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3 **Changes Incorporated:**

4 Incorporated comments from Jan. 94 PASC Interpretations BOF discussions
5 moved PIC Procedures into separate section
6 Added section numbers

7 **References:**

8 JTC1 Directives 1992 (6.13.3)
9 JTC1/SC22 N1236. [Note, SC22 has called for Interpretations to be treated as "Defect
10 Reports" in the JTC1 lexicon of documents.]
11 WG15/PASC Synchronization Plan (WG15 N352, SEC N396)
12 1993 IEEE Standards bylaws and Operations Manual
13 PASC Procedures

14 **1 Introduction**

15 This process is intended to insure that

- 16 1.1 - Requests routed into ISO/IEC and those routed into IEEE will enter the "other" path for
17 synchronized action and response.
18 1.2 - Interpretations are responded to in a consistent and timely fashion
19 1.3 - a consistent methodology is used for PASC work that requires synchronization with ISO and
20 those that do not.

21 **2. IEEE PASC Interpretations Process**

22 **2.1 Relevant Policies:**

23 The IEEE Standards Board Bylaws states the following:

24 *"Questions relating to interpretations require review and evaluation by a balance of*
25 *committee interests. No single officer or member of an IEEE sponsor or subgroup*
26 *thereof shall provide a written or verbal opinion concerning any portion of the text of an*
27 *IEEE standards document or an American National Standard developed under an IEEE*
28 *secretariat, unless that opinion has first been subjected to consideration by an*
29 *interpretations subgroup that represents all interested parties on the committee. The*
30 *actions to be taken shall be as specified in the IEEE Standards Operations Manual."*
31 *(pg. 11, 1993 version)*

32 The IEEE Standards Operations Manual states:

33 *Requests for interpretations are submitted to the Secretary of the Standards Board*
34 *(and forwarded to the appropriate committee)*
35 *"Upon receipt of the interpretations request, the committee designee shall prepare an*
36 *interpretation, or assign its preparation to a qualified member. That draft interpretation*
37 *shall be circulated to the designated interpretations subgroup and transmitted to the*
38 *party initiating the request only after it has met the concurrence of the interpretations*
39 *subgroup. Such interpretations shall be developed in a timely fashion. A copy of the*
40 *written interpretation shall be forwarded to the sponsor for consideration as a*
41 *supplement to the standard or for inclusion in the next revision. A copy shall also be*
42 *forwarded to the Secretary of the IEEE Standards Board, together with a list of*
43 *members of the interpretations subgroup, for the IEEE permanent project files."*

44 The PASC procedures state:

45 *"The Vice-Chair for Interpretations shall develop and maintain written PASC/SEC*
46 *guidelines which clearly define the interpretations process for PASC/SEC sponsored*
47 *standards. These Guidelines shall be in accordance with the IEEE Standards Manual."*

48 **2.2 Submitted to IEEE**

49 2.2.1 Any person or organization may submit a request to IEEE for an interpretation.

50 2.2.2 Interpretations requests are submitted to the Secretary of the IEEE Standards Board.

51 2.2.3 The IEEE Standards Department sends copies to the PASC Interpretations Vice Chair
52 (PASC IVC), the chair for the document specific project interpretations Committee (PIC) and the
53 PASC Chair.

54 2.2.4 The PASC IVC shall:

- 55 - assign a unique number and log the interpretation, and
- 56 - distributed to the applicable Project Interpretations Committee (PIC) with a defined
57 "Distribution Log Date" (and indicate the subsequent 25 and 38 day deadlines), and
- 58 - pass all requests for ISO related interpretations to the appropriate Project Editor, and
- 59 - send a message to the initiator indicating the log number, date, and acknowledging that it
60 has been received.

61 2.2.5 The WG15 TAG will submit these as Defect Reports into ISO/IEC for concurrent
62 processing in accordance with the synchronization plan.

63 **2.3 PASC Guideline for Action on Interpretations**

64 There are two over-riding guidelines related to interpretations:

65 **Rule 1) The standard is what it says.** The words actually approved by the balloting group
66 reflect the requirements set forth by that document. If the words are substantively wrong,
67 then a corrective amendment via the balloting process is the proper response.
68 Interpretations must be an comment on what the standard actually does say, not what it
69 should say, nor what it says incorrectly. There are mechanisms for quick revision of a
70 standard, and these must be used to make changes to "how things should be".

71 **Rule 2) If there is ambiguity** in what the standard calls for; then interpretations must favor
72 a looser conformance requirement rather than a more restrictive one. This will allow some
73 "wierdnix" implementations to conform to a current standard. Again, corrective action can
74 be taken via a rapid amendment process and eliminate this ambiguity with the full backing
75 of the consensus process.

76 **Rule 3) If there is a contradiction** between two sections of the same standard, and there
77 is reason to believe that one part is correct, then the rationale should be elucidated and the
78 IEEE errata correction process applied. (i.e. the response recorded as an "errata" and the
79 corrected text added to the IEEE errata sheet for the standard by the IEEE project editor.)
80

81 2.3.1 Some "pro-forma" examples of response text includes: (note, stating conformance
82 implications is important, and offers a way to distinguish between requirements placed on
83 implementations, applications, and test methods.)

84 2.3.1.1. The unambiguous situation:

85 "The standard clearly states, and conforming implementations must conform to this"

86 2.3.1.2. The "defect" situation (i.e. if the balloting group appears to have gotten it wrong.)

87 "The standard states ..., and conforming implementations must conform to this.

88 However, concerns have been raised about this which are being referred to the sponsor."

89 2.3.1.3. The ambiguous situation:

90 "The standard is unclear on this issue, and no conformance distinction can be made
91 between alternative implementations based on this. This is being referred to the
92 sponsor."

93 2.3.1.4. The unaddressed issue:

94 "The standard does not speak to this issue, and as such no conformance distinction can
95 be made between alternative implementations based on this. This is being referred to
96 the sponsor."

- 97 2.3.1.5. Conflict between base standard and a Test Method Standard
98 "The test method standard clearly indicates that a conforming test suite must test
99 However, the base standard indicates that such a result reflects a non-conforming
100 implementation. Therefore a conforming test suite, will not correctly report the
101 conformance of an implementation of the base standard in this case. The results of a
102 conforming test suite in this case should not be used to determine the conformance of an
103 implementation of the base standard. This situation is being referred to the sponsor(s).
104 2.3.1.6. Conflict between two language bindings
105 "The xxx language binding and the yyy language binding require different behavior of
106 conforming implementations. This situation is being referred to the sponsor(s)."
107 2.3.1.7. Conditional interpretation based on other standard(s):
108 "The required behavior of this xxx standard is dependent on the requirements of the yyy
109 standard. If yyy requires aaa then xxx requires bbb, whereas if yyy requires ccc then
110 xxx requires ddd. A request for interpretation of the yyy standard is being forwarded to
111 the yyy committee."
112 2.3.1.8. Substantially identical to previous interpretation:
113 "This request is substantially identical to interpretation #aaa, and the resolution of that
114 interpretation applies in this case."
115 2.3.1.9. Substantially identical to prior request, but with critical new perspective:
116 "This request is substantially identical to interpretation #aaa, however, in considering
117 <rationale> it appears that the previous interpretation should be superseded. The
118 current interpretation for this situation, (which does affect the previous conclusion) is"
119 In this case an attempt should be made to notify the previous requester with the updated
120 information.
121 2.3.1.10. Request for interpretation of a different document (draft...):
122 "This request is for interpretation of xxx, the approved standard is yyy, the requester is
123 asked to re-submit this request if the question(s) are still pertinent to the approved
124 standard."
125 2.3.1.11. Request is unclear (after attempt to contact requester for clarification.)
126 "This request is not sufficiently clear to permit an appropriate interpretation. Requester is
127 asked to submit a rephrased or more specific request." (Some rationale, specific issue,
128 or point of ambiguity should warrant comment in feedback to the requester.)
129

130 2.3.2 The challenge for the interpretations subgroup is to distinguish between their expertise
131 on what "should be", their interests on how they would "like it to be" and the clarity of the text on
132 "what it says". The issues of "should be" and "like it to be" are very appropriate points for
133 advocacy at the sponsor/working group level, to be addressed in a revision or amendment.

134 **2.4 Guideline on the PASC interpretations group decision process.**

135 The proper way to correct a defect is to request that the sponsor initiate an amendment PAR
136 or extend the scope of an existing PAR to addresses the issue, and to take action on that
137 amendment in a timely fashion. The sponsor may choose to put forward wording that clarifies the
138 situation in ways that differ from the perspective of the person raising the issue. The individual
139 should provide response in the balloting process, which may include a specific objection in this
140 area, and a request to change the wording. This puts the resolution of technical issues before the
141 full balloting process.

142 The process is designed to provide a response in non-controversial situations, within 60 to 90
143 days of receipt by the IEEE of a formal interpretations request Appeals based on "inaction" to
144 the Sponsor (PASC) and subsequently to the IEEE Standards Board are proper responses from
145 affected individuals or organizations.

146 **2.5 Response to Requester**

147 The PASC IVC shall forward the response to the IEEE Project Editor, and for IEEE initiated
148 requests, to the IEEE requester. Completed responses shall be accumulated by the IEEE for
149 future publication, and put on-line on the IEEE SPASystem BBS for public access.

150 In the case of "Further Consideration Required" responses; the Requester will be notified that
151 further consideration is required, and the current status. Also, this letter should clearly indicate
152 that the "proposed interpretation" is not accepted, and at this point should not be considered an
153 official or final response from the IEEE.

154 Appeals related to an interpretation are appropriate. These may be based on the lack of a
155 timely response, or on the failure of a response to adhere to these guidelines. Such an appeal
156 should be made to the PASC SEC by written request to the PASC SEC Chair. Requests for
157 corrective changes to the standards should be directed to the working groups responsible as
158 content to be addressed in a subsequent amendment.

159 **2.5.1 No Change response - PASC Action**

160 The PASC response shall be incorporated in an IEEE Interpretations publication, and should
161 be made available as quickly as possible on the IEEE SPAsystem.

162 **2.5.2 Further consideration required response - PASC Action**

163 [Note: this case occurs when the PIC has not reached a conclusion within the time frame
164 allotted.]

165 For work where ISO is involved: the PIC shall provide input to the related Project Editor of the
166 issues involved. The resolution these interpretations shall be done by the ISO WG, with input
167 from the PIC in its role as an editing committee in the ISO context. The ISO resolution will be
168 communicated back to PASC by the US Member Body (relevant TAG) for response to the
169 requester.

170 For work where ISO is not involved: the PIC shall report to the PASC SEC, and the SEC shall
171 take action by a majority vote at it's next meeting, proposing a response that is consistent with
172 these guidelines.

173 **2.5.3 Editorial Defect response - PASC Action**

174 Shall be forwarded by the PASC IVC to IEEE for incorporation in a future errata sheet for the
175 document, as well as an IEEE Interpretations publication., and being made available on the IEEE
176 SPAsystem.

177 **2.5.4 Technical Defect responses - PASC Action**

178 Shall be referred to the responsible Working Group, and the PASC SEC. PASC shall initiate
179 a PAR for such an amendment, and initiate work on the revised text; or incorporate it into an
180 amendment in progress.

181 Batching of corrective amendments is encouraged within the bounds of reasonable response
182 (which may vary depending on the nature of the defects).

183 **3.0 JTC1/SC22/WG15 Interpretations Process**

184 **3.1 Submitted to ISO/IEC**

185 Interpretations requests are submitted as Defect Reports, using the JTC1 Form 14 for this
186 purpose, to the JTC1/SC22/WG15 Convener. Submission of Defect Reports is permitted by
187 National Bodies, Liaison Organizations, an SC22 WG, or the Project Editor for the document.

188 The Convener shall log these, and forward them to WG15 members in accordance with the
189 Synchronization Plan. This distribution to WG15 identifies "WEEK 0" of the interpretations
190 response process, and shall indicate the date for WEEK 6 and WEEK 8 where response actions
191 are required by JTC1 Directives.

192 The U.S. WG15 Tag, when it receives Defect Reports from WG15 that were not initiated
193 though the IEEE will forward these to IEEE with a request for interpretation.

194 The Convener will send a letter to the (JTC1) initiator indicating the log number for the
195 interpretation and that it has been received.

196 **3.2 WG15 Defect Report Editing Group**

197 The "Editing Group" in terms of the JTC1 Directives (6.13.3, 1992 version) to address
198 appropriate WG15 defect reports is assigned to the IEEE PIC group for the affected standard.

199 National Body experts who wish to participate in the editorial process should indicate this
200 interest to the appropriate Project Editor, and they will be included in the email & related
201 distributions and dialog on WG15 Standard interpretations. National Bodies are encouraged to
202 nominate at least one expert for each WG15 IS document.

203 The Project Editor shall notify the PASC IVC of National Body experts to include in various
204 PICs.

205 **3.3 WG15 Preparation of a Response to Interpretation Requests**

206 The PASC PIC process shall be used to create a WG15 response.

207 The WG15 Project Editor, and identified National Body experts will participate in this process
208 to provide WG15 input, review and comment.

209 The timing windows established in the PASC process are designed to meet the JTC1
210 response windows defined for Technical Defect Reports.

211 **3.4 WG15 Acceptance of a Response**

212 It is important that WG15 experts raise concerns during the review window for a proposed
213 interpretation if there is any problem with the proposal. This is the way in which controversial
214 issues can be identified, and which will provide for a full WG15 review of the issue. The WG15
215 Project Editor is one of the persons who should raise concerns on WG15's behalf if the Project
216 Editor is aware of areas of concern or if the proposed course of action appears to be
217 inappropriate.

218 Non-controversial interpretations will be accepted by WG15 without further WG15 action.

219 **3.5 WG15 Response to Requester**

220 Responses will be forwarded by the Convener to the WG15 requester. In the case of "Further
221 Consideration Required" or Controversial interpretations, the Convener shall notify the requester
222 of this status, when the review of that status by WG15 is expected, and invite the National Body
223 of the requester to attend that meeting.

224 Responses shall be accumulated by the Convener for incorporation into a technical
225 corrigenda. All responses will be recorded in an SC22 Record of Response. Note, both of these
226 require SC22 approval.

227 **3.5.1 No Change response - WG15 Action**

228 These shall be incorporated into an SC22 Record of Response.

229 **3.5.2 Further consideration required response - WG15 Action**

230 These shall be placed on the agenda for discussion of the next WG15 meeting (given sufficient
231 notice/distribution time, typically 3 weeks minimum before the meeting; NOTE: all WG15
232 members have received the initial defect report, and should be prepared to discuss it at the next
233 WG15 meeting if needed, so greater notice should not be needed.). The PIC shall prepare a
234 report for submission, through the Project Editor, to WG15 as an "Editing Committee", for WG15
235 consideration.

236 **3.5.3 Editorial Defect response - WG15 Action**

237 Shall be forwarded by the Convener to the SC22 Secretariat to be incorporated in a future errata
238 sheet for the document; and reported in an SC22 Record of Response.

239 **3.5.4 Technical Defect response - WG15 Action**

240 Shall be referred to the U.S. member body, in accordance with the WG15 Terms of
241 Reference, with a request for appropriate text for submission as a technical corrigenda or
242 incorporation into an imminent amendment; and action reported in an SC22 Record of
243 Response.

244 Batching of corrigenda and SC22 Record of Report documents is encouraged within the
245 bounds of reasonable response (which may vary depending on the nature of the defects).

246 **3.6 Disapproved Record of Response**

247 If SC22 does not approve a Record of Response submission, the Project Editor will refer the
248 issues raised back to WG15 well as the associated Editing Committee (PIC), and prepare a
249 recommendation for consideration at the next WG15 meeting

250 **4.0 IEEE Project Interpretation Committee (PICs) Procedures**

251 **4.1 Membership:**

252 Each IEEE Working Group that has approved standards shall provide a list of individuals who
253 are willing to participate in the ongoing interpretations process associated with that standard, and
254 identify one or more individuals willing to serve as the chair of that project's interpretations
255 committee (PIC Chair). PASC Standards are tightly coupled in some cases, so participation in a
256 PIC by individuals familiar with these various documents should be encouraged (LIS, language
257 bindings, test methods for example.)

258 This index of PICs and contacts shall be maintained by the PASC IVC, with a copy on file
259 with the IEEE Project Editor.

260 PICs shall always include the following persons for informational purposes: the PASC Chair,
261 The Chair of the related US TAG, the PASC IVC, IEEE Project Editor and the related ISO
262 Project Editor.

263 **4.2 Chair**

264 Candidate(s) for the PIC chair shall be put forward to the PASC SEC for a confirmation vote
265 by the Vice Chair for Interpretations on an annual basis. A PIC chair can serve multiple
266 consecutive terms. A PIC Chair can be removed by a majority vote of the SEC if the PIC does
267 not generate two or more interpretations responses within the guideline time frames. (Note, this
268 is not removal from the PIC, just a method to permit timely adjustments of responsibilities,
269 recognizing that volunteers will get swamped with other tasks occasionally.)

270 **4.3 Operations**

271 A PIC shall serve as the "Editing Group" in terms of the JTC1 Directives (6.13.3, 1992
272 version) to address appropriate WG15 defect reports. National Body experts notified to the
273 PASC IVC shall be included in the appropriate PIC groups.

274

275 The PIC Chair will ask participants to propose a response, and for one individual to be
276 responsible for this particular response process.

277 It is expected that most or all PIC work will be carried out by electronic mail.

278 The PIC Chair or responsible individual can contact the individual requesting an
279 interpretation. This would be particularly appropriate if the request is unclear. The results of
280 such contact should be recorded as part of the interpretation status (for example, it may result in
281 a change of wording of the request, which would be circulated to the PIC with a note that this
282 resulted from a discussion on a specific date with the requester.)
283

284 Proposed resolution, from the PIC responsible individual, is distributed amongst the PIC by
285 email. This should occur within 25 days of the Distribution Log Date. [Day 25]
286

287 PIC Responses shall indicate one of the four categories of action specified in the JTC1
288 Directives. These categories are:

289 Further Consideration Required [indicating that resolution requires more time, and requesting
290 resolution by the ISO WG as a result of the PIC not coming to a conclusion in time for ISO
291 related requests]

292 No Change required

293 Editorial Defect [No substantive impact, should not affect conformance]

294 Technical Defect [Substantive change recommended]

295

296 **4.4 Consensus**

297 Circulation of a proposed resolution is the equivalent of an "are there any objections"
298 consensus determination within the PIC. Objections must be submitted within 10 days of the
299 circulation of the proposed resolution. [Day 38]

300 Objections from any participant in the PIC shall be forwarded to all members of the PIC, and
301 the PASC IVC. In the case of Interpretations submitted to ISO, the related Project Editor shall
302 be included in this circulation.

303 Any participant in the PIC can request that a poll of the participating members be held to
304 verify that the proposed response has sufficient support.

305 **4.5 PIC Resolution Poll**

306 In cases where objections to the proposed interpretation are raised, or if a poll is requested,
307 then a poll of the participants shall be taken, and if a majority agree with the proposed
308 interpretation it may be forwarded as the conclusion of the group. However, if an alternative that
309 might gain better acceptance of the group is brought forward before the Day 38 window closes,
310 this can be used in a poll as well, with the alternative gaining the greatest acceptance being put
311 forward (a majority must still accept it).

312 For example, consider proposal A is put forward, and alternate B is suggested. A and B can
313 be put to the group, in a "default ballot" where no response implies concurrence with either
314 approach, and with participants able to concur with either, both or none (folks stating "neither"
315 should have yet a third alternative to suggest). The alternative with the best acceptance can be
316 forwarded as the conclusion provided it has at least majority acceptance in the process. An
317 single, additional 10 day period will be permitted for response to such a ballot [closure by Day
318 51]

319 The PIC responsible individual will incorporate non-controversial changes into the proposed
320 response, and add a "controversial points" section with the appropriate information to the
321 response where concerns have been raised. The response (which may be incomplete in the
322 case of controversy) shall be distributed to the PIC, and the PASC IVC within 7 days. [Day 48, or
323 Day 60 in the case of a ballot] When a majority of the PIC does not agree, the interpretation
324 status shall be defined as "Further Consideration Required".

325