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| Reported by (Name): | Geoffrey S. Ibbott, Ph.D. |
| Organization: | International Electrotechnical Commission |
| Position Title: | Chairman, Subcommittee 62C, Convenor, Working Group 1, Chair, US TAG |
| Activity: | Meeting of WG1, Subcommittee 62C, and Technical Committee 62 |
| Meeting Dates: | November 21-26, 2014 |
| Meeting Location: | New Orleans, LA |
| Payment $: | Reimbursement for expenses |
| Reasons for Attending or not Attending | Attended as Convenor of Working Group 1 and Chair of Subcommittee 62C |
| Issues from Previous Meetings or Year: | See report |
| General Description of Activities of the Organization and/or Meeting: | See report |
| Issues for AAPM: | See report |
| Budget Request ($): | See budget request |



INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE TC 62: Electrical equipment in medical practice

SUBCOMMITTEE SC 62C: Equipment for radiotherapy, nuclear medicine and radiation dosimetry

WORKING GROUP WG 1: Beam teletherapy and particle accelerators

Place: Royal Sonesta Hotel

New Orleans, LA

**Date: November 21-26, 2014**

I. Meeting of Working Group 1 and its Project Teams, November 21-23, 2014:

ATTENDANCE

The meeting was attended by 38 members representing Austria, Belgium, Brazil, Canada, China, Germany, Japan, Saudi Arabia, Sweden, Switzerland, United Kingdom and the United States.

Begin: 09:00, 2014-11-21 End: 17:00, 2014-11-23

Opening of meeting:

Ibbott opened the meeting and welcomed the members. He announced that the Working Group and Subcommittee Secretary, Mr. Claus-Peter Hoeppner was unable to travel and could not attend the meeting. Mr. Willi Goldstein agreed to help perform the functions of secretary for this meeting. Ibbott reviewed the activities of the Working Group in recent months. WG1 has been very productive and has produced four new standards in the last 18 months. These are detailed in the report of WG1 to Subcommittee 62C, attached as Appendix B.

The Working Group then separated into three groups, using different rooms: PT62926 in one room, the light ion project team in another, and the linac standard 4th edition in a third room.

On Saturday, the entire WG met together to discuss progress made yesterday. Then the groups split up to again work independently.

Similarly, on Sunday, an early morning report was given by each project team, and then the groups worked independently. At the end of the day, Ibbott as Convenor met with each group to review the work accomplished and agree on future plans.

**Light Ion Performance Project Team**

The Light Ion Performance Project Team had received the National Committee comments on the 3rd CD, document 62C/601/CD. They reported that they spent much of the first day reviewing comments received on the definitions. Several specific issues were raised for the WG to consider. Some discussion was held on the description of environmental conditions, spatial resolution, irradiation time (perhaps portal delivery time), lateral spreading device (defined in the BLD reference frame, but problematic because spreading devices don't rotate with the BLD in a light-ion accelerator). Table top and positioner definitions have been changed from safety standard. The 60601-2-1 Linac standard 4th edition Project Team is also considering these changes. Patient Support is defined as including table top. How to include 6DoF top? Major issue is definition of Accompanying Documents. The Project Team would like a term that includes different media including video, web, etc. Also needs to account for fact that performance standard is most useful before purchase, so it can't "accompany" the equipment. [N.B., Ibbott subsequently discussed this with Justin McCarthy and Chuck Sidebottom, chair and secretary respectively of 62A, who confirmed that there are no plans to change the definition of Accompanying Documents. Therefore, WG1 is free to consider a new defined term such as Provided Documentation.]

As of the morning of the third day, the Light Ion Project Team was only about 1/3 of the way through the comments. The explained that they have spent a lot of time on editorial comments and definitions. The propose to add several new definitions, and we're considering a new definition of Initiation. The WG as a group reviewed the existing definition of Initiation and discouraged the PT from writing a new definition.

**IEC 62926 Project Team**

The PT spent most of the first day in a joint session with the entire WG, with the exception of the Light Ion PT. They discussed risk analyses for gating and tracking systems. In Geneva we had decided to separate gating and tracking and handle separately. The WG agreed that document will be limited to external beam radiotherapy systems (need clarification of term). The PT met separately for much of the next two days, but made a report and presented a New Work Item Proposal to the WG (see note later in this report.) This is a complex document with ramifications for influencing other standards and considerably more work is needed. The PT is planning another meeting in Sapporo in February.

**IEC 60601-2-1 Linac Safety 4th edition Project Team**

The 4th edition PT met on the second and third days of the WG meeting, having spent the first day working with the 4DRT PT. The PT made good progress working through the draft of the 4th edition and assigned "homework" to each of the members for completion over the next few weeks. The PT discussed specific issues such as beam control to include flatness, gating, etc. Specific requirements for on-line IGRT were discussed, to include data exchange and analysis of image information. The PT is planning a meeting in conjunction with a Dicom working group in Washington in March 16-20.

60601-2-8 Amendment 1. Review of comments to CDV

The Swedish comments to the CDV were reviewed as well as the changes that were made by CO. It was agreed to first confirm the intent of the changes made by CO, then incorporate the changes and prepare an FDIS for distribution to National Committees.

**Proposal from Japan for NWIP**

**The Japanese National Committee members presented a proposal for a NWI for a moving phantom. The proposal was discussed at length and the Working Group ultimately concluded that this was not appropriate for an IEC standard.**

**II. Subcommittee 62C Plenary Meeting,** November 24, 2014:

The agenda of the SC 62C meeting is attached as Appendix A, together with the reports of the three Working Groups (WG1 - Appendix B; WG2 - Appendix C; WG3 - Appendix D.) The meeting proceeded with little discussion, with the exception of two items:

The proposal for revision of the scope of 62C was reviewed and there was a question of whether the changes made the scope too broad. No specific concern was identified, and the scope was approved as written by the SC.

The Programme of Work was discussed, and it was pointed out that several of the project dates were incorrect. These will be corrected and forwarded to the Central Office.

III. TC62 Chairman's Advisory Group Meeting, November 25, 2014:

There was considerable discussion over a report from the Software and Network Advisory Group (SNAG). This group has prepared a report that they wish to have circulated to the subcommittees that contains guidance for the preparation of medical equipment software.

Dated/undated references: Subcommittee 62D reported that so far, no particular standards have been published with dated references removed. So the pilot program is still underway and no experience has yet been acquired with undated references.

Discussion was held on the timing of the next meeting. See below for dates.

IV. TC62 Plenary Meeting, November 26, 2014:

Meeting called to order at 9:00 am on Nov 26. Minutes of previous meeting approved. Report from Central Office given by Pierre Sebellin, describing the numbers of members, committees, projects, experts, etc. New work at the IEC is to address electrotechnology for mobile systems, and "smart grid" electrical distribution systems.

The secretary reported that there has been a backup of approval of IEC standards by CENELEC in Europe. 60601-1 has just recently been approved.

Reports from subcommittees A, B, C and D. 62A is proposing to start maintenance work on 60601-1 Ed 3.1 in 2015. However, they do not propose to advance the publication date, which they recognize must not be too early. 62B discussed a proposal from HERCA on standardizing the units of dose area product. They propose to discuss with IOMP and other organizations.

62C asked for approval of the change of scope. Because the proposed new scope was not distributed 6 weeks in advance, it was first necessary to vote to consider the new scope without the required 6 weeks notice. It was agreed to consider the scope. The scope was reviewed and a vote taken. The new scope was approved.

**V. Date and place of upcoming meetings**

The Project Team on the 4th edition of the linac safety standard is proposing a meeting in Washington, DC, before or after a Dicom meeting scheduled for March 16-20.

PT62926 is proposing a meeting at Hokkaido University in Sapporo Japan Feb 2-4 2015.

The light ion project team is proposing meetings in Shanghai on January 30 - February 1, and over the Memorial Day weekend, May 24-26, following the PTCOG meeting in Southern California.

The next meeting of Working Group 1 is proposed to follow the ESTRO meeting in Barcelona at the end of April. ESTRO appears to end in the mid afternoon on April 28. The dates of the WG1 meeting will probably be April 29 - May 1.

The next meeting of TC62 and its subcommittees and working groups is tentatively scheduled for November 2-13, 2015 in Kobe, Japan. TC62 and its subcommittees and working groups will also meet during the 110th anniversary General Meeting to be held October 3-14, 2016 in Frankfurt, Germany.

Respectfully Submitted,

Geoffrey Ibbott

Convenor, Working Group 1