

Reported by (Name):	Wesley Culberson
Organization:	University of Wisconsin – Madison
Position Title:	Assistant Professor UWADCL Director
Activity:	IEC subcommittee 62C Working Group 3 meeting
Meeting Dates:	June 15-16, 2017
Meeting Location:	Dresden, Germany
Payment \$:	(see below)
Reasons for Attending or not Attending	I am a technical expert on radiation dosimetry representing the interests of the AAPM and am a member of the AAPM Working Group for IEC (WGIEC).
Issues from Previous Meetings or Year:	A number of radiation dosimetry standards were discussed at the meeting. The outstanding issues are detailed in the attached meeting agenda. DAP meters were a large part of the discussion. Also, the creation of new x-ray standards for scintillators, diodes, and diamond detectors for RT applications were discussed heavily.
General Description of Activities of the Organization and/or Meeting:	The IEC sets performance and safety standards for manufacturers of equipment being used in radiation therapy. Working Group 3 deals specifically with the radiation dosimetry standards. Constant work is required to ensure the best safety for our AAPM members as well as the most accurate deliveries of dose to the patients in radiation therapy.
Issues for AAPM:	Incorporation of diodes and scintillators as standard dosimeters in radiation therapy, accurate calibrations of well chambers, and inclusion of international standard beams in therapeutic x-ray therapies. A new standard for these detectors is being developed in this Working Group.
Budget Request (\$):	Total travel reimbursement request for 2017= \$3,825.14

MEETING OF SC62C WG 3, 15th and 16th June 2017

To be held in Dresden, Germany
Local organizer: Dr. Bettina Jakob (member of WG 3)

Meeting room:

VacuTec Meßtechnik GmbH
Dornblüthstr. 14
01277 Dresden
Germany

Time schedule:

Thursday, June 15, 9:00 a.m. – 5:00 p.m.
Friday, June 16, 8:30 a.m. – 12:00 p.m.

Meeting
Agenda

AGENDA (VERSION 2017-05-18)

1. Opening of the Meeting
2. Approval of the Agenda
3. Confirmation of the minutes of the meeting held in Washington, August 2016
(Attachment 01)
4. Report of
 - Secretary of SC62C
 - Convenor to WG3
5. Project IEC 60580 ED3: "Medical electrical equipment – Dose area product meters"
 - a) Discussion of the comments received to 62C/682/CD (Closing date 2017-04-21)
(Attachment 02)
 - b) Drafting of CDV (Target 2018-03-30)
6. IEC 60731: "Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy"

Stability date of existing part 1 is 2021. Discuss results (62C/680/RQ, dated 2017-01-20) of Questionnaire (62C/651/Q, closing date 2016-08-05).
(Attachment 03)

Bernd will present the outline of a possible part 2.
7. IEC 61676 Edition 1.1 2009-01: "Medical electrical equipment – Dosimetric instruments used for non-invasive measurement of X-ray tube voltage in diagnostic radiology"

Stability date is 2018. Discuss results (62C/681/INF dated 2017-01-20) of Document for comments (62C/649/DC closing date 2016-08-05).
(Attachment 04)

Doug will present waveforms as nowadays measured on diagnostic x-ray devices.
8. IEC 61267 "Medical diagnostic X-ray equipment – Radiation conditions for use in the determination of characteristics"

Stability date 2018. Revision decided but project not yet initialized. Discussion of revision points prepared by Ludwig.

9. IEC 61674 Edition 2.0 2012-11: "Medical electrical equipment – Dosimeters with ionization chambers and/or semiconductor detectors as used in X-ray diagnostic imaging"

Stability date 2019. The standard needs an update. Project not yet initialized. Discussion of revision points prepared by Ludwig.

10. NWIP "Therapy radiation qualities"

Ludwig will present the radiation qualities currently in use worldwide in this area. The NWIP was not yet initialized by the German NC.

11. NWIP "Medical electrical equipment – Dosimetric instruments used for non-invasive measurement of half-value layers in diagnostic radiology"

NWIP was not yet initialized by the Swedish NC. Do we really need such a standard? If yes, who will initialize it?

12. Further work, any other business and place and date of the next meeting

MEETING OF SC62C WG 3, 4th and 5th August 2016

Unconfirmed Minutes (2016-08-12)

Held after the 2016 AAPM Annual Meeting, in Washington, D.C., USA
Local organizer: Doug Pfeiffer (member of WG 3)

Meeting room:

Cherry Blossom Room, Mezzanine level in the Marriott Marquis
Marriott Marquis Washington, DC
901 Massachusetts Ave. NW
Washington, DC 20001
(202) 824-9200

Previous year's
Meeting minutes.
(2016)

Time schedule:

Thursday, August 04, 1:00 p.m. – 5:00 p.m.
Friday, August 05, 9:00 a.m. – 5:00 p.m.

Participants:

- Ludwig Büermann (Convenor)
- Bernd Allgaier
- Edmund Schüle
- Doug Pfeiffer
- Wes Culberson

Guest:

- Alan B. Cohen (US), Chair of SC 62 C (only on Thursday)
- Dr. Bettina Jakob (Vacutec GmbH, Germany, manufacturer of DAP chambers)

AGENDA

1. Opening of the Meeting

The convenor opened the meeting. The two guests were introduced.

2. Approval of the Agenda

The agenda was approved.

3. Confirmation of the minutes of the meeting held in Stockholm, June 2015

The Stockholm minutes were confirmed.

4. Report of Convenor to WG3

The convenor informed the members about the following topics:

- Current member list
- Paul Sunde retired
- Status of standards maintained by WG 3
- Report from WG 3 to SC 62C for the meeting in Kobe/Japan, on November 12th, 2015
- TC62/SC62C: Unconfirmed minutes of the meeting in Kobe/Japan, November 12, 2015
- Scope conflict: ISO/TC85/SC2_WG22 „Gamma Knife“
- MRI_LINAC_EURAMET_ISO_IEC another scope conflict?
- EURAMET_Project 15NRM02 (relates to IEC 61676)
- INFO about EMPIR Project 15HLT05
- INFO about EMPIR Project 15HLT08

5. Revision of IEC 60580: "Medical electrical equipment – Dose area product meters"

New stability date is 2018. The last draft of a new edition was presented by Doug. Some final points were discussed and agreed upon. Doug will update the draft accordingly as soon as the comments of the NCs to the 62C/650/Q (closing date 2016-08-12) are available. Comments will be addressed and changes/additions included if necessary. Next, Doug will copy the updated draft to the collaboration tool. Members of WG3 shall review the draft and give their comments until end of October. The agreed CD shall be circulated by Norbert in November 2016.

Actions:

Update CD to the agreed changes during the Washington meeting (Doug).

Take account of the NC comments 62C/650/Q and update CD if necessary (Doug).

Copy final CD to collaboration tool (a.s.a.p., Doug)

Read and agree on CD (all members, until the end of October).

Circulate CD to the NCs (Norbert, in November 2016).

6. Revision of IEC 61267 "Medical diagnostic X-ray equipment – Radiation conditions for use in the determination of characteristics"

New stability date is 2018. The comments to the 2015 Questionnaire of JP and NL were addressed (see 615_CC_62C_615_Q_R_Washington.docx). It was decided, to include all radiation qualities currently used in mammography. Instead "nominal" HVL write HVL and the limits of variation which shall be met.

Actions:

Ludwig will prepare a draft of the update until the next meeting.

7. IEC 61674 Edition 2.0 2012-11: "Medical electrical equipment – Dosimeters with ionization chambers and/or semiconductor detectors as used in X-ray diagnostic imaging"

Stability date is 2019. The standard needs an update. It was decided, to include a new modality range for contrast-enhanced digital breast tomosyntheses. The minimum rated range could be 40 kV – 50 kV and the reference 45 kV. Table 4 needs check for mammography qualities.

Actions:

Ludwig will prepare a draft until the next meeting.

8. IEC 61676 Edition 1.1 2009-01: "Medical electrical equipment – Dosimetric instruments used for non-invasive measurement of X-ray tube voltage in diagnostic radiology"

Stability date is 2018. 62C/649/DC (2016-08-05) was circulated. It was discussed whether the quantity practical peak voltage is still needed. This point was discussed controversially. Doug will compile waveforms as nowadays measured on diagnostic x-ray devices until the next meeting. WG3 will wait for the comments of the NCs to 62C/649/DC (closing date 2016-08-05) and discuss the topic again on the next meeting.

Actions:

All members: View the NCs comments. Think about pros and contras of the quantity "practical peak voltage". What could be the alternative?

9. NWIP "Therapy radiation qualities"

Ludwig presented a short report about primary standards for absorbed dose to water at medium-energy x-rays, radiation qualities which are in use and the results of the first international comparison of primary absorbed dose to water standards in the medium-energy X-ray range (published in Metrologia 53 (2016) Techn. Suppl. 06007). Ludwig will compile the radiation qualities currently in use worldwide in this area and present them at the next meeting.

Actions:

Ludwig will initialize a NWIP by the German NC and prepare a WD until the next meeting. .

10. New Project "Medical electrical equipment – Dosimetric instruments used for non-invasive measurement of half-value layers in diagnostic radiology"

Ludwig gave a short status report. Nothing was done since the last meeting in Stockholm.

Actions:

Tomas will initialize a NWIP by the Swedish NC and prepare a WD until the next meeting.

11. IEC 60731: "Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy"

The group will wait for the votes and comments of the NCs to 62C/651/Q (closing date 2016-08-05). Bernd will prepare an outline of a possible part 2 of the standard which addresses other detectors than ionization chambers. It was agreed that the part 2 should be drafted in close correspondence to part 1.

Actions:

Bernd will prepare the outline of a possible part 2 of the standard and present it at the next meeting.

12. Further work, any other business and place and date of the next meeting

Dr. Bettina Jakob invited the group to have the next meeting in 2017, June 22-23 at VacuTec Meßtechnik GmbH, Dornblüthstr. 14, 01277 Dresden. WG 3 thanks Bettina for this great offer.

13. Close of the meeting

The convenor closed the meeting on Friday, August 5 at 11:35 a.m.