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**Meeting Minutes**  
**IEEE P1100 Working Group**  
**Revision to Emerald Book IEEE Std 1100-1992**

**1995 IEEE IAS Annual Conference**  
**Orlando, Florida**  
**October 9, 1995**

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## ***1.0 Call to Order***

The meeting was called to order by Tom Gruz with 35 members and guests in attendance. All of the members and guest introduced themselves and an attendance sheet was passed around. The updated attendance list is attached to the minutes.

## ***2.0 Approval of Last Meeting Minutes***

A motion to approve the minutes from the last meeting held on May 8, 1995 during the 1995 IEEE I&CPS Annual Technical Conference was made and passed.

### ***2.1 Chapter Chair Change***

Mike Butkiwicz has been appointed to replace Ed Cantwell as chapter chairman for Chapter 9.

### ***2.2 Secretary Change***

Chris Melhorn has been appointed as secretary as a result of the former secretary, Mike Butkiewicz, taking on new responsibilities as a chapter chairman.

## ***3.0 Update on IEEE Policies***

Kristin Dittmann, the Publishing Manager of IEEE Standards, gave an update on IEEE's current policy regarding:

- Metric policy
- IEEE Standards Companion Layman's Guide
- Styles Guide for IEEE

- SPAsystem™ - On line Standards
- Standard 268.1 - Units and Abbreviations

Information on any or all of these documents is available from Kristin at the following address:

Kristin M. Dittmann  
Publishing Manager, IEEE Standards  
445 Hoes Lane  
PO Box 1331  
Piscataway, NJ 08855-1331  
908-562-3830 voice  
908-562-1571 fax  
k.dittmann@ieee.org

### **3.1 Copyright Notice**

Also, a reminder that the IEEE copyright notice must appear at the bottom of every page of each draft was given. The draft should also be labeled with the project number (P1100), the draft number, and the date of the draft. An example is shown below.

#### ***Front Page***

**Project P-1100**  
**Chapter ##**  
**Chapter Title**  
**Draft 4**  
**Date**

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## **4.0 Chapter Status Reports**

### **4.1 Chapter 2 - Carl Becker - Definitions**

Carl was not in present at the meeting. Chapter 2 is basically complete, looking for any new words, terms, or acronyms from other chapter chairman that may have been added since last revision.

### **4.2 Chapter 3 - Tom Key - General Needs Guidelines**

Tom handed out a draft of Chapter 3. Tom ask that members of the working group reviewing Chapter 3 comment on the italicized items in the draft. Tom will be adding reference to P1159 and P1250 to this chapter along with adjustable speed drive (ASD) sensitivity and disturbing equipment. Tom also mentioned that he wants to incorporate data from the National Power Labs survey (end-use level), Canadian Electric Association survey (service entrance level), and the EPRI Distribution Power quality project (distribution level) to Chapter 3.

Computer Equipment and Manufacturers Association (CBEMA) has changed to the Information Technical Industrial Council (ITIC) and that they are adding ASD and other compatibility curves to their document.

The next draft will be available for review by January 1, 1996.

### **4.3 Chapter 4 - Ray Waggoner - Fundamentals**

Ray was not present at the meeting. Chapter 4 is behind schedule. Next draft will be available for review by January 15, 1996.

#### **4.4 Chapter 5 - Doug Dorr - Instrumentation**

Doug distributed the final draft of Chapter 5 at the last meeting in San Antonio on May 8, 1995. Doug has received no response as of the date of this meeting. Doug is looking for help on updating all figures and graphs in the chapter.

There was discussion of deleting photos from the chapter as they tend to date or make the chapter obsolete before it is even published. No action taken at this time. Doug request black and white photos with negatives, if possible.

#### **4.5 Chapter 6 - Ken Michaels - Site surveys and Power Analyses**

Ken distributed copies of draft 4.0. Ken plans to include information on the following areas:

- testing of ungrounded systems
- delta systems (suggest adding this to Chapter 9 also)
- additional hook-up techniques

A typo was found on page 155, caption for Figure 6-5. Ken noted the typo and will make the correction.

#### **4.6 Chapter 7 - Don Zipse - Case Histories**

Don reported that rather than change the chapter number on all the drafts, he would simply put the title "Last Chapter" and leave the chapter number as Chapter 7. Don will send out the latest draft to all chapter chairman and T. Gruzs within 30 days. Don is looking for help with new case studies.

Discussion was held on the appropriateness of adding a case study of a person receiving an electrical shock while taking a shower. No action taken at this time. Don will also be including case studies on EMF in Chapter 7.

#### **4.7 Chapter 8 - Vladi Basch - Specification and Site Selection of Equipment and Materials**

Vladi was not present at the meeting. Vladi will revise and include updates and a new draft will be available by December 1, 1995.

#### **4.8 Chapter 9 - Mike Butkiewicz - Recommended Design and Installation Practices**

Mike distributed copies of the latest draft for Chapter 9. The chapter format has been completely modified from previous revisions. Mike has only partially incorporated the contributions from chapter members in the latest draft. References and bibliography must be expanded and checked for consistency. New sections will be added in the next revision. A final draft will be available on December 1, 1995.

Discussion was held on the use of two acronyms: TVSS and SPD. Suggestions were made to use only TVSS, use both TVSS and SPD, and to use only SPD. Several other observations were made.

- It was brought to the attention of the working group that Chapter 2 (Definitions) did not define TVSS, but it did define the acronym TVSS as a “Transient voltage surge suppressor”.
- P1159 removed the use of the word “surge” from the document.
- Both P1250 and P1159 use TVSS as well as UL 1449. TVSS is comprised of many devices while SPD is a single device.

A motion was made to:

***Motion:***

*“Define SPD and TVSS appropriately to the use of the two terms. TVSS will be used throughout the document except where SPD is needed.”*

***Result:***

The motion was passed (100 %).

Discussion was held on the use of “K-Factor rated” vs. “K-rated”. Mike will use “K-rated” (UL-1561) in the document.

Discussion was held on neutral to ground voltage in Chapter 9, in particular, putting limits on acceptable levels of neutral to ground voltages. The following suggestions were made:

- Do not put limits on the neutral to ground voltage.
- Advise readers to look in NEC
- Page 149 of Chapter 6 has limits in for neutral ground voltages in a table.

No action taken at the present time.

Discussion was held on putting a limit on the voltage THD. The following suggestions were made:

- Use IEEE-519-1992 for the point of common coupling.
- Use the equipment specs for THD limits at the equipment terminals.

Discussion was held on the use of the term “transformer forward transfer impedance” and its appropriateness in the document. The following suggestion was made.

- Take out the term. It is a proprietary term used by one transformer manufacturer.

General comments on Chapter 9 were:

- Move communications to Chapter 10
- Chapter 9 should mesh with Chapter 10
- Mike is still looking for more input and material

**Comments on Chapter 9 are due December 1, 1995.**

#### **4.9 Chapter 10 - Bill Bush - Distributed Computing and Telecommunications Systems**

Bill Bush distributed a draft of Chapter 10. Figures were not incorporated in this revision. The actual amount of text will be reduced in the final draft. Another draft of Chapter 10 will be available by January 1, 1996.

Bill is seeking help in the following areas.

- Pictures of actual sites.
- Section 10.4.1. Needs help describing each standard and finding abstracts for each standard. Input on additional standards that apply are encouraged.

Additional comments made by working group members.

- Add 780 NFPA to Chapter 10. It already appears in Chapter 9, no reason to repeat.
- Abbreviations and acronyms are extreme, make sure they are defined.
- Suggestion made to move all definitions to Chapter 2 (section 10.5).

## **5.0 New Business**

### **5.1 Call for Papers**

1. Bill Bush and Percy Pool volunteered to present a paper at the IEEE IAS 1996 Annual Technical conference
2. Philip Lim volunteered to present a paper (I&CPS 96 or IAS 96).
3. Doug Dorr submitted a paper to Barry Brusso, apparently it was lost. Don Zipse will follow up on this item.

## 5.2 Liaison Reports

Official documentation is required from each of the committees that have a liaison with P1100. The following working members have either volunteered or been volunteered to be liaisons for various committees.

1. Bill Bush - TR41.7 and T1E1.7
2. Dave Vannoy - P1159 and P1250

A suggestion was made at the last P1159 meeting that the Emerald book (P1100) and P1159 merge. Tom key will discuss with J. C. Smith (P1159).

A question arose concerning the coordination between the Green Book and the Emerald Book and the use of single-point verses multi-point grounding. Tom Gruz submitted a draft letter (attached) to the working group for comments.

A motion was made to:

***Motion:***

*“Approve sending the response to the Standards Department”*

***Result:***

The motion was passed (100 %).

## **Reminders:**

- Chapter chairmen are reminded to keep a list of active participants on their respective chapters.
- Bill Bush asks for comments on Chapter 10 as soon as possible.
- The next P1100 Working Group meeting will be held during the 1996 IEEE I&CPS Conference in New Orleans, LA, during the week of May 6, 1996 through May 9, 1996.

A motion was made to:

***Motion:***

*“Adjourn the meeting”*

***Result:***

The motion was passed (100 %).

