IEEE 60780-323 Ballot Comments

Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- Participants [Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2]:
  - "Shall inform the IEEE (or cause the IEEE to be informed)" of the identity of each "holder of any potential Essential Patent Claims of which they are personally aware" if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
  - "Should inform the IEEE (or cause the IEEE to be informed)" of the identity of "any other holders of potential Essential Patent Claims" (that is, third parties that are not affiliated with the participant, with the participant's employer, or with anyone else that the participant is from or otherwise represents)
- The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group
- Early identification of holders of potential Essential Patent Claims is strongly encouraged
- No duty to perform a patent search

Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

IEEE-SA Standards Boards Bylaws

http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6

IEEE-SA Standards Board Operations Manual

http://standards.ieee.org/develop/policies/opman/sect6.html#6.3

Material about the patent policy is available at

http://standards.ieee.org/about/sasb/patcom/materials.html

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/about/sasb/patcom/index.html

This slide set is available at https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt

Call for Potentially Essential Patents

- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:
  - Either speak up now or
  - Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or
  - Cause an LOA to be submitted

Other Guidelines for IEEE WG Meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
  - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
  - **Don't discuss specific license rates, terms, or conditions.**
    - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
      - Technical considerations remain primary focus
  - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
  - **Don't discuss the status or substance of ongoing or threatened litigation.**
  - **Don't be silent if inappropriate topics are discussed … do formally object.**

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and "Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy" for more details.

IEEE 60780-323 Ballot

- 60 People in Ballot Group
- 93% Returned
- 87% Affirmative
- 62 Comments
  - 24 Must Be Satisfied

- We Meet IEEE 75%/75% Rules & Can Proceed

Time Line

- Reviewed All Comments & Will Answer
- Review Comments Proposed To Make Change
  - Need SC-2 & IEC To Agree on Changes
    - If Not, Leave As Is
  - IEC Comments End of April
    - Will Review With IEC & JPT in France in June
  - Will Then Go For 10 Day Ballot
    - Comments Only On These Changes
      - If Additional Comments May Revert To Previous Wording
- Try To Get on Oct RevCom
  - Material Needs to Be in At Least 30 Days Ahead
- Par Ends Dec 31, 2017

Scope

- Bases to Basis
  - Typographical Error

Definitions

- In 3.3 Changed to Superscript for 1
  - Formatting Error
- In 3.9 Changed accidents to events
  - Design Basis Events Used Throughout Document

3.12 & 3.13 Merged

- (A) For usage consistent with IEC 61226, equipment important to safety are as follows:
- all I&C equipment performing Cat A to Cat C functions (in accordance with the IEC 61226 categorisation scheme),
- all electrical equipment needed to ensure emergency energy supply to this equipment in case of a loss of normal power supply,
- all electrical equipment needed to ensure ultimate energy supply in case of total loss of on-site power (if selected as beyond design basis accident to be mitigated).

3.12 & 3.13 Merged

- (B) for usage consistent with other IEEE documents and a Class 1E categorization, qualification is essential to the following for equipment important to safety:
  - electric equipment and systems that are essential to emergency reactor shutdown, containment isolation, reactor core cooling, and containment and reactor heat removal, or
  - electric equipment that are otherwise essential in preventing significant release of radioactive material to the environment.

Definitions

- **service conditions**
- actual physical states or influences during the service life of equipment, including normal operating conditions, abnormal operating conditions ~~(normal and error induced)~~, design basis event conditions and conditions following a design basis event.
- Deleted Reference To IAEA Safety Glossary
- More Familiar Nomenclature For US

Symbols and Abbreviations

- Delete USCFR Since No Longer Used

6.1.1 Type Testing

- Equipment qualification testing shall be performed with equipment functioning (including software when ~~used~~ required) in a state representative of its intended use in actual operation.
- Changed to required instead of used since may use software but may not be required.

6.1.3 Analysis

- Analysis of data and tests for material properties, equipment rating, and environmental tolerance may be used to supplement the demonstration of qualification; however analysis alone shall ~~can~~not be used to demonstrate qualification.
- Shall vs Can

6.2.1 General

- Such moderate ageing acceleration factors may ~~could~~ result in the condition of the equipment under test falling short of its required end-of-life condition and hence limiting service life.
- May vs Could

6.2.3 Method 2: Sampling

- One example of sampling is to install additional qualified equipment in identical service conditions or use qualified equipment aged in the plant. Remove before the end of the qualified life of equipment in-service and demonstrate its safety function performance during DBE(s). Demonstration is by performing DBE tests after further age conditioning to establish additional qualified life.
- Another example of sampling is to retain and continue ageing the test sample from the initial programme or begin ageing a new sample while the qualified equipment is in service. Subsequent demonstration of equipment safety function performance during applicable DBE(s) increases the qualified life by the additional life simulated.
- Break into two distinct parts

7.2.1 General

- Equipment Specification documentation shall provides essential information about the equipment to be qualified.
- Make Text Mandatory
- Also Fixed Links

7.2.6.3 Design Extension Conditions

- Some equipment ~~needs~~ is required to be qualified for conditions that are beyond design basis of the plant (e.g., extended station black out, extreme natural hazards, and severe accident). For such equipment a plant specific severe accident profile may be used for component specific qualification requirements.
- Editorial – Mandatory Language

7.3.2 Aging

- The ability of equipment important to safety to perform its safety function(s) ~~might~~ may be affected by changes due to environmental and operational conditions over time.
- Might to May

7.4.1.8 Test Sequence

- The consistency in the product line shall be maintained through a nationally recognised quality assurance program.
- Editorial – Mandatory Language

7.4.1.8 Test Sequence

- NOTE—Information on susceptibility testing for EMI/RFI and surge voltages is given in ~~Annex B of~~ IEEE Std 603~~-1998~~, ~~Annex C of~~ IEEE Std 7-4.3.2 4~~-2003~~ and IEC 62003. For convenience, EMI/RFI susceptibility testing and functional test under normal conditions may be performed on a separate test specimen.
- Deleted Dates For Previous Standards and Annex Sections Since Changed in Latest

7.4.1.9.1 Natural Aging

- For equipment located ~~the~~ in mild environment applications, natural ageing may be supplemented by analysis or age conditioning, or both, to account for differences between the specified service and the natural ageing conditions to justify the qualified life of the sample.
- Editorial

7.4.1.9.2 Age Conditioning

- Thus, the need for compensation by conservatisms in the selection of total radiation dose and calculation of qualified life and margins in qualified condition is material dependent.
- Was dependant – Typo

8 Documenation

- Identification of the equipment being qualified, including manufacturer, model, and hardware/software version (for programmable components) ~~and model family~~,
- To Be Consistent With Following Section That Deleted Model Family

Bibliography

- IEEE Std 7-4.3.2™-2003 Deleted
  - Have 2010 Version Listed
- IEEE Std 603-1998 Deleted
  - Have 2009 Version Listed

QUESTIONS

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