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| **Reported by (Name):** | **Geoffrey S. Ibbott** |
| **Organization:**  | **Working Group 1, Subcommittee 62C, International Electrotechnical Commission** |
| **Position Title:** | **Convenor** |
| **Activity:** | **Working Group 1 meeting** |
| **Meeting Dates:** | **November 6-10, 2017** |
| **Meeting Location:** | **Siemens Headquarters, Forchheim, Germany** |
| **Payment $:** | **Expense report submitted to American College of Radiology** |
| **Reasons for Attending or not Attending** | **Convenor (chair) of Working Group, and Technical Advisor of US National Committee to the IEC** |
| **Issues from Previous Meetings or Year:** | **Please see report** |
| **General Description of Activities of the Organization and/or Meeting:** | **Please see report** |
| **Issues for AAPM:** | **Please see report** |
| **Budget Request ($):** | **See WGIEC budget request** |

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| ® |  **WG 1 (Forchheim, Nov, 2017)** Meeting Notes version 1 **2017-11-11** |

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**

**Notes from the meeting of WG 1 and its Project teams for IEC 62083 and 62926**

**held November 6-10, 2017 in Forchheim, Germany**

**Meeting venue:**

Siemens Healthineers

Forchheim, Germany

**Participants:**

John Allen

Peter Amm

Norbert Bischof

Alexandra Brehm

John Collins

Stephen Coon

Peter Gruebling

Kazuo Hiramoto

Yuichi Hirata

Claus-Peter Höppner

Geoffrey Ibbott

Thomas Jakob

Kari Jyrkkälä

Keiji Kobashi

Inger-Lena Lamm

Wolfgang Lehmann

Anna Olsson

Jim Percy

Anuj Purwar

Werner Reichel

Hans Sethi

Hiroki Shirato

Johan van den Brink

Mitsuhiro Yoshida

1. **Welcome and housekeeping**

The meeting was convened at 9:00 am on 6 November with seventeen members and guests in attendance. Seven additional members joined later in the week. The group agreed on the agenda and structure of the meeting days. Monday and Tuesday would be spent reviewing an extensive set of comments that were submitted regarding a working group draft of IEC 62926 that had been distributed shortly after the summer meeting. Much of Wednesday morning was spent receiving a presentation from Gabriele Haras, the director of the Advanced Imaging Research Department at Siemens, visiting their customer education center and touring the portion of the plant where CT scanners are assembled. We then reviewed the Working Group’s program of work, assessed the stability dates for all of the WG’s standards, discussed timelines for several of the projects, and considered dates for future meetings. All of Thursday and Friday were devoted to further development of a draft new edition of IEC 62083.

The following agenda items were discussed throughout the course of the week, although not necessarily in the order shown here.

1. **Program of work for the Working Group**

The WG 1 program of work is given here in approximate order of priority for development:

1. IEC 62667 Ed1: The FDIS was approved. IEC 62667 was published on 23 Aug 2017.
2. IEC TR 62926 Ed1: The PT had distributed a WG draft that was reviewed by PT members before the meeting. The comments were discussed in Forchheim and decisions were made. The project leaders will distribute a draft to PT members for review in early December, and by 8 Jan 2018 will provide a third CD to be circulated on 19 Jan for NC comments. The comments on the 3rd CD will be discussed at the WG1 meeting in April 2018. The PT has committed to prepare a DTR to be registered by 5 Oct 2018.
3. IEC 60601-2-1 Ed4: Cohen prepared a CDV that was distributed 27 Sep 2017 with comments due 22 Dec. The compiled comments will be reviewed in April 2018.
4. IEC 62083 Ed2 maintenance: 62C/660/Q was approved, Jakob prepared a WG draft that was reviewed at the meeting. Further work will be done by email, at the April 2018 WG1 meeting, and at a project team meeting to be scheduled in June 2018. We anticipate that a CD will be prepared in the summer and the project will be formally initiated in fall 2018.
5. IEC 61217 Ed2 update: National committees approved this project via 62C/695/DC. Ibbott reviewed discussions held to date with IBA at the WG1 meeting. A preliminary draft will be prepared for the April meeting, and the project will be initiated in late 2018.
6. TR 6XXXX: Cohen has agreed to draft a new TR containing a summary of error messages, currently Annex AF in the CDV of IEC 60601-2-1 4th edition. The Annex will be preserved in the 4th edition until a TR is published, and will be removed either before publication or through a future amendment. WG 1 considers this a high priority so that the TR could be referred to by other standards currently in development (including the 4th edition).
7. IEC 60601-2-68 Amendment 1: The WG considers that an amendment is required to correct gaps and problems in the X-IGRT standard. To prepare Q after the London meeting.
8. IEC 62274: Hans Sethi had circulated a draft NWIP and a Q was distributed. Perhaps due to the timing of the Q, very few countries responded. It appears that NC administrators in several countries decided without expert input either to abstain or to submit a negative vote. A motion will be introduced at the April 62C meeting to reconsider the Q.
9. TR 6XXXX: We plan to propose an IGRT performance standard. We have evidence that at least one national regulatory group is considering this also.
10. IEC 60976/60977: We will consider a revision per 4th edition of IEC 60601-2-1. This is a lower priority than the projects listed above, and will require substantial completion of the 4th edition.
11. IEC 60601-2-68 Update: We will consider an expansion for MR-IGRT, and possibly for other imaging methods. This would possibly be done by developing separate, new part 2 standards 60601-2-xx out of the current 60601-2-68. A proposal will be prepared after publication of the amendment.
12. IEC 60601-2-29 Ed2: Stability date is 2020. 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.
13. **IEC 62926, Ed. 1.0**

Much of two days was spent reviewing comments received on the WG draft distributed in the summer Substantial progress was made, and decisions were reached regarding the annexes. Many editorial changes were made and several definitions will be revised to align with the definitions used in other recent 62C standards. Suggestions were made for improvements to several figures. We agreed to include references to RP-181, NEMA RT-1 and ASTM F-2761.

Plan for future:

1. Main text – July 21 draft with changes following proposals of August meeting in London. Will send to GSI on 9/18, for US group to do English/grammar review by 9/19.
2. Revise Annex A: GSI and US TAG clinical members to review by Sept 7, comment to John Allen to make revisions.
3. No changes to Annex B (gating): Japan
4. No changes to Annex C (tracking): Japan
5. No changes to Annex D (dynamic phantom): Japan
6. Revised Annex: Johan – Sept 7
7. Modifications of 4.2.1: Johan (finished)
8. 22 September, Japan circulate next draft of TR 62926. PT members will be asked to submit comments using the official IEC form by 22 October.
9. 15 Sept deadline for comments from WG1 and consensus on revised CC
10. Discuss at meeting in Forchheim – JP prefers to meet Nov 6-7.
11. Japan produce CD3 following November meeting, for submission to CO by Dec 15. Will request comments due date of March 23.
12. Next WG1 meeting in London in 9-16 April.
13. 5 October 2018, register DTR with CO.
14. **Revision of IEC 62083, Ed. 2.0 (62C/684/RQ)**

Thomas Jakob and Hans Sethi had distributed several more drafts of the new edition of the treatment planning standard, which had been commented on by the Project team by email and through submission of “homework”. The Project team broke up into four sub-groups: Knowledge-based planning and algorithm development; imaging equipment modeling; brachytherapy equipment; and document restructuring. The full group met on several occasions to focus on different parts of the draft. Much discussion was held on how the “prescription” should be captured and reported by a treatment planning system, and what data should be included in the “report”. The issue of the security of code was discussed; this is complicated by the extensive use by most manufacturers of standard code from 3rd parties. Homework was assigned. A new WG draft will be prepared for discussion at the next meeting in April 2018. A Project team meeting is tentatively scheduled for June 11-13, 2018 in Crawley. We anticipate distributing a first CD immediately after the June meeting, for review at the fall 2018 meeting of WG1. The project will be formally initiated at this time.

1. **Radioactive source security**

At the last meetings of SC 62C and TC 62 in Frankfurt, autumn 2016, document IEC 62C/673/INF - NWIP: Security arrangements for medical equipment using high-activity radioactive sources was discussed. Norbert Bischof introduced the item at the German mirror group of the German National Committee and there was a brief discussion about it. Germany has a standard (DIN 25422) in place, dealing with similar items.

The German Committee is interested in participating with experts in the preparation of the work item. The experts are: Dr. Wolfgang Baus, Uniklinikum Köln, and Mr. Thomas Burke, Bayerisches Landesamt für Umwelt.

1. **Next meetings of WG 1 and project teams**
2. April 9-20, 2018: Meeting of TC 62, its subcommittees and working groups. BSI offices in London. WG 1 is scheduled to meet April 16-19.
3. June 11-13 2018: Tentative meetings of the project team for IEC 62083. Location is proposed to be Crawley.
4. Fall 2018: Plenary meeting of Working Group 1, location TBD.

Respectfully submitted,

Geoffrey Ibbott

Convenor IEC 62C/WG 1