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| **Reported by (Name):** | **Geoffrey S. Ibbott** |
| **Organization:**  | **International Electrotechnical Commission** |
| **Position Title:** | **Convenor, Working Group 1 of IEC Subcommittee 62C; Technical Advisor to US National Committee; Chair, US Technical Advisory Group (TAG) for 62C** |
| **Activity:** | **Routine report** |
| **Meeting Dates:** | **See report** |
| **Meeting Location:** | **See report** |
| **Payment $:** | **None in 2020** |
| **Reasons for Attending or not Attending** | **Attended all meetings (since March 2020, all meetings have been virtual)** |
| **Issues from Previous Meetings or Year:** | **See report** |
| **General Description of Activities of the Organization and/or Meeting:** | **The IEC publishes standards addressing the safety and performance of electrical equipment. Subcommittee 62C specifically addresses equipment for radiotherapy, nuclear medicine and radiation dosimetry.** |
| **Issues for AAPM:** | **No major issues. As indicated, several significant developments are under way.** |
| **Budget Request ($):** | **Included with WGIEC** |

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**

**Notes from meetings related to Technical Committee 62;
Subcommittee 62 C, Working Group 1, held Feb 3-5, 2020 in Best, The Netherlands
US-TAG (62 C) virtual meeting held April 2-3, 2020 in Palo Alto, California**

1. **Working Group 1 of Subcommittee 62C**

**Current projects**

1. IEC 60601-2-1 Ed4, Linac Safety: The 4th edition addresses recent major developments in linac design and use. An FDIS was was prepared and will be distributed by Central Office in September.
2. IEC 62083 Ed2, Treatment Planning System Safety: A CD was circulated in September 2019 and many comments were discussed at the WG 1 meeting in Shanghai. Several National Committees, including the US, provided their comments directly to the primary author. A virtual meeting to discuss the remaining comments will be held in August 2020. A decision whether or not to proceed to a CDV will be made at that time.
3. IEC 61217 Ed3, Coordinates and Scales: National committees approved this project via 62C/695/DC. A preliminary draft was circulated in mid 2019. The US TAG commented further at its Spring 2020 meeting, and Ibbott will prepare a new pre-CD draft in the summer of 2020.
4. TR 63321, IGRT Performance: A proposal for an IGRT performance standard was approved and a CD is expected in Dec 2020.
5. IEC 63322, Radioactive Source Security: The Swedish national committee submitted a formal new work item proposal which was approved. An initial virtual meeting was held in the Spring and the next meeting is scheduled for July 2020. A CD is expected by Dec 2020.
6. IEC 60601-2-64, Light Ion Safety. The Japanese national committee submitted a proposal for several amendments regarding the measurement of leakage neutrons, among other issues. This proposal is expected to be circulated as a DC/Q document in the Summer 2020.
7. IEC 60601-2-68 Amd 1, IGRT Safety: The WG considers that an amendment is required urgently to correct gaps and problems in the X-IGRT standard. A questionnaire was approved and work is progressing.
8. IEC 60601-2-XX, MR-IGRT Safety: A companion standard to -2-68 will address MR-IGRT. A draft was prepared and the working party met in Feb 2020 to make further progress.
9. IEC 62274, Record and Verify Systems: A draft NWIP and a questionnaire were distributed and approved. The title of the standard will be changed to “Safety of Radiotherapy Treatment Management Systems.”
10. IEC 60976/60977, Linear Accelerator Performance: A revision per the 4th edition of IEC 60601-2-1 will be proposed.
11. IEC 60601-2-29 Ed2, Simulator Safety: We will consider a revision or expansion for CT sim and MR sim. We will plan to collaborate with 62B. The project will be proposed after publication of 60601-2-1 Ed4.

**Recent publications**

1. TR 63183, Error Messages: Published 12/2019.
2. **Working Group 2 of Subcommittee 62 C**

**Current projects**

1. IEC 61675-1 3rd Ed: Radionuclide imaging devices - Characteristics and test conditions - Part 1: Positron emission tomographs. Project approved in July 2020, 1st CD also circulated July 2020.
2. IEC 63073-1 1st Ed: Dedicated Radionuclide Imaging Devices - Characteristics and Test Conditions - Part 1: Cardiac SPECT. A CDV is currently in preparation.

**Recent publications**

1. IEC TR 61948-4, 2nd Ed: Technical Report on Nuclear medicine instrumentation - Routine tests - Part 4: Radionuclide calibrators.
2. **Working group 3 of Subcommittee 62 C**

**Current projects**

1. IEC 60731: "Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy" **Status:** Working on drafting a new document in a small subgroup to address other detectors other than ion chambers (diodes, diamonds, scintillators, etc). Wes is a part of this subgroup.

**Recent publications**

1. IEC 60580 ED3: “Medical electrical equipment – Dose area product meters”.
2. **Joint Ad-Hoc Group between IEC/SC 62C, IEC/TC 45, and ISO/TC 85/SC 2 on radionuclide calibrators/ionization chambers**

G. Ibbott was appointed to the JAHG whose role is to resolve conflicts and overlapping work programs of IEC/SC 62C, IEC/TC 45 and ISO/TC 85/SC 2. It aims at facilitating decision making to resolve an issue on overlapping and outdated publications for radionuclide calibrators/ionization chambers. When approved and realized, the proposed way forward will result in a new standard (with one or more parts) for the use of the equipment, specifying minimum performance criteria and test methods which accommodate the different user categories. The final report of the JAHG is currently under review. The next steps are being discussed but likely will involve forming a Joint Working Group to be administered by IEC SC 62C, with co-convenors from the three technical committees/subcommittees involved.

Respectfully submitted,

Geoffrey Ibbott

Convenor, IEC 62C/WG 1

Technical Advisor to US National Committee

Chair, US Technical Advisory Group for IEC SC 62C

**22 July 2020**