a bibliography

843 Standards listed shall include designation and title. They can be either dated or undated,
844 whichever is appropriate to a particular entry.

845 12.3 Article in periodicals

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

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

- 849 a) Last name of author or authors and first name or initials, or name of organization
- 850 b) Title of article in quotation marks
- 851 c) Title of periodical in full or set in italics
- 852 d) Volume, number, and, if available, part
- 853 e) First and last pages of article
- 854 f) Date of issue

855 12.4 Books

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

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

- 858 a) Last name of author or authors and first name and initials, or name of
859 organization. Note that for a book with two or more authors, only the first-listed
860 name is inverted in the bibliography entry.
- 861 b) Title of the book (in italics)
- 862 c) Edition number (if applicable)
- 863 d) Place of publication (city)
- 864 e) Name of publisher
- 865 f) Year of publication

866 g) First and last page of the reference

867 13. Amendments, corrigenda, and errata

868 13.1 General

869 There are several ways of changing a published standard:

- 870 a) Amendment: An amendment that adds to, removes from, or alters material in a
- 871 portion of an existing APPA standard and may make editorial or technical
- 872 corrections to that standard.
- 873 b) Corrigendum: A document that only corrects editorial errors, technical errors, or
- 874 ambiguities in an existing APPA standard.
- 875 c) Erratum: A document that contains only corrections of errors introduced during
- 876 the publishing process of an existing APPA standard. Errata are not balloted
- 877 documents and are always available for free on the APPA website under
- 878 Standards and Codes. For information on issuing errata, contact APPA staff at
- 879 standards@appa.org.

880

881 APPA staff can assist working groups in determining whether an addendum or revision is
882 appropriate.

883 13.2 Amendment and corrigenda

884 Amendments and corrigenda are independent projects, processed with separate PINS, and
885 balloted independently in accordance with the requirements of these procedures.

886 Amendments and corrigenda provide explicit instructions on how to change the text in an
887 existing base standard or an existing amendment. The editing instructions are important because
888 the user should understand how the changes affect the base standard, particularly because these
889 documents ultimately will be incorporated into the base standard.

890 Both types of documents have the same format. The following text shall appear at the beginning
891 of either an amendment or a corrigendum:

892 NOTE—The editing instructions contained in this <amendment/corrigendum> define
893 how to merge the material contained therein into the existing base standard and its
894 amendments to form the comprehensive standard.

895 The editing instructions are shown in ***bold italic***. Four editing instructions are used:
896 change, delete, insert, and replace. ***Change*** is used to make corrections in existing text
897 and tables. The editing instruction specifies the location of the change and describes
898 what is being changed by using ~~striketrough~~ (to remove old material) and underscore (to
899 add new material). ***Delete*** removes existing material. ***Insert*** adds new material without
900 disturbing the existing material. Insert adds new material without disturbing the existing
901 material. Deletions and insertions may require numbering. If so, renumbering
902 instructions are given in the editing instructions. ***Replace*** is used to make changes in
903 figures or equations by removing the existing figure or equation and replacing it with a

904 new one. Editing instructions change markings, and this note: “These will not be carried
905 over into future editions because the changes will be incorporated into the base standard.”

906 Editing instructions and text indicating the changes to the base document follow the “NOTE—
907 Change bars shall not be included.” Only material being affected by the changes of the
908 amendment/corrigendum shall be included with the appropriate clause/sub clause headings.

909 13.2.1 Numbering in amendments and corrigenda

910 Amendments and corrigenda shall follow the clause numbering outlined in Clause 6. However,
911 if text is inserted between existing consecutive clauses or sub clauses, an additional letter may be
912 included in the heads (e.g., if clauses are inserted between Clause 4 and Clause 5, the new
913 clauses would be labeled Clause 4A, Clause 4B, Clause 4). This would also apply to sub clauses
914 (e.g., sub clauses inserted between 4.2.3 and 4.1.4 would be labeled 4.1.3a, 4.1.3b, 4.1.3c).
915 Subdivisions of inserted sub clauses would follow the numbering outlined in Clause 6 (e.g.,
916 4.1.3.a.1, 4.1.3a.2, 4.1.3.a3). This numbering may be more appropriate for amendments with
917 extensive changes that would affect numbering throughout the base standard (so it would be
918 difficult to outline all of the numbering changes that would occur), or for amendments to
919 standards where exact references to clauses, figures, equations, and titles are required.

920 Additional amendments to a base standard may insert text between already amended clauses or
921 sub clauses. In those cases, numbering of clauses may become overly complex. APPA staff can
922 assist with complex numbering formats. Working groups should consider a revision of the
923 document in these instances. For tables and figures in amendments and corrigenda, clause or sub
924 clause numbering should follow the numbering outlined in 6.1. However, if an amendment or
925 corrigenda inserts a table between consecutive tables, or a figure between consecutive figures,
926 the addition of a letter may be used.

927 Exceptions may be made for numbering established in previously published amendments.
928 Exceptions shall only be valid until a revision occurs, after which the numbering described in
929 Clause 6 will be implemented. Table 3 shows appropriate numbering formats that may be used
930 for amendments and corrigenda.

931 13.2.2 Editorial instructions in amendments and corrigenda

932 Amendments submitted for ballot shall clearly indicate the changes to the existing standard.
933 Editorial instructions shall clearly outline how the changes should be implemented in the base
934 standard, as modified by all previously approved amendments or corrigenda. The instructions
935 shall not require interpretation by the APPA staff, by balloter, or by any user. Therefore, the
936 placement of the changes, as well as any required renumbering, shall be delineated in an
937 unambiguous manner.

938 Editorial instructions shall precede all changes, and should begin with one of the four types of
939 editing instructions, which are formatted in ***change***, ***insert***, ***delete***, and, for figures
940 and equations, ***replace***.

941 ***Change*** shall be used when text or tables are being modified; therefore, ~~striketrough~~ (for
942 deletions) and underscore (for insertions) should be indicated.

943 ***Insert*** shall be used to add new text, equations, tables, or figures in the standard.

944 ***Delete*** shall be used to remove existing text, equations, tables, or figures without exchanging the
 945 information (i.e., it is not permissible to delete a paragraph and insert a new one rather than
 946 showing the changes in the paragraph using the change instruction).

947 ***Replace*** shall be used only for figures and equations by removing the existing figure or equation
 948 and replacing it with a new one.

949 APPA staff is available for questions that arise while preparing these documents.

950 13.2.3 Amendment versus revision

951 The greater the number of amendments or corrigenda associated with a standard, the more
 952 complex the editing instructions become for all subsequent amendments and corrigenda. If three
 953 amendments to a standard exist however, working groups are encouraged to revise the standard
 954 rather than develop an additional amendment.

955 **Table 3—Numbering of amended material**

Location of inserted material	Original order	Revised order
Clause heads First level	Clause 1 Clause 2	Clause 1 Clause 1A 1A1 Clause 1B Clause 2
Second level	1.1 1.2	1.1 1.1a 1.1a.1 1.1.b 1.2
Figures	Figure 1 Figure 2	Figure 1 Figure 1a Figure 1b Figure2
Tables	Table 1 Table2	Table 1 Table 1a Table 1b Table 2
Equations	Equation (1) Equation (2)	Equation (1) Equation (1a) Equation (1b) Equation (2)

956

957 **Table 3—Numbering of amended material (continued)**

Location of inserted material	Original order	Revised order
Annexes Annex heads	Annex A Annex B	Annex A Annex A1 Annex A2 Annex B
First level	A.1 A.2	A.1 A.1.a A.1a.1 A.1b A.2
Second level	A.1.1 A.1.2	A.1.1 A.1.1a A.1.1a.1 A.1.1b A.1.2

- 958 **14. APPA documents developed jointly with other organizations**
959 APPA standards may be developed jointly with other organizations with the appropriate
960 agreements in place. APPA staff shall be notified at the beginning of the standards development
961 process if there is an intention to jointly develop a standard with another organization.

962 **Annex A – Permissions requests**

963 (Informative)

964 Sample APPA permission form request and response letters.

965 When previously published material is to be reprinted or modified for use in an APPA standard,
966 permission to use that material is required. The working group shall obtain, clear, written
967 permission from the copyright holder as early as possible in the process, but in no event later
968 than submittal of the document for approval by the ASCC.

969 Copies of permission forms and response letters are available in the documents folder under
970 TCO in Causeway.

971 These permission form request and response letters are only samples. Agreements that do not
972 conform to these letters are possible, but such requests shall be in writing and shall approved by
973 the APPA staff:

- 974 - Non-exclusive, irrevocable
- 975 - Royalty-free permission
- 976 - World rights for distribution
- 977 - Permission to modify and reprint in future revisions and all media known or hereinafter
978 known

979 Copies of any correspondence regarding copyright shall be sent to APPA staff
980 (standards@appa.org).

981 If the working group plans to use a previously copyrighted document in its entirety, or as a base
982 document in a proposed APPA Standard, these sample letters may not be sufficient. It may be
983 necessary for APPA staff to negotiate a license agreement with a copyright owner, so it is
984 advisable that the staff be notified as early in the process as possible. Contact
985 standards@appa.org. Working groups shall not negotiate agreements with outside entities with
986 regard to APPA standards.

987

988 **Annex B – Permission letter samples**

989 The following samples can be modified as appropriate.

990

991 **B.1 Permission request letter**

992 To be placed on APPA letterhead

993

994 <Copyright Holder>

995 <Street Address>

996 <City, State Zip>

997 <Date>

998 Dear

999 The <sub group name> of the APPA Technical Steering Committee (TSC) is in the process of
1000 developing a standard document entitled <APPA Project Number and Title>.

1001 We have reviewed your document entitled <document name> and would like permission to
1002 modify the text (figure/table) that appears in <indicate section/chapter number> to use the
1003 material for standards development purposes relation to the APPA project noted above, including
1004 public review of the material for inclusion in our document.

1005 We request your permission to include the modified text (figure/table) in the APPA standard.
1006 APPA requests non-exclusive, irrevocable, royalty-free permission, and requires world rights for
1007 distribution. APPA is also seeking permission to modify and reprint in future revisions and
1008 editions of the resulting draft and approved APPA standard and in derivative works based on the
1009 standard, in all media known or hereinafter known. A standard credit line will be used unless
1010 specific text is provided. If you do not hold the copyright for this material, please inform us of
1011 this and, if possible, the name of the actual copyright holder. The form that should be used to
1012 grant permission is attached for your convenience. The form should be returned to APPA on
1013 company letterhead, where applicable.

1014 Thank you for your attention to this matter. I look forward to hearing from you soon.

1015 Sincerely,

1016

1017 John Bernhards

1018 Associate Vice President

1019 APPA

1020

1021 **B.2 Permission request letter to modify text**

1022 To be placed on APPA letterhead

1023

1024 <Copyright Holder>

1025 <Street Address>

1026 <City, State Zip>

1027 <Date>

1028 Dear

1029 The <sub group name> of the APPA Technical Steering Committee (TSC) is in the process of
1030 developing a standard document entitled <APPA Project Number and Title>.

1031 We would like to request permission to reprint the following material from your copyrighted text
1032 (table/figure) to use the material in connection with the APPA project noted above, including
1033 public review of the material.

1034 <Title, Author(s), Year of Publication>

1035 <Page Number, Reference Number to Clauses, or Pages Used (be very specific here).>

1036 APPA requests non-exclusive, irrevocable, royalty-free permission, and requires world rights for
1037 distribution. APPA is also seeking permission to modify and reprint in future revisions and
1038 editions of the resulting draft and approved APPA standard and in derivative works based on the
1039 standard, in all media known or hereinafter known. A standard credit line will be used unless
1040 specific text is provided. If you do not hold the copyright for this material, please inform us of
1041 this and, if possible, the name of the actual copyright holder. The form that should be used to
1042 grant permission is attached for your convenience. The form should be returned to APPA on
1043 company letterhead, where applicable.

1044 Thank you for your attention to this matter. I look forward to hearing from you soon.

1045 Sincerely,

1046

1047 John Bernhards

1048 Associate Vice President

1049 APPA

1050 **B.3 Permission response letter**

1051 To be submitted on company letterhead of the organization granting permission

1052

1053 <Copyright Holder>

1054 <Street Address>

1055 <City, State Zip>

1056 <Date>

1057 Mr. John Bernhards

1058 APPA

1059 1643 Prince Street

1060 Alexandria, VA 22314

1061 Dear

1062 I am authorized to grant permission to use the material in connection with the APPA project
1063 noted below, including public review of the material, and to modify the material as detailed
1064 below in the specified standards project:

1065 <APPA Project Number: APPA Project title>

1066 <Title, Author(s), Year of Publication, Copyright Holder>

1067 <Page Number, Reference Number to Clauses, or Pages Used (be very specific here.)>

1068 Non-exclusive, irrevocable, royalty-free permission to use this material is granted for world
1069 rights distribution, with permission to modify and reprint in all future revisions and editions of
1070 the resulting draft and approved APPA standard, and in derivate works based on the standard, in
1071 all media known or hereinafter known.

1072 <Authorized Signature> <Date>

1073 <Title>, <Affiliation>

1074 The following acknowledgment requirements should be met:

1075 Include an acknowledgment in the frontmatter and use the standard APPA attribution
1076 footnote as shown:

1077 <Material> reprinted with permission from <copyright owner>, <title of work from
1078 which the material is excerpted>, © <copyright year>.

1079 Include the specific attribution or frontmatter acknowledgment shown below:

1080 Additional requirements are listed below.

1081

1082 **B.4 Permission response letter to modify text**

1083 To be submitted on company letterhead of the organization granting permission

1084

1085 <Copyright Holder>

1086 <Street Address>

1087 <City, State Zip>

1088 <Date>

1089 Mr. John Bernhards

1090 APPA

1091 1643 Prince Street

1092 Alexandria, VA 22314

1093 Dear

1094 I am authorized to grant permission to use the material in connection with the APPA project
1095 noted below, including public review of the material, and to modify the material as detailed
1096 below in the specified standards project:

1097 <APPA Project Number: APPA Project title>

1098 <Title, Author(s), Year of Publication, Copyright Holder>

1099 <Page Number, Reference Number to Clauses, or Pages Used (be very specific here.)>

1100 Non-exclusive, irrevocable, royalty-free permission to use this material is granted for word rights
1101 distribution, with permission to modify and reprint in all future revisions and editions of the
1102 resulting draft and approved APPA Standard, and in derivate works based on the standard, in all
1103 media known or hereinafter known.

1104 <Authorized Signature> <Date>

1105 <Title>, <Affiliation>

1106 The following acknowledgment requirements should be met:

1107 Include an acknowledgment in the frontmatter and use the standard APPA attribution
1108 footnote as shown:

1109 <Material> reprinted with permission from <copyright owner>, <title of work from
1110 which the material is excerpted>, © <copyright year>.

1111 Additional requirements are listed below.

1112

1113 **Annex C – Terms and definitions - (informative)**

1114 Guidelines and best practices for the creation and maintenance of APPA terms and definitions.

1115 **C.1 Creation of new terms and definitions**

1116 The following guidelines should be followed when creating new terms and definitions:

- 1117 a) New terms and definitions included in APPA standards should be written in plain
1118 English using clear and concise descriptions. Terms themselves should not be
1119 used in their own definitions.
- 1120 b) Needless customization should be avoided so that definitions have as broad an
1121 application as appropriate. Definitions that are too specific should be avoided.
- 1122 c) New definitions that serve to add a new definition to an existing term(s) of the
1123 same name should be different enough from the other term(s) so as to justify the
1124 addition. Having more than two or three acceptable definitions for any term is
1125 discouraged.
- 1126 d) Terms and definitions that are included in APPA standards but that are taken from
1127 other sources must be accompanied by an appropriate permission
1128 acknowledgment. The sources should be identified in a parenthetical statement
1129 that immediately follows the term/definition.
- 1130 e) Supplemental material that accompanies a term for clarification but that is not an
1131 official part of the actual definition should be included either in the body of the
1132 document or in a note that immediately follows the term/definition. Definitions
1133 should not include references to other clauses/sub clauses in the standard.
- 1134 f) Definitions should have no commercial connotations and should be completely
1135 non-proprietary.
- 1136 g) Symbols should be defined as appropriate.
- 1137 h) Acronyms and abbreviations should be included in a separate sub clause.

1138 Suggestions for oversight (at the working group, committee, or council):

- 1139 - It is recommended that every standards-developing working group have a definitions
1140 group of some kind. If there are multiple groups (whether at the committee or working
1141 group levels), there should be one ruling group responsible for making ultimate decisions
1142 and concluding any differences.
- 1143 - Working groups should be educated to ask themselves to technically justify new terms
1144 and their definitions before proposing them.
- 1145 - New terms and definitions should be examined in consideration of: subject matter, existing
1146 terms in the APPA Definitions Database and general-usage dictionaries¹; comparable
1147 international terms; usage in relevant literature, etc. The creation of new terms can be
1148 time consuming and may take place either before or after working group meetings.

¹ APPA Technical Document Style Manual uses and recommends the latest edition of *Merriam-Webster's New Collegiate Dictionary*.

1149 **C.2 Revision of existing terms and definitions**

1150 The following guidelines should be followed when revising existing terms and definitions:

- 1151 a) Because all terms, including revised terms, must be seen and approved by balloters, all
1152 existing terms that require revision should be included in revision drafts. A note
1153 indicating the term is being revised may be appropriate.
1154 b) Groups are encouraged to revise terms only if necessary. Needless revision for minor or
1155 editorial changes is discouraged.

1156 Suggestions for oversight (in the working groups, committee, or council level):

- 1157 - ASCC may appoint the task of revising terms to the same group responsible for the
1158 general oversight of the creation of terms and definitions.
1159 - If the revision of an existing term is being done to include requirements of other groups,
1160 communication should take place first with members of the definitions-review team
1161 within the groups so as to consider relevant factors.

1162 **C.3 APPA Definitions Database**

1163 All terms defined in APPA approved standards are automatically included in the APPA
1164 Definitions Database, which is updated on a regular basis.

1165 Any terms that working groups, committees, or the council use within their group that are
1166 intended for inclusion in the APPA Definitions Database must be written into drafts that go for
1167 ballot and ASCC approval.

1168 The APPA Definitions Database is a complimentary tool made available to working group
1169 leaders and technical editors². Other standards developers can subscribe to the APPA Standards
1170 Dictionary Online by going to the Standards & Codes Council section of the website.

1171 **C.4 International harmonization**

1172 For APPA standards that are, might be, or will be used in the international arena, it is suggested
1173 that the text of the definitions also be included in the text of the standards themselves.

1174 In some cases, if a particular APPA definition is preferred over a definition used elsewhere in the
1175 international arena, this should be indicated.

1176 Special attention should be given to definitions intended as dual logo documents.

1177 Suggestion for oversight (at the working group, committee, or council level):

- 1178 - When creating terms/definitions for international projects, it is appropriate to research
1179 any international requirements/differences.
1180 - Questions regarding style for international projects should be directed to the APPA staff.

² APPA standards developers should contact APPA staff for assistance with this.

1181 [Annex D - Bibliography](#)
1182

1183 [Index](#)
1184
1185