



**INTERNATIONAL**

Standards Worldwide

*Subcommittee E10.01 on*

**RADIATION PROCESSING: DOSIMETRY AND APPLICATIONS**

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**PROGRESS REPORT 69**

**July 2010**

**TO:** Subcommittee Members, Industry Groups

**FROM:** John R. Logar, E10.01 Chairman

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# E10.01 UPDATES

## 1. EXECUTIVE SUMMARY

The June 2010 meeting in St. Louis, MO was held in conjunction with the E10 Committee Week. We had a total of 31 E10.01 members attend the meeting. The week consisted of three days of task group breakout sessions that included work on 10 standards in revision. Highlights from the meeting follow.

### **Planning the 7<sup>th</sup> Workshop on Dosimetry:**

I am happy to announce that planning of the 7<sup>th</sup> International Workshop on Radiation Dosimetry is well underway. We have received a commitment from ASTM that the workshop can be held in conjunction with the June 2012 E10 committee week at the Sheraton San Diego Hotel & Marina in San Diego, CA. We can now focus on number of participants and hotel related activities.

Also, the workshop chairs, John Williams, Baxter Healthcare, and Deepak Patil, Steris-Isomedix Services, have identified key committee members and received commitments from them regarding their ability to serve on the workshop planning committee and to lead key portions of the workshop. This workshop committee member list and responsibilities is as follows:

2012 Dosimetry Workshop Organizing Committee List

<b>Name</b>	<b>Role</b>
Bailey, Mark	Plenary Chair - SPC
Calvert, Glenn	2009 Workshop chair
Cleghorn, Denise	E10.01 Secretary
Craven, Emily	Plenary Chair - Influence Quantity
Jansson, Jon	Hands-on Chair
Logar, John	E10.01 Chair
Lundahl, Brad	Plenary Chair - Calibrations
Pageau, Mike	Plenary Chair - Dose Mapping
Patil, Deepak	Workshop Co-Chair
Rickey, John	Companions Program Coordinator
Sidereas, Pete	Poster committee chair
Williams, John	Workshop Co-Chair
Wixel, Pat	U.S. Regulatory talk
Tracy, Ryan	Site visit coordinator.

In addition, the preliminary schedule has been worked out and we are actively working on the first announcement. Work will continue through the fall with conference calls and we expect to have a workshop planning meeting the Sunday prior to the January 2011 meeting in Baltimore. Details will follow.

On a sad note, Dorothy Fitzpatrick is retiring as ASTM Manager of Symposia Operations in August. We would like to publicly thank Dorothy for all of her hard work and dedication in our previous workshops and we wish her all the best in her future endeavors. For questions or comments on the 7<sup>th</sup> Workshop, send an email to Deepak Patil at [deepak\\_patil@steris.com](mailto:deepak_patil@steris.com) or John Williams at [john\\_a\\_williams@baxter.com](mailto:john_a_williams@baxter.com).

### **Changes in E10.01**

- Dr. Roberto Uribe has agreed to take over as chair of the Mathematical Modelling Standard (E2232).
- Paul Mellor, Best Medical, has offered to chair the blood irradiation standard (51939) as well as chair the dry storage irradiator standard (E2116)
- Mike Pageau has agreed to co-chair the CTA Dosimetry standard (51650) along with Dr. Takuji Kojima. Kishor Mehta has agreed to be a vice-chair for the standard.
- Peter Sharpe identified the need for a co-chair for the Fricke standard E1026. An action item was set to fill this vacancy.

### **E10.90 / E10 Meeting Highlights**

- Staff report Finances: E10 funds \$24,617, E10.01 \$38,618
- New Members / Termination List (After 5 missed ballots, automatically will be dropped, and the member must request to be allowed to vote. The membership continues, only the opportunity to vote is removed). Reminder to please register your vote. Abstain if needed. We have five (5) E10.01 members on the delinquent list to be contacted.
- Minutes can be found on the E10 page.

### **E10.01 Funding**

The current balance of funds for our subcommittee is over \$38,000, thanks in part to the 6<sup>th</sup> workshop. These funds enable us to continue to sponsor key individuals to come to meetings and support our standards development. In addition, we are in a position to support non-profit industry organizations and workshops that promote and use ASTM E10.01 standards. Organizations and workshops we have committed to sponsor and support financially are as follows:

- CIRMS 2010 Annual Meeting –Organizational Member & Student Sponsor
- The PANEL Dosimetry Course – Sponsor
- IMRP 2011 – Student Sponsor

We will continue to monitor industry events and look for ways to support those that support us.

### **Meeting Presentations**

During the meeting in St. Louis, we had two planned and given. Dr. Mark Bailey, NPL, gave a presentation on the Statistical Process Control Method described in the Panel publication and how this approach will become the framework for the new ASTM standard on Statistical Process Control. If you are interested in this presentation, please contact Dr. Bailey at [mark.bailey@npl.co.uk](mailto:mark.bailey@npl.co.uk). The second presentation was given by Brad Lundahl, Sterigenics International, on “Cobalt Source Loading Equivalency Testing” and the method he developed for determining statistically whether two source loading can be deemed equivalent. If you are interested in this presentation, please contact Brad Lundahl at [sclb5@cox.net](mailto:sclb5@cox.net). Currently, we do not have any presentations lined up for the January 2011 meeting. If you would like to conduct a presentation or conduct a discussion on a topic of interest at an upcoming meeting, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com). These time slots are filled on a first come first served basis.

### **Management Task Group Updates**

**Administration** – We have successfully transitioned from two membership lists to one. The only list we will maintain is the membership list as it is at ASTM. This means that if you are not a member of ASTM and E10.01 you will not be on our official roster and you may miss out on communications within the subcommittee. It is very important that you keep your ASTM profile information up to date. Please take the time to review the updated membership list in Attachment A. If you need any changes made to your personal information, please log into ASTM and make the changes in their system. If you have membership questions, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com). The Task Group Affiliation questionnaire was submitted to all committee members following the San Antonio meeting. This information was gathered and put into the new ASTM E10.01 Task Group Matrix. This workbook enables members to quickly see who from the committee is in specific task groups which in turn enables task group chairs the ability to effectively communicate with members. It is very important to keep your TG affiliations up to date. If you need to make changes or have questions regarding the matrix, or would like a copy of the workbook, please contact John Rickey at [rickey@fwf.com](mailto:rickey@fwf.com). In addition, E10.01 Progress Reports are on the Website under subcommittee minutes. The task group is keeping up to date with requested information and links that should be on the ASTM E10 webpage. Denise has been very successful in ensuring the current links are accurate and the addition of new links is completed in a timely manner. If you need any changes or links added to the website that pertain to E10.01 please contact Denise Cleghorn at [cleghord@bsci.com](mailto:cleghord@bsci.com).

**Balloting - Chair:** Rod Chu **Co-Chairs:** Kishor Mehta, Ryan Tracy, Fred Halperin

As a result of the introduction of the new ISO electronic Systematic Review with review automatically started 3 years after publication, 19 of the 25 ISO/ASTM standards are now being revised. Four ISO/ASTM standards have been published by ISO and ASTM as revisions in June 2009. The other two standards are awaiting ISO ballot results for reapproval. The restructuring of the standards with the new E 2628 as the top document

requires most of the standards to have major revisions. This will cause a significant increase in the work of the Management Task Group on Balloting in the next few years.

The balloting of standards is complicated by the fact that E10.01 produces both ISO/ASTM standards and ASTM standards. The balloting of ISO/ASTM standards follows the maintenance procedures in ISO/TC 85 N 928. ASTM standards are balloted following the procedures in the ASTM Green book. Each Task Group Chair is responsible for providing a document suitable for direct submission to ASTM for balloting. This ASTM version is usually a red-lined version showing the changes. If the document is to be balloted by ISO, a clean version in the ISO format is needed and a Management Task Group member must work with the ASTM editor to convert the document into the ISO format.

To assist the members of the Management Task Group on Balloting in understanding the procedures to be followed at the different stages of the ASTM or ISO/ASTM balloting, a summary of the specific duties to be performed has been prepared. However, Task Group Chairs should not assume that poorly edited versions can be submitted to the Task Group on Balloting. It is the responsibility of the Task Group Chairs to provide documents that should be ready for direct submission to ASTM for balloting or for preparation of the draft in the ISO format.

***Education & Promotion*** - This team continues to be focused on the next workshop and has begun activities associated with the planning and announcements. In addition, the subcommittee is currently outlining plans for a tutorial session to be conducted during the workshop portion of IMRP 2011 – details to follow.

#### **Task Group Chair Responsibilities –POLICY REMINDER**

AS A REMINDER we are moving into a very busy time with almost all of standards under some type of revision, we need to move standards along through the review periods and ballot process in a timely and effective manner. The task group chair must make every effort to get updated drafts and comments out to the task group and/or subcommittee in plenty of time as to provide an adequate review and comment period. In addition, all changes to a draft standard must be completed at least THIRTY DAYS prior to meeting in order to give task group members enough time to adequately prepare for the meeting and subsequent breakout sessions. Also, ASTM will send out a comments page when the standards go out to subcommittee, and similar to ISO comments, it will include a column to identify comments as Technical (T) or Editorial (E). All members will be required to submit comments on this form; this will help with the consolidation and review of comments. As we move through the revision process, we must also be sure the definitions section of each standard is up to date with what is in our E10.01 Glossary. The glossary was sent out to all of the TG chairs and it is your responsibility to ensure the definitions are updated as required. If you did not receive a copy of the glossary, please let me know and I will ensure you get a copy. It is the ultimate responsibility of the Executive committee to make sure that things move forward efficiently but we rely on the task group chairs to be the main driver. For comments or suggestions on these policies, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com).

#### **Consolidation of Existing Standards**

The combination of two existing standards, “ISO/ASTM 51204: Practice for Dosimetry in Gamma Irradiation for Food Processing” with “ISO/ASTM 51702: Practice for Dosimetry in Gamma Irradiation Facility for Radiation Processing” is complete. The new revision of ISO/ASTM 51204 is being balloted this fall at the subcommittee level. In addition, the standard “ISO/ASTM 1431: Practice for Dosimetry in Electron Beam and X-ray (Bremsstrahlung) Irradiation Facilities for Food Processing” is being consolidated with “ISO/ASTM 51608: Practice for use of Dosimetry in an X-ray (Bremsstrahlung) Facility for Radiation Processing” and “ISO/ASTM 51649: Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV. If you have any questions or concerns on this effort, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com).

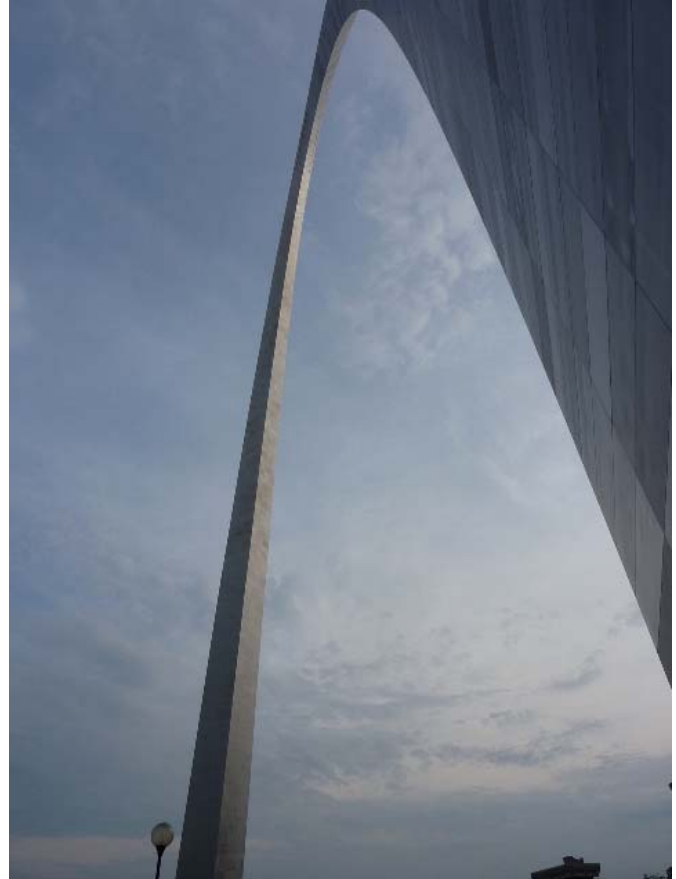
#### **Withdraw of a Current Standard**

Following the January 2010 meeting in San Antonio, TX, it was approved at the sub-committee level to withdraw ISO/ASTM 51400 – Practice for Characterization and Performance of a High-Dose Radiation Dosimetry Calibration Laboratory. This motion carried into a main committee ballot requesting withdraw. The ballot received one negative. During the St. Louis meeting, an agreement was made with the negative voter.



As a reminder, a ballot can be generated at anytime; however the timing when the results will be ready is affected by when they are submitted. Please submit all drafts to Rod Chu a minimum of 10 days prior to the ballot date for preparation. For questions on balloting please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com) or Rod Chu at [rodchu@rogers.com](mailto:rodchu@rogers.com).

**GROUP OUTING – ST. LOUIS:** A small group ventured out during lunch on Wednesday to visit the St. Louis Arch. The arch is truly a remarkable structure and to see it in person was amazing..



Then, following the meeting on Wednesday afternoon a group of 10 took a tour of the Anheuser-Busch Brewery in St. Louis and became Honorary Beermasters for the day. This was a behind the scenes tour of brewery which included seeing the world famous Clydesdales and drinking a beer from a just brewed keg. The tour finished with a sampling of the numerous beers Anheuser-Busch has to offer. Fun was had by all.



We will continue to solicit ideas and suggestions and explore group outing opportunities for each upcoming meeting. It is good to get out and do something fun with fellow industry colleagues (i.e E10.01 members) outside the normal meeting settings. The executive committee is currently looking for an activity following the meeting in Baltimore, MD meeting this January. Please forward any suggestions for future meetings to Denise Cleghorn @ [cleghord@bsci.com](mailto:cleghord@bsci.com).

## 2. ATTENDEES at the June 2010 SUBCOMMITTEE MEETING



Front Row: Kishor Mehta, Arne Miller, Peter Sharpe, Paul Mellor, Pat Weixel, Roger Bett, Alan Montgomery, Joseph Mittendorfer, Michael Beard, Shi-Shen Yau, Roberto Uribe, Denise Cleghorn

Back Row: Mark Bailey, Gary Pageau, Herve Michel, Jon Jansson, Rod Chu, Marsh Cleland, Art Heiss, John Williams, Ryan Tracy, Glenn Calvert, Randy Smith, Brad Lundahl, Louis Matrisciano, Michael Swain, Deepak Patil, Hans Wiegert, John Logar, Chris Bock, Ike Harper

### ATTENDEE AFFILIATION:

Mark Bailey, NPL  
 Michael Beard, BD Medical  
 Roger Bett, Harwell Dosimetry  
 Chris Bock, Beam One  
 Glenn Calvert, BD Medical  
 Rod Chu, Consultant  
 Denise Cleghorn, Boston Scientific  
 Marsh Cleland, IBA Industrial  
 Ike Harper, J&J SPT  
 Art Heiss, Bruker Biospin  
 Jon Jansson, Baxter Healthcare  
 John Logar, Ethicon  
 Brad Lundahl, Sterigenics  
 Louis Matrisciano, Meditech  
 Kishor Mehta, Consultant  
 Paul Mellor, Best Medical

Herve Michel, LEONI Studer  
 Arne Miller, RISO  
 Josef Mittendorfer, Mediscan  
 Alan Montgomery, BD Medical  
 Gary Pageau, GEX Corp  
 Deepak Patil, Steris-Isomedix  
 Peter Sharpe, NPL  
 Randy Smith, Sterigenics  
 Michael Swain, Energy Sciences  
 Ryan Tracy, Steris-Isomedix  
 Roberto Uribe, Kent State  
 Pat Weixel, US FDA  
 Hans Wiegert, Cryovac  
 John A. Williams, Baxter  
 Shi-Shen Yau, Stryker

### 3. NEXT MEETING

E10.01 Meeting: Monday, January 31<sup>st</sup>, 2011 - Wednesday February 2<sup>nd</sup>, 2011. There is no cost to attend this meeting; however, you must pre-register for this meeting (see below). The general meeting will begin at 8:30 am sharp each day and will incorporate reports on sub-committee activities, E10 main committee activities, updates from industry organizations as well as updates from task group chairs on current active standards. Individual task group meetings will follow a daily group meeting.

Meeting Agenda: The Preliminary Agenda for the meeting is attached in Appendix B. The Final Agenda will be issued prior to the next meeting. Suggestions, comments or additions should be sent to John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com).

REGISTRATION: Registration is required for all E10.01 meetings to ensure we have ample meeting space and enables us to properly prepare for the meeting. Registration is done through the ASTM website at [www.ASTM.org](http://www.ASTM.org) via the meetings link. The meeting registration for subcommittee E10.01 is found under the E10 committee link. For questions or assistance on registering, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com)

Industry Presentations: We have scheduled time for presentations regarding to industry and sub-committee interests prior to the lunch break on each of the three meeting days (Monday, Tuesday and Wednesday). If you are interested, please let John Logar ([Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com)) know what you are interested in presenting and what day you would like to present your information. These time slots are filled on a first come, first served basis. Currently there are no slots filled for the upcoming meeting in St. Louis so there is still an opportunity to give a presentation this January.

Social Plans: An E10.01 group dinner will be planned for Monday night, January 31<sup>st</sup>, 2011. In addition, we will look into a group activity in the Baltimore area on Wednesday afternoon following the task group meeting.

Hotel Information: Marriott Waterfront – Baltimore. More information to be provided at a later date.

### 4. E10.01 STANDARDS NOW COMPLETED

Subcommittee E10.01 has completed the following 38 standards:

ISO/ASTM 51204:2004 Practice for Dosimetry in Gamma Irradiation Facilities for Food Processing  
ISO/ASTM 51205:2009 Practice for Use of a Ceric-Cerous Sulfate Dosimetry System  
ISO/ASTM 51261:2002 Guide for Selection and Calibration of Dosimetry Systems for Radiation Processing  
ISO/ASTM 51275:2004 Practice for Use of a Radiochromic Film Dosimetry System  
\*ISO/ASTM 51276:2002 Practice for Use of a Polymethylmethacrylate Dosimetry System  
ISO/ASTM 51310:2009 Practice for Use of a Radiochromic Optical Waveguide Dosimetry System  
ISO/ASTM 51400:2003 Practice for Characterization and Performance of a High-Dose Radiation Dosimetry Calibration Laboratory  
ISO/ASTM 51401:2003 Practice for Use of a Dichromate Dosimetry System  
ISO/ASTM 51431:2005 Practice for Dosimetry in Electron Beam and X-ray (Bremsstrahlung) Irradiation Facilities for Food Processing  
ISO/ASTM 51538:2009 Practice for Use of the Ethanol-Chlorobenzene Dosimetry System  
\*ISO/ASTM 51539:2005 Guide for Use of Radiation-Sensitive Indicators  
\*ISO/ASTM 51540:2009 Practice for Use of a Radiochromic Liquid Dosimetry System  
ISO/ASTM 51607:2004 Practice for Use of an Alanine-EPR Dosimetry System  
ISO/ASTM 51608:2005 Practice for Dosimetry in an X-Ray (Bremsstrahlung) Facility for Radiation Processing  
\*ISO/ASTM 51631:2003 Practice for Use of Calorimetric Dosimetry Systems for Electron Beam Dose Measurements and Routine Dosimeter Calibrations  
ISO/ASTM 51649:2005 Practice for Dosimetry in an Electron-Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV

ISO/ASTM 51650:2005 Practice for Use of a Cellulose Triacetate Dosimetry System  
ISO/ASTM 51702:2004 Practice for Dosimetry in Gamma Irradiation Facilities for Radiation Processing  
ISO/ASTM 51707:2005 Guide for Estimating Uncertainties in Dosimetry for Radiation Processing  
ISO/ASTM 51818:2009 Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 80 and 300 keV  
ISO/ASTM 51900:2009 Guide for Dosimetry in Radiation Research on Food and Agricultural Products  
ISO/ASTM 51939:2005 Practice for Blood Irradiation Dosimetry  
ISO/ASTM 51940:2004 Guide for Dosimetry for Sterile Insect Release Programs  
ISO/ASTM 51956:2005 Practice for Use of Thermoluminescence-Dosimetry (TLD) Systems for Radiation Processing  
ISO/ASTM 52116-2002 Practice for Dosimetry for a Self-Contained Dry-Storage Gamma-Ray Irradiator  
ASTM E 1026-04 Practice for Using the Fricke Reference Standard Dosimetry System  
ASTM E 2232-10 Guide for Selection and Use of Mathematical Methods for Calculating Absorbed Dose in Radiation Processing Applications  
ASTM E 2303-03 Guide for Absorbed-Dose Mapping in Radiation Processing Facilities  
ASTM E 2304-03 Practice for Use of a LiF Photo-Fluorescent Film Dosimetry System  
ASTM E 2381-04 Guide for Dosimetry in Radiation Processing of Fluidized Beds and Fluid Streams  
ASTM E 2449-05 Guide for Irradiation of Pre-packaged Processed Meat and Poultry Products to Control Pathogens and Other Microorganisms  
ASTM E 2628-09 Practice for Dosimetry in Radiation Processing  
ASTM E 2701-09 Guide for Performance Characterization of Dosimeters and Dosimetry Systems for Use in Radiation Processing  
ASTM F 1355-06 Guide for Irradiation of Fresh Agricultural Produce as a Phytosanitary Treatment  
ASTM F 1356-08 Guide for Irradiation of Fresh and Frozen Red Meat and Poultry to Control Pathogens and Other Microorganisms  
ASTM F1640-09 Guide for Selection and Use of Packaging Materials for Foods to be Irradiated  
ASTM F1736-09 Guide for Irradiation of Finfish and Aquatic Invertebrates Used as Food to Control Pathogens and Spoilage Microorganisms  
ASTM F1885-04 Guide for Irradiation of Dried Spices, Herbs, and Vegetable Seasonings to Control Pathogens and Other Microorganisms

\*Standards have been approved within ASTM and must go through the ISO balloting process and be approved via ISO prior to publication.

## 5. HOW TO OBTAIN COPIES OF OUR DOSIMETRY STANDARDS

**Individual Standards.** Those wishing to purchase a copy of any ASTM or ISO/ASTM standard may obtain it by contacting the Customer Service Department, ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, USA, by calling +1 (610) 832-9585, or by faxing +1 (610) 832-9555. Customers and members may also download any standard (for a charge) from the ASTM website at [www.ASTM.org](http://www.ASTM.org). This information is in the “ASTM Store” under “ordering information” or you may contact ASTM by e-mail at [service@astm.org](mailto:service@astm.org). ASTM accepts Visa, MasterCard and American Express. ASTM members receive a volume of standards free with their annual membership. For more information on standards, please contact the E10.01 staff manager, Joe Koury at [jkoury@astm.org](mailto:jkoury@astm.org).

**Compilation of Dosimetry Standards referenced in ISO 11137.** ASTM offers a compilation of 14 ASTM and ISO/ASTM standards that are directly referenced in ISO 11137-3:2006. The goal of this compilation was to enable users of the ISO 11137 standard to purchase, at a discounted price of \$99 per year, all the necessary ASTM related references to ISO 11137 and not have to worry about whether or not they had the most up to date copy. This set is also available for use in multiple sites at an additional cost – please contact ASTM for details on multi-site licenses. **The ASTM Stock Number is: STERIL07.**

## 6. PERSONAL NOTES

## **JOHN LOGAR**

ASTM committee E10 presented John Logar with the “Peter D. Hedgecock” award which is the E10 Award of Merit. The award recognizes a member’s sustained and exceptional contribution to the development and use of consensus standards in the field of nuclear technology and its applications as well as their outstanding personal performance in service to Committee E10 or to one of its technical subcommittees.



John Logar with E10 Chairman, David Vehar

## **7. MEMBERSHIP**

**Current Membership Information:** The updated Membership List can be found in Attachment A to this Progress Report. The membership list is also available in the “Rosters” section on your committee’s page following login. This is not available without an annual ASTM membership and website password. Members are urged to review the data for accuracy. Corrections should be made directly through the ASTM website. Comments or suggestions should be sent to the E10.01 Secretary, John Rickey at [rickey@fwt.com](mailto:rickey@fwt.com).

**TG Chair/Co-chair/Vice Chair Openings:** Once again we are in need of individuals to fill TG Chair/Vice Chair openings. As the subcommittee continues to work and grow, we need new individuals to take on additional responsibility. This is a great opportunity to get involved and really make a difference in the development or revision of an industry standard. Your assistance and willingness to take on this responsibility contributes directly toward the success of our subcommittee. If you are interested in becoming a chair or vice-chair for a specific standard, please contact John Logar at [Jlogar8@its.jnj.com](mailto:Jlogar8@its.jnj.com).

**Deadbeats List:** Members are reminded that failure to vote on three consecutive ballots will result in the termination of your voting status in Subcommittee E10.01 unless the E10.01 Chair in conjunction with the E10

Executive Committee grants a waiver. All members are encouraged to review and vote on in ballots regularly. This ballot process is critical to the success of ASTM and the development of good standards.

**Application for ASTM Membership:** ASTM membership is not required for participation in subcommittee activities, but membership is needed in order to have a formal vote (and veto) when standards are balloted. The annual membership fee is \$75 per year. Please note that this membership fee for joining ASTM includes a free subscription to the monthly ASTM magazine, “Standardization News” and a free volume of the Annual Book of ASTM Standards (normally costing \$210 US). The Annual Book of ASTM Standards includes 155 completed standards on various subjects, including all of the E10.01 published standards. Along with the benefits of membership comes the responsibility to actively participate by voting on all ballots issued by Subcommittee E10.01 and Committee E10. Failure to meet the responsibility for three consecutive ballots will usually result in declassification and eventually the removal from our rosters. We strongly encourage you to actively participate and have your views fully considered by becoming a voting member of ASTM International. If you are not already a member of ASTM, please contact Joe Koury at [jkoury@astm.org](mailto:jkoury@astm.org) for further information or an application form.

**Standards Volume:** With an annual membership, members are entitled to a volume of standards. The E10.01 standards can be found in ASTM Volume 12.02. It is recommended that members sign up for the “On-line Volume” where you can download individual standards at anytime. The benefit from the on-line membership is that you will have access to the most recently published version of the standard as soon as it is published. With the “CD” volume or “hardcopy” volume you will receive the updated standards at the time the volume is published and may have to wait an entire year to get recently published standards. For questions on the various volume options, please contact John Logar at [Jlogar8@its.nj.com](mailto:Jlogar8@its.nj.com).

## 8. SPECIFIC ACTIONS ON STANDARDS

The status of the 39 standards produced and maintained by ASTM Subcommittee E10.01 is summarized in Tables 1-5 below. At present Subcommittee E10.01 is responsible for maintaining 25 ISO/ASTM Dosimetry standards, 7 ASTM Dosimetry standards, 6 Food Irradiation standards, and a Glossary of the terms used in the dosimetry standards. Updates on the activities of the active Task Groups are provided following the charts.

**TABLE 1: SUMMARY OF STATUS OF THE 25 ISO/ASTM DOSIMETRY STANDARDS**

STANDARD	NAME	TG	CHAIR	CO-CHAIRS	STATUS
ISO/ASTM 51204	Practice for Dosimetry in Gamma Irradiation Facilities (New Title)	B	Kim Morehouse	John Logar, Kishor Mehta	Current edition approved June 30, 2004; published August 15, 2004. ISO electronic Systematic Review closed March 17, 2008. Decision was made to withdraw 51702 and include other products in 51204. See update following Table 1.
ISO/ASTM 51205	Practice for Use of a Ceric-Cerous Sulfate Dosimetry System	V	Rod Chu		New edition, ISO/ASTM 51205-09, was published June 2009.
ISO/ASTM 51261	Practice for Calibration of Dosimetry Systems for Radiation Processing (New Title)	R	Brad Lundahl	Peter Sharpe, Marc Desrosiers, Kevin O’Hara	Current edition approved January 22, 2002; published March 15, 2002. Being revised as major revision with title change. See update following Table 1.
ISO/ASTM 51275	Practice for Use of a Radiochromic Film Dosimetry System	U	John Rickey	Gary Pageau	Current edition approved April 5, 2004; published June 15, 2004. ISO electronic Systematic Review closed December 17, 2007. Being revised as a major revision. See update following Table 1.
ISO/ASTM 51276	Practice for Use of a Polymethylmethacrylate Dosimetry System	P	Roger Bett	Deepak Patil Paul Mellor	Current edition approved June 4, 2002; published December 15, 2002. Passes ASTM Ballot. Waiting for ISO ballot. See update.

ISO/ASTM 51310	Practice for Use of a Radiochromic Optical Waveguide Dosimetry System	ee	John Rickey	Mike Saylor	Current edition approved April 5, 2004; published June 15, 2004. ISO electronic Systematic Review closed December 17, 2007. ASTM ballot for reapproval was affirmative. Waiting for ISO ballot.
ISO/ASTM 51400	Practice for Characterization and Performance of a High-Dose Radiation Dosimetry Calibration Laboratory	C			To be withdrawn. ASTM ballot for withdrawal was affirmative. Waiting for ISO ballot.
ISO/ASTM 51401	Practice for Use of a Dichromate Dosimetry System	D	Peter Sharpe	Rod Chu	Approved February 27, 2003; published July 15, 2003. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51431	Practice for Dosimetry in Electron Beam and X-ray (Bremsstrahlung) Irradiation Facilities for Food Processing	A	Kishor Mehta	Marsh Cleland	To be withdrawn. Decision was made to combine with ISO/ASTM 51649 and ISO/ASTM 51608. See updates on following Table 1.
ISO/ASTM 51538	Practice for Use of the Ethanol-Chlorobenzene Dosimetry System	Q	Dušan Razem	András Kovács	New edition, ISO/ASTM 51538-09, was published June 2009.
ISO/ASTM 51539	Guide for Use of Radiation-Sensitive Indicators	E	Mark Murphy	Tom Menezes	Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51540	Practice for Use of a Radiochromic Liquid Dosimetry System	K	John Rickey	Mike Saylor	Current edition approved April 5, 2004; published June 15, 2004. ISO electronic Systematic Review closed December 17, 2007. ASTM ballot for reapproval was affirmative. Waiting for ISO ballot.
ISO/ASTM 51607	Practice for Use of an Alanine-EPR Dosimetry System	F	Marc Desrosiers	Arthur Heiss John Logar	Current edition approved June 30, 2004; published August 15, 2004. The ISO electronic Systematic Review closed March 17, 2008. Being revised as a major revision. See update following Table 1.
ISO/ASTM 51608	Practice for Dosimetry in an X-ray (Bremsstrahlung) Facility for Radiation Processing	M	Marsh Cleland	Herve Michel	Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic review closed September 15, 2008. See update following Table 1.
ISO/ASTM 51631	Practice for Use of Calorimetric Dosimetry Systems for Electron-Beam Dose Measurements and Dosimeter Calibrations	H	Arne Miller	Mark Bailey	Current edition approved May 28, 2003; published July 15, 2003. Passed ASTM ballot. Waiting for ISO ballot. See update following Table 1.
ISO/ASTM 51649	Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV	T	Josef Mittendorfer	Marsh Cleland, Peter Baker	Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51650	Practice for Use of a Cellulose Triacetate Dosimetry System	W	Mike Pageau	Takuji Kojima Kishor Mehta	Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51702	Practice for Dosimetry in a Gamma Irradiation Facility for				To be withdrawn. Decision was made to combine with ISO/ASTM

	Radiation Processing				51204. See update on ISO/ASTM 51204 following Table 1.
ISO/ASTM 51707	Guide for Estimating Uncertainties in Dosimetry for Radiation Processing	G	Kishor Mehta	Bruce Peterson, Rod Chu Shi-Shen Yau	Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51818	Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies Between 80 and 300 keV	L	Gary Pageau	Doug Weiss, Marsh Cleland, Tom Menezes	New edition, ISO/ASTM 51818-09, was published June 2009. However, work has already started on preparing a new revision. See update following Table 1.
ISO/ASTM 51900	Guide for Dosimetry in Radiation Research on Food and Agricultural Products	Z	OPEN	Kishor Mehta	New edition, ISO/ASTM 51900-09, was published June 2009.
ISO/ASTM 51939	Practice for Blood Irradiation Dosimetry	X	Paul Mellor		Current edition approved June 1, 2004; published May 15, 2005. ISO electronic Systematic Review closed December 15, 2008. See update following Table 1.
ISO/ASTM 51940	Guide for Dosimetry for Sterile Insect Release Programs	cc	Dave Lance	Kishor Mehta	Current edition approved June 30, 2004; published August 15, 2004. The ISO electronic Systematic Review closed March 17, 2008. See update following Table 1.
ISO/ASTM 51956	Practice for Use of Thermoluminescence Dosimetry (TLD) Systems for Radiation Processing	aa	Rod Chu	Dave Vehar	Current edition approved January 1, 2005; published May 15, 2005. ISO electronic Systematic review closed September 15, 2008. See update following Table 1.
ISO/ASTM 52116	Practice for Dosimetry for a Self-Contained Dry-Storage Gamma-Ray Irradiator	N	Paul Mellor		Current edition approved June 21, 2002; published December 15, 2002. ISO Systematic Review closed December 31, 2007. See update following Table 1.

#### **TASK GROUP A – ISO/ASTM 51431: Practice for Dosimetry in Electron Beam and X-Ray (Bremsstrahlung) Irradiation Facilities for Food Processing**

**Chair:** Kishor Mehta **Co-Chairs:** Marsh Cleland

**Update:** This standard will be combined with ISO/ASTM 51608, Practice for Dosimetry in an X-Ray (Bremsstrahlung) Facility for Radiation Processing and ISO/ASTM 51649, Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV.

#### **TASK GROUP B – ISO/ASTM 51204: Practice for Dosimetry in Gamma Irradiation Facilities for Food and Other Products**

**Chair:** Kim Morehouse **Co-Chairs:** John Logar, Kishor Mehta

**Update:** The draft standard was reviewed in June and an updated draft was prepared for sub-committee ballot. Ballot results will be reviewed and if they are minor the draft will be updated and sent for main committee ballot prior to the meeting in Baltimore.

#### **TASK GROUP D – ISO/ASTM 51401: Practice for Use of a Dichromate Dosimetry System**

**Chair:** Peter Sharpe **Co-Chair:** Rod Chu

**Update:** A first draft of the revised standard has been prepared and was discussed by the Chair and Co-chair in St. Louis. A number of modifications were made to the document and a new version will be produced and sent to the Task Group for comments. The changes from the published version are all editorial and reflect changes in terminology etc.

### **TASK GROUP E – ISO/ASTM 51539: Guide for Use of Radiation Sensitive Indicators**

**Chair:** Mark Murphy **Co-Chairs:** Tom Menezes

**Update:** No update from the chair. There has been no recent progress on the standard.

### **TASK GROUP F – ISO/ASTM 51607: Practice for Use of an Alanine-EPR Dosimetry System**

**Chair:** Marc Desrosiers **Co-Chairs:** Art Heiss, John Logar

**Update:** The task group met in St. Louis and continues to revise the standard utilizing the new revision of 51276 on PMMA dosimetry. The new revision will be completed and sent for sub-committee ballot this fall.

### **TASK GROUP G – ISO/ASTM 51707: Guide for Estimating Uncertainties in Dosimetry for Radiation Processing**

**Chair:** Kishor Mehta **Co-Chairs:** Bruce Peterson, Rod Chu, Shi-Shen Yau

**Update:** ISO/ASTM 51707 is undergoing its five-year review and revision. The body of the standard has undergone a first revision. The Annexes are presently under revision. Section 3 on Terminology has been revised to bring it current with the present glossary of terms and terms specific to the standard are now in a separate section, i.e., 3.2. References have been updated and terms throughout the standard brought current with the terms in other dosimetry standards. A section was added to the Scope noting compliance with requirements of ASTM E2628 that are related to uncertainty. The first revision of the standard was sent out to all Task Group G members in December 2009 and was a topic for discussion at the January meeting of Subcommittee E10.01 in San Antonio. A principal topic for discussion at the subcommittee meeting in San Antonio was possible overlap of Annex A4 and A5 with annexes in the latest draft revision of 51261. An Ad Hoc group was formed to address this issue with a conference discussion to be scheduled for February 2010 with recommendations by month end. Members of the Ad Hoc group include: Brad Lundahl, Barry Fairand, Emily Craven, Peter Sharpe, John Rickey and Jon Jansson.

### **TASK GROUP H – ISO/ASTM 51631: Practice for Use of Calorimetric Dosimetry Systems for Electron Beam Dose Measurements and Routine Dosimeter Calibration**

**Chair:** Arne Miller **Co-Chairs:** Fred Bateman, Mark Bailey

**Update:** The task group met in St. Louis and resolved the comments received from the subcommittee ballot.

There were two negative votes concerning (1) the calibration procedure and (2) questioning the usefulness of calorimeters on many electron accelerators used in polymer radiation processing. The first negative was resolved and thus withdrawn. The second negative was found non-persuasive by the task group, subcommittee E10.01 and committee E10. Editorial changes were made to the draft standard as a consequence of resolving the voting comments. A revised draft has been circulated to the task group and to all voters who commented. Only minor editorial corrections resulted. The standard will now be sent for full committee ballot as well as ISO ballot.

### **TASK GROUP L – ISO/ASTM 51818: Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies Between 80 and 300 keV**

**Chair:** Gary Pageau **Co-Chairs:** Doug Weiss, Marsh Cleland and Tom Menezes

**Update:** Task Group L met briefly in St. Louis to discuss the necessary actions to revise the 51818 Low Energy Electron Beam document. Recent advances in low energy electron beam calibration practices that now allow a low energy electron beam user to establish an unbroken chain of calibration to a national standard of dose requires revision our existing 51818 document. Arne Miller and Jakob Helt-Hansen have agreed to develop draft language to deal with this new calibration approach for implementation into the 51818 document. A recent publication (J. Helt-Hansen, A. Miller, P. Sharpe, B. Laurell, D. Weiss, G. Pageau;  $D_{\mu}$ —A new concept in industrial low-energy electron dosimetry; Rad. Phys. Chem. 79(2010) 66-74) will become an important new reference in support of this new calibration approach. Revision of the document will also carefully consider describing alternative calibration approaches for those users whose applications do not required the same calibration traceability requirements as those specified for sterilization and food irradiation applications.

### **TASK GROUP M – ISO/ASTM 51608: Practice for Dosimetry in an X-ray (Bremsstrahlung) Facility for Radiation Processing**

**Chair:** Marsh Cleland **Co-Chairs:** Herve Michel

**Update:** This standard is being revised. We are combining elements of ISO/ASTM 51431, Practice for Dosimetry in Electron Beam and X-ray (Bremsstrahlung) Irradiation Facilities for Food Processing with this standard as well

as ISO/ASTM 51649, Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV.

**TASK GROUP N – ISO/ASTM 52116: Practice for Dosimetry for a Self-Contained Dry-Storage Gamma-Ray Irradiator**

**Chair:** Paul Mellor **Co-Chair:** OPEN

**Update:** Revisions to the standard have been made and the standard will go to main committee ballot this fall.

**TASK GROUP P – ISO/ASTM 51276: Practice for Use of a Polymethylmethacrylate Dosimetry System**

**Chair:** Roger Bett **Co-Chairs:** Paul Mellor, Deepak Patil

**Update:** This standard has undergone major revision to accommodate the current general philosophy of E10.01, and to ensure compatibility with the top-tier standards. The format of this revised standard is to be adopted as a template for the standards for the other routine dosimeter systems. When recently balloted the revised standard received comments, but no negative votes. Task Group P met in St Louis, and in a lively and well-attended session accommodated all of the comments as editorial changes. The standard is therefore believed to be acceptable for ASTM publication, and ISO balloting.

**TASK GROUP R – ISO/ASTM 51261: Practice for Calibration of Dosimetry Systems for Radiation Processing**

**Chair:** Brad Lundahl **Co-Chairs:** Peter Sharpe, Marc Desrosiers, Kevin O'Hara

**Update:** The task group chair and co-chairs have been hard at work continuing the revision efforts on this standard. The major revision has re-shaped this standard and we are confident we can pass a main committee ballot this fall. In addition to the current work, a work item has been opened to include a section on reference standard dosimetry system calibration. This section will be drafted and included following a successful main committee ballot.

**TASK GROUP T – ISO/ASTM 51649: Practice for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies between 300 keV and 25 MeV**

**Chair:** Josef Mittendorfer **Co-Chairs:** Marsh Cleland, Peter Baker

**Update:** This standard is under revision. We are combining elements of ISO/ASTM 51431, Practice for Dosimetry in Electron Beam and X-ray (Bremsstrahlung) Irradiation Facilities for Food Processing with this standard and ISO/ASTM 51608, Practice for Dosimetry in an X-Ray (Bremsstrahlung) Facility for Radiation Processing.

**TASK GROUP U – ISO/ASTM 51275: Practice for Use of a Radiochromic Film Dosimetry System**

**Chair:** John Rickey **Co-Chair:** Gary Pageau

**Update:** The standard is being revised utilizing the new revision of 51276 on PMMA Dosimetry as a template. The new revision will be completed and the task group plans to ballot the latest draft at the subcommittee level this fall.

**TASK GROUP W – ISO/ASTM 51650: Practice for Use of a Cellulose Triacetate Dosimetry System**

**Chair:** Mike Pageau **Co-Chair:** Takuji Kojima, Kishor Mehta

**Update:** A new team has volunteered to lead this task group. Plans are under way to revise this standard utilizing 51276 on PMMA dosimetry as a template.

**TASK GROUP X – ISO/ASTM 51939: Practice for Blood Irradiation Dosimetry**

**Chair:** Paul Mellor **Co-Chairs:** Art Heiss,

**Update:** This task group is currently in the need of Chair to begin the revision of the standard. There has been no recent progress on the standard. If no progress is made in fulfilling the TG chair, the standard will be evaluated for re-approval or withdraw. Please contact John Logar if you are interested in chairing this standard.

**TASK GROUP aa – ISO/ASTM 51400: Practice for Use of Thermoluminescence Dosimetry (TLD) Systems for Radiation Processing**

**Chair:** Rod Chu **Co-Chairs:** Dave Vehar

**Update:** There has been no recent progress on the standard.

**TASK GROUP cc – ISO/ASTM 51940: Guide for Dosimetry for Sterile Insect Release Programs****Chair:** Dave Lance **Co-Chair:** Kishor Mehta**Update:** The standard is currently under revision.**TABLE 2: SUMMARY OF STATUS OF THE 7 ASTM E10.01 DOSIMETRY STANDARDS**

STANDARD	NAME	TG	CHAIR	CO-CHAIRS	STATUS
ASTM E 1026	Practice for Using the Fricke Reference-Standard Dosimetry System	Y	Peter Sharpe		Current edition approved January 1, 2004; published February 2004. Due for 5-year ASTM Systematic Review. See update following Table 2.
ASTM E 2232	Guide for Selection and Use of Mathematical Methods for Calculating Absorbed Dose in Radiation Processing Applications	dd	Roberto Uribe	Doug Weiss, Mike Saylor, Bruce Peterson	Current edition approved September 10, 2002; published November 2002. Standard being published following revision.
ASTM E 2303	Guide for Absorbed-Dose Mapping in Radiation Processing Facilities	S	Gary Pageau	Glenn Calvert, Bruce Peterson	Current edition approved July 10, 2003; published August 2003. Standard under revision. See update following Table 2.
ASTM E 2304	Practice for Use of a LiF Photo-Fluorescent Film Dosimetry System	gg	Mark Murphy	András Kovács	Current edition approved July 20, 2003; published October 2003. Standard under revision. See update following Table 2.
ASTM E 2381	Guide for Dosimetry in Radiation Processing of Fluidized Beds and Fluid Streams	bb	Denise Cleghorn	Doug Weiss	Current edition approved June 1, 2004; published July 2004. Due for 5-year ASTM Systematic Review. See update following Table 2.
ASTM E 2628	Practice for Dosimetry in Radiation Processing	hh	Peter Sharpe	OPEN	Current edition approved August 15, 2009; published September 2009.
ASTM E2701	Guide for Performance Characterization of Dosimeters and Dosimetry Systems for Use in Radiation Processing	ff	Rod Chu	OPEN	Current edition approved July 15, 2009, published September 2009.

**Task Group Y – ASTM E 1026: Practice for Using the Fricke Reference-Standard Dosimetry System****Chair:** Peter Sharpe **Co-Chairs:****Update:** There has been no recent progress on the standard.**Task Group dd – ASTM E 2232: Guide for Selection and Use of Mathematical Methods for Calculating Absorbed Dose in Radiation Processing Applications****Chair:** Roberto Uribe **Co-Chairs:** Doug Weiss, Mike Saylor, Bruce Peterson**Update:** The negative vote from the last main committee ballot has been resolved and it was withdrawn. The standard is being prepared for publication.**Task Group S – ASTM E 2303: Guide for Absorbed-Dose Mapping in Radiation Processing Facilities****Chair:** Gary Pageau **Co-Chairs:** Glenn Calvert, Bruce Peterson**Update:** Task Group S met in St. Louis and reviewed comments received from the recent Committee ballot. All comments were discussed and proposed resolutions were developed that were incorporated into a new document revision sent out to all the commenters and the task group for an initial review. A final revision draft including comments returned from this review was prepared for the upcoming Committee ballot round.

**Task Group gg – ASTM E 2304: Practice for Use of a LiF Photo-Fluorescent Film Dosimetry System**

**Chair:** Mark Murphy **Co-Chairs:** András Kovács

**Update:** The standard is being revised.

**Task Group bb – ASTM E 2381: Guide for Dosimetry in Radiation Processing of Fluidized Beds and Fluid Streams**

**Chair:** Denise Cleghorn **Co-Chairs:** Doug Weiss

**Update:** No current activity. The standard is being reviewed to determine if an update and ballot is required.

**Addition of ASTM dosimetry standards to the group of 25 ISO/ASTM Dosimetry Standards:** The new procedures for the addition of closely related dosimetry standards for which there is no counterpoint in ISO to the ISO/ASTM pilot project were finalized at the ISO/TC85/WG3 meeting in Orlando in June 2008. The new procedures (ISO/TC 85 Document N 1009) allow ASTM to submit published ASTM E10.01 standards to ISO/TC 85 for adoption as ISO/ASTM standards. The ASTM standard will be balloted by ISO/TC 85 as a Draft International Standard (DIS).

The new standards E 2628 and E 2701 will be the first ASTM standards to be submitted to ISO/TC 85. The present 5 ASTM E10.01 dosimetry standards are being reviewed and will be submitted after the revised versions are published.

**TABLE 3: SUMMARY OF STATUS OF NEW STANDARDS BEING DEVELOPED BY ASTM E10.01**

STANDARD	NAME	TG	CHAIR	CO-CHAIRS	STATUS
E10.01 SPC	Guide for Using Statistical Process Control Principles in Radiation Processing	I	Mark Bailey	Jon Jansson Peter Sharpe Brad Lundahl	See update following Table 3.
E10.01-J	Practice for Use of a Label Dosimetry System	J	Mark Murphy	Zbigniew Zagorski, Gary Pageau	No recent progress.

**Task Group I – E10.01-I: Standard Guide for Using Statistical Process Control Principles for Routine Dosimetry in Radiation Processing**

**Chair:** Mark Bailey **Co-Chairs:** Jon Jansson, Peter Sharpe, Brad Lundahl

**Update:** We discussed SPC at the June Committee Week following an initial presentation by Mark Bailey, in two breakout sessions, with lively and enthusiastic discussions. The document will be based on the Panel on Gamma and Electron Irradiation's SPC protocol. The current draft title for the new ASTM document reflects that this guidance is for the routine dosimetry aspects of process control and not (at present) the other aspects, such as recording of irradiator parameters, control of product and so on. Note also that this will be a non-mandatory guidance document; the principles need to be established and broad agreement obtained over some time before it can be promoted to the level of a standard practice. This was also reflected in the discussions, in that it may be that there would be different approaches which could be taken, which may be equally valid. These will be explored during the development of the document, with examples most likely built in as appendices.

Four subsequent "buckets" were identified in which would be developed the main parts of the new guidance document. These were:

- Uncertainties - this is critical to all that follows
- Lower and Upper Levels for Target Dose - derived from PQ dose maps and heavily dependent on the uncertainties
- Change Control - accounting for changes in dosimetry batch and/or calibration, or equipment changes
- Sampling frequency - guidance on the setting of an appropriate sampling plan.

There will be other subject areas to be developed and these will follow as time passes. The aim is that those interested in taking part in Task Group I will be given access to an ASTM website forum for the development of this document, so that its development can move on without requiring too many face-to-face meetings or conference calls, which are also difficult with the members spread over so many time zones.

**TABLE 4: SUMMARY OF STATUS OF TASK GROUP O TERMINOLOGY**

STANDARD	NAME	TG	CHAIR	CO-CHAIRS	STATUS
E10.01-O	Terminology Pertaining to Radiation Measurements and Dosimetry	O	Kishor Mehta	Roberto Uribe, Marsh Cleland	See update following Table 4.

**TASK GROUP O – Terminology: Terminology Pertaining to Radiation Measurements and Dosimetry**

**Chair:** Kishor Mehta **Co-Chairs:** Roberto Uribe, Marsh Cleland

**Update:** The latest ‘balloted’ version of the E10.01 Glossary was distributed to all of the E10.01 Task Group chairs by John Logar last year. If you have mis-placed it or would like to receive it, please contact K. Mehta or John Logar to receive a copy. All standards being revised should update their definitions accordingly.

**TABLE 5: SUMMARY OF STATUS OF ASTM E10.01 FOOD IRRADIATION STANDARDS**

STANDARD	NAME	TG	CHAIR	CO-CHAIRS	STATUS
E 2449	Guide for Irradiation of Pre-packaged Processed Meat and Poultry Products to Control Pathogens and Other Microorganisms	ii	Chris Sommers	John Logar	Current edition approved June 1, 2005; published July 2005.
F 1355	Guide for Irradiation of Fresh Agricultural Produce as a Phytosanitary Treatment	jj	Ian Winborne	Guy Hallman	Current edition approved January 1, 2006; published February 2006.
F 1356	Guide for the Irradiation of Fresh and Frozen Red Meat and Poultry to Control Pathogens and Other Microorganisms	kk	Kim Morehouse	Chris Sommers	Current edition approved June 1, 2008; published February 2008
F1640	Guide for Packaging Materials for Food to be Irradiated	ll	Kim Morehouse	Open	Current edition approved February 1, 2009; published March 2009
F1736	Guide for Irradiation of Finfish and Aquatic Invertebrates Used as Food to Control Pathogens and Spoilage Microorganisms	mm	Kim Morehouse	John Logar	Current edition approved February 1, 2009; published March 2009.
F1885	Guide for Irradiation of Dried Spices, Herbs, and Vegetable Seasonings to Control Pathogens and Other Microorganisms	nn	Kim Morehouse	John Logar	Current edition approved January 1, 2004; published February 2004. See update following Table 5.

**TASK GROUP nn – ASTM F1885: Guide for Irradiation of Dried Spices, Herbs, and Vegetable Seasonings to Control Pathogens and Other Microorganisms**

**Chair:** Kim Morehouse **Co-Chairs:** John Logar

**Update:** There has been no recent progress on the standard.

**9. ISO UPDATES – Rod Chu****ISO/TC 85 Nuclear Energy**

Rod Chu

In addition to ISO/TC 85 WG 3, Dosimetry for Radiation Processing, ISO/TC 85 has other Working Groups and Subcommittees that are producing standards on radiation protection, nuclear fuel technology, and reactor technology that may be of interest to E10.01 members. The latest ISO/TC 85 Meetings were held in Jeju, South Korea, May 31-June 4, 2010. Rod attended the meetings as the head of the Canadian delegation.

Although there was no WG3 meeting in Jeju, Rod took the opportunity to meet with the new ISO/TC 85 Secretariat, Eric Balcaen, to ensure that updates to the ISO/ASTM set of dosimetry standards will be balloted by ISO with a minimum of delay. Rod also alerted the ISO/TC 85 Secretariat of the

E10.01 plans to propose the addition of the new ASTM E2628 and ASTM E2701 standards to the set of ISO/ASTM radiation processing dosimetry standards. Rod also provided a brief report of the WG3 activities for the ISO/TC85 Plenary Session.

In Jeju, WG 1, Terminology, Definitions, Units and Symbols, met to review the results from the DIS ballot on the first part of a new vocabulary. The first part was originally to be on radiation protection, but it was decided that another part on general terms was required. WG1 will now be working on 2 parts: Nuclear Energy – Vocabulary – Part 1: General Terms, and Part 2: Radiation Protection. To ensure that the E10.01 Glossary and E170 are harmonized with the vocabulary being produced by ISO/TC 85 WG1, Rod Chu attended the WG1 meeting in Korea.

**ISO/TC 34 WG 10 Food Irradiation**

Rod Chu

ISO/DIS 14470 incorporating the secretariat observations from the balloting of ISO/CD 22008, Food irradiation – Requirements for the development, validation, and routine control of the ionizing radiation process used for the treatment of food products is being balloted as a Draft International Standard (DIS). The balloting ends on August 5 and a meeting is planned for reviewing the ballot comments following the close of the DIS balloting. Rod is planning to attend this meeting. If anyone is interested in reviewing the standard, please contact Rod.

**10. PRIOR MEETINGS OF SUBCOMMITTEE E10.01**

For those members of Subcommittee E10.01 with a taste for nostalgia, here is the list of previous meeting sites.

Jan-84 San Diego, CA	May-93 Jackson, Wyoming	Jan-02 Dallas, Texas
Jun-84 Williamsburg, VA	Jan-94 San Francisco, CA	Jun-02 Tucson, Arizona
Jan-85 Reno, Nevada	Jun-94 Sun Valley, Idaho	Jan-03 Albuquerque, NM
Jun-85 Toronto, Ontario	Sep-94 Istanbul	Jun-03 Denver, Colorado
Jan-86 New Orleans, LA	Jan-95 Phoenix, Arizona	Sep-03 Chicago, Illinois
Jun-86 Seattle, Washington	Jun-95 Denver, Colorado	Jan-04 Tampa, Florida
Jan-87 Tampa, Florida	Oct-95 Ste-Adèle, Québec	Jun-04 Boston, Massachusetts
May-87 Jackson, Wyoming	Jan-96 Atlanta, Georgia	Sep-04 Ste-Adele, Quebec
Jan-88 Albuquerque, NM	Jun-96 Hyannis, MA	Jan-05 Atlanta, GA
Jun-88 Andover, MA	Jan-97 New Orleans, LA	Jun-05 Jackson Hole, Wyoming
Jan-89 Orlando, Florida	Jun-97 W. Conshohocken, PA	Feb-06 Phoenix, Arizona
Apr-89 Noordwijkerhout	May-97 Anaheim, California	Mar-06 Kuala Lumpur, Malaysia
Jun-89 Gaithersburg, MD	Jan-98 San Diego, California	Jun-06 Ottawa, Canada
Oct-89 Ste-Adèle, Québec	Jun-98 Seattle, Washington	Jan-07 Anaheim, California
Jan-90 Las Vegas, Nevada	Nov-98 Vienna	Jun-07 Norfolk, VA
Jun-90 Pinawa, Manitoba	Jan-99 San Antonio, Texas	Jan-08 Tampa, Florida
Nov-90 Vienna, Austria	Mar-99 Melbourne	Jun-08 Denver, CO
Jan-91 San Diego, CA	Jun-99 Vancouver	Jan-09 Atlanta, GA
Jun-91 Cape Cod, MA	Jan-00 New Orleans, LA	Jun-09 Vancouver, BC Canada
Oct-91 College Park, MD	Jun-00 Williamsburg, VA	Oct-09 Ettlingen, Germany
Jan-92 Gainesville, FL	Oct-00 San Diego, CA	Jan-10 San Antonio, TX
Jun-92 Denver, Colorado	Jan-01 Reno, Nevada	Jun-10 St. Louis, MO
Sep-92 Beijing	Mar-01 Avignon, France	
Jan-93 San Antonio, Texas	Jun-01 Norfolk, Virginia	

**11. FUTURE MEETINGS**

**Dates:** Sunday January 30, 2011 - Wednesday February 2, 2011

**Location:** Marriott Waterfront Hotel, Baltimore, MD

**Event Name:** June 2011 Committee Week

**Dates:** Friday June 17<sup>th</sup> – Saturday June 18<sup>th</sup>, 2011  
**Location:** Hilton Montreal Boneventure, Montreal, CANADA  
**Event Name:** Following IMRP 2011

**Dates:** Sunday January 29<sup>th</sup> – Wednesday February 1<sup>st</sup>, 2012  
**Location:** Hyatt Regency Atlanta, Atlanta, GA  
**Event Name:** January 2012 Committee Week

**Dates:** Sunday June 24<sup>th</sup> – Wednesday June 27<sup>th</sup>, 2012  
**Location:** Sheraton San Diego Hotel & Marina, San Diego, CA  
**Event Name:** 7<sup>th</sup> Workshop on Dosimetry for Radiation Processing - June 2012 Committee Week

## INDUSTRY UPDATES

### 1. ACTIONS BY AAMI AND ISO/TC 198/WG2 RADIATION STERILIZATION WORKING GROUPS

*Glenn Calvert, AAMI Liaison with ASTM*

Summary of May 2010 AAMI meeting

- TIR 40 (Modified Method 2 – radiation dose setting for low bioburden product. Document has been published
- ISO/DIS 11137-2
  - London meeting (Feb. 2010) - ISO/TC 198/WG 2 considered ballot results on ISO/DIS 11137-2, Sterilization of health care products - Radiation - Part 2: Establishing the sterilization dose.
  - All comments were considered and responses were agreed to.
  - Since the London meeting, additional (technical) comments from US representatives have been identified.
  - Next step - document to be revised and circulated for a second DIS ballot. Ballot is expected to begin by early summer 2010.
- New ISO Technical Specification to expand the doses that can be selected for VDmax Dose Substantiation defined in ISO/AAMI/ANSI 11137-2
  - ISO/AWI TS 13004 - rough draft prepared based on AAMI TIR33.
  - Document will be reviewed/refined and then submitted to ISO/TC 198/WG 2 for consideration at the ISO Working Group's meeting in China in September 2010.
- US delegates to ISO meeting in China (September 2010)
  - L. Foster, John Kowalski, Joyce Hansen, S. Yeadon
- Systematic reviews of ISO 11137-1 and 11137-3
  - Parts 1 and 3 to be issued for systematic review which must be completed prior to ISO meeting in China.
- Status of revision of AAMI TIR29:2002, Guide for process control in radiation sterilization
  - TIR29 will be revised/updated
  - Glenn Calvert (BD) and Ike Harper (J&J) to serve as Task Group co-chairs.
  - Expected changes will include elimination of duplication relative to ISO 11137-3 and incorporation of information re: Process Equivalency in Cobalt 60 Radiation Sterilization Facilities

If you have any questions or comments on AAMI activities please contact Glenn Calvert at [glenn\\_calvert@bd.com](mailto:glenn_calvert@bd.com).

### 2. RADIATION PROCESS SIMULATION AND MODELING USER GROUP (RPSMUG)

*Josef Mittendorfer, Vice-President, RPSMUG*

The Radiation Process Simulation and Modeling User Group (RPSMUG) has planned activities for the latter part of 2010 and through 2011 that include:

[1] A PK-Trainer / Modeling Class (East Coast, USA)

- [2] Conclusion of the Gamma Benchmarking Exercise
- [3] Continuation and Analysis of the Electron Beam Benchmarking Exercise
- [4] Review and Discussion of Modifications to Selected Dose Setting Methods

A meeting of the Board of Director members will occur in August, which will include planning for the next RPSMUG meeting.

If you have any questions regarding RPSMUG, please contact Mike Saylor at 703-207-0159. We invite everyone to visit the RPSMUG website ([www.rpsmug.org](http://www.rpsmug.org)), and to consider joining our group.

**3. THE COUNCIL ON IONIZING RADIATION MEASUREMENTS AND STANDARDS (CIRMS)**

*Roberto Uribe, Second Vice-President*

The 19th annual meeting of the Council on Ionizing Radiation Measurements and Standards will take place this year on October 18 to 20, at the NIST Campus in Gaithersburg MD. The main topic of the meeting is on "Ionizing Radiation Sources: Uses, Availability and Options". The Plenary session will include speakers and talks on the following subjects:

- Dolan Falconer, ScanTech Sciences, "Airport Screening"
- Manny Subramanian, Best Medical, "Cs-137 and Co-60 irradiators for blood irradiation"
- Yves Jongen, IBA, "Accelerators for isotope production (Mo-99)"
- John Jankovich, Nuclear Regulatory Commission, on "Overview of the U.S. Nuclear Regulatory Commission's Initiatives on the Use of Cesium-137 Chloride Sources"
- Alan Hunt, Idaho State University "Cargo Screening"
- Fiona Malcolm, "Low-energy EB for surface decontamination"
- Philippe Liger, Getinge-La Calhène, on "Low-energy EB for Surface Decontamination and Surface Treatment"
- Bruce Thomadsen, U. Wisconsin, "Risks and errors in therapy and diagnostic overexposures"

This year, instead of having break-out sessions for the individual subcommittees we shall have working groups discussions on different subjects of interest to each subcommittee. The Industrial Applications and Materials Effects Subcommittee will have discussions on the following topics, introduced by one or more short talks:

- Low energy electron accelerators
- Food irradiation
- Co-60 irradiators re-sourcing
- X-ray irradiation

For registration please log in to [www.cirms.org](http://www.cirms.org)

**4. INTERNATIONAL IRRADIATION ASSOCIATION (iiA)**

*Ruth Brinston, iiA Association Manager*

This is an update on the CIRE (China Isotopes and Radiation Commission) and iiA Forum in Shanghai, 10-13 June 2010. There were 240 delegates in total, 32 of which came from 12 foreign countries. A total of 12 iiA Members were represented at the conference. The iiA Forum on Saturday afternoon was attended by approximately 160 persons. It was definitely the most dynamic session and the comments and feedback from various participants were extremely positive. The final program was as follows:

Introduction	Yves Henon, iiA
The role and actions of iiA	George West, iiA
Transportation of Cobalt-60	H.H. Ting , Revis
Lifecycle Management of cobalt-60	Richard Wiens ,MDS Nordion

Internationalization of food irradiation standards	Yves Henon , iiA
Is X-Ray technology commercially ready ?	Ming Hung , IBA
Advanced applications of electron beams	Evan Xu, Sterigenics
Questions and answers	George West
Conclusion	Yves Henon

Yves Henon introduced the session and the speakers and presented the conclusions at the end, while George presented the iiA and took charge of a lively ‘Questions and Answers’ session (the only one in the 2 days).

Many of the questions and challenges with which the radiation processing industry is confronted are global, not local. They will be better addressed if players are united rather than isolated, each in their own country. This is why the iiA exists, to protect and advance the interests of all and everyone in the radiation processing industry. The more members we have, the more influence our association will have.

To receive a copy of the iiA Newsletter or for more information please contact Ruth Brinston, iiA Manager at [rbrinston@iiaglobal.org](mailto:rbrinston@iiaglobal.org) or visit their growing website at <http://www.iiaglobal.org>.

### **IMRP 2011**

Organizing Committee Chair: Ruth Brinston

When: 13-16 June 2011

Where: Hilton Montréal Bonaventure, Montreal, Quebec, Canada

Theme: Where science and business connect

Industry leaders and scientific experts from around the world will gather at IMRP Montreal 2011—the 16<sup>th</sup> global forum of the international radiation processing community—to discuss, debate and discover the latest in industrial electron beam, x-ray and gamma ray technology. Participants will be exposed to a combination of invited and submitted research papers covering advanced materials, sterilization of healthcare products, food irradiation and other industry topics.

The Programme Committee is responsible for assembling a high-quality, dynamic program that appeal to industry experts from around the world. The Committee is soliciting papers from a wide array of delegates including researchers, government representatives, academics and business leaders. This is your opportunity to submit online abstracts on relevant topics and make your mark at IMRP 2011. Call for papers and registration opens July 2010. The abstract submission deadline is 15 November 2010. <http://www.imrp2011.com>

## **5. THE PANEL ON GAMMA and ELECTRON BEAM IRRADIATION**

*Cathie Deeley, Chairman*

- The Panel website is undergoing a complete redesign to better serve its members and the global community with content managed information and industry links. Launch targeted for September 2010
- The Dosimetry Group continues with work on a guidance document for Irradiation at Cryogenic Temperatures in support of developments in sterilization of drug device combination products
- A Dosimetry Training Workshop is planned for October 12-14, 2010 in Strasbourg, France. This will provide an opportunity for delegates to gain hands-on experience in all elements of operational Dosimetry (additional information below in Courses & Workshops).
- The Dosimetry Group is managing a dosimetry "proficiency test". Intercomparison is made of the evaluation of delivered dose between subscribing organisations. The results are treated as confidential and made anonymous before distribution to subscribing organisations. This popular exercise is offered on an approximately biennial basis.

- The Microbiology Group has published work on - Explanatory Notes and Experience in Implementation of ISO11137-1, available to the public from the publications area of the Panel website [www.irradiationpanel.org](http://www.irradiationpanel.org) . Work continues on a paper detailing the statistical distribution of bioburden on medical devices. This document will prove useful in setting specifications for routine bioburden determinations. In addition there will be work initiated on:
  - how to proceed with dose audits when bioburden levels are significantly lower than the original dose determination
  - the best way to perform dose establishment with large products. The current standard is based on product unit which can be a disadvantage to manufacturers of large products.
  - Developing a method of applying the dose establishment methods to products packed as kits.
- The Food Group continues to consult and comment on the transition of ISO/DIS14470 to FDIS
- Diary Dates
  - 9 September 2010 - Microbiology WG Meeting – Novotel at Birmingham International Airport, UK
  - 14 - 15 September 2010 – Dosimetry WG Meeting followed by General Panel Meeting – Hosted by BBF Sterilisationsservices GmbH, Stuttgart, Germany
  - 12-14 October 2010 – Dosimetry Training Workshop, Strasbourg, France

For additional information, please visit [www.irradiationpanel.org](http://www.irradiationpanel.org) or contact Cathie Deeley at [cathie.deeley@reviss.co.uk](mailto:cathie.deeley@reviss.co.uk) for more information regarding The Panel activities.

## 6. COURSES AND WORKSHOPS

### **Canadian Irradiation Centre (CIC):**

CIC is a training centre operated as a joint venture by MDS Nordion and the Université du Québec, Institut Armand-Frappier (IAF). The CIC's objectives are to develop, demonstrate and promote radiation processing and its diverse applications by: conducting applied research; training technical, professional and scientific personnel; educating industry and government; demonstrating operational and scientific procedures; developing processing procedures and standards; performing product and market acceptance trials. Courses include: Radiation Safety in Industrial Irradiator Operations, Industrial Irradiator Operator Course, Radiation Safety Officer (Industrial Irradiator), Advanced Industrial Irradiation Dosimetry, Irradiation Facility Management Course, Irradiator Technology for Inspectors, Radiation Safety Officer (Research Irradiator), Radiation Safety Review for Operators, Basic Industrial Irradiation Dosimetry and Food Irradiation Seminars. To obtain the current course calendar and more information on the courses at CIC, visit <http://www.mdsnordion.com/cic/training.asp>

### **GEX Corporation:**

2010 Workshop Course Schedule: September 14-16 (Tuesday - Thursday)

The three-day GEX Dosimetry Workshops combine lectures and hands-on training to provide complete training in all aspects of dosimetry. The Workshops reflect the latest industry practices, including the newly revised ISO 11137 Radiation Sterilization standard and other newly published or revised ISO/ASTM dosimetry standards. Participants acquire the necessary knowledge and tools to successfully establish, manage, and optimize an industrial radiation dosimetry program. Participants can achieve a superior working knowledge of current industry methods and practices and learn how to apply and use ISO/ASTM dosimetry guides and practices. Participants are given a compendium notebook containing related technical articles and application protocol documents. They also receive a formal certificate for successful completion of the Workshop. The courses are intended for radiation equipment providers, application specialists, technicians, quality control, management and regulatory personnel. Smaller groups are used to cover application specific dosimetry situations.

The workshops address all aspects of an industrial dose measurement program with hands-on training exercises and covers topics on how to:

- Define dosimetry lab requirements
- Specify and select equipment and dosimeters

- Install and maintain dose measurement equipment
- Develop and implement required protocols
- Calibrate routine dosimeter batches
- Maintain batch calibrations
- Measure dosimeters and determine dose
- Dose map the irradiator facility
- Dose map products
- Prepare reports and analyze the dose measurement results
- Use, manage and archive dose measurement data

For more information please contact GEX at +1 (303) 400-9640 or [http://www.gexcorp.com/GEX\\_educ.html](http://www.gexcorp.com/GEX_educ.html). In addition you can contact Mike Pageau via e-mail at [mpageau@gexcorp.com](mailto:mpageau@gexcorp.com).

### **KENT STATE UNIVERSITY**

A Design of Experiments course under the Master of Technology (MT) degree in the College of Technology has been offered during the last two semesters as a Special Topics class. Given the interest of students in the graduate program for this subject, the course will be proposed as a regular course within the MT. The course covers material related to some standards developed by subcommittee E10.01, including, basic statistical models, introduction to ANOVA, dealing with nuisance factors, design of experiments including factorial designs, and fractional factorial designs. Some projects related to Radiation Processing have been suggested to the students as part of the requirements for this course. People interested in more information about these courses please contact Dr. Roberto Uribe at [ruribe@kent.edu](mailto:ruribe@kent.edu).

### **THE PANEL ON GAMMA and ELECTRON BEAM IRRADIATION**

A Dosimetry Training Workshop is planned for October 12-14, 2010 in Strasbourg, France. This will provide an opportunity for delegates to gain hands-on experience in all elements of operational Dosimetry.

#### **Practical Dosimetry for Radiation Processing**

12-14 October 2010 - Aerial CRT, Rue Laurent Fries, Parc d'innovation, F67412, Strasbourg Illkirch, France

This three day course will provide training in both the theory and practical implementation of dosimetry for radiation processing. Particular emphasis will be placed on medical device sterilization and the requirements of standard EN/ISO 11137, but the course will also be applicable to dosimetry for other radiation processing applications. You can register for the course via the Course Registration Form at [http://www.irradiationpanel.org/docs/publications/Panel\\_Course\\_2010\\_1.pdf](http://www.irradiationpanel.org/docs/publications/Panel_Course_2010_1.pdf). For additional information, please contact Dr. Peter Sharpe at [phgs@npl.co.uk](mailto:phgs@npl.co.uk) or Dr. Florent Kuntz at [florent.kuntz@aerial-crt.com](mailto:florent.kuntz@aerial-crt.com).

### **RISO COURSES**

#### **Validation and Process Control for Electron Beam Sterilization**

Risø High Dose Reference Laboratory Risø - DTU, Technical University of Denmark DK 4000 Roskilde, Denmark

The Risø course on "Validation and process control for electron beam sterilization" provides the background for understanding the requirements of the international radiation sterilization standard EN ISO 11137 with focus on the dosimetric aspects of the electron beam sterilization as required in IQ/OQ (Installation / Operational Qualification), PQ (Performance Qualification) and Routine monitoring and Process Control. This course is focused on high energy (1-10 MeV) electron beam radiation sterilization.

The course will be **September 6-10, 2010**

#### **Validation and process control for electron beam sterilization.**

- Sterilization of medical devices by 1-10 MeV electron irradiation.
- Dosimeter calibration, IQ-OQ-PQ
- Methods for sterilization dose setting and substantiation
- Effects of radiation on polymers

We have recently designed courses specifically for users of low-energy electron sterilization. 100-300 keV electrons are increasingly used for sterilization, and we offer a course that addresses the special problems of dosimetry in this energy range. A course will be scheduled in 2010 - or as dictated by need. Please see <http://hdrl.risoe.dk> for more information and registration.

## 7. UPCOMING EVENTS in the RADIATION PROCESSING INDUSTRY

*From the iiA newsletter*

- RISO Validation and Process Control for Electron Beam Sterilization (high energy), Roskilde, DENMARK 6-10 September 2010
- SPE European Conference on Medical Polymers, Queen's University, Belfast, N. IRELAND 7-9 September 2010
- GEX Hands-on Dosimetry Workshop, Centennial (Denver), CO, USA 14-16 September 2010
- IAEA General Conference 54th Session, Vienna, AUSTRIA 20-24 September 2010
- ISO/TC 198 WG 2 Sterilization of Health Care Products, Guangzhou, CHINA 20-24 September 2010
- INTERPHEX Canada, Place Bonaventure, Montreal, QC, CANADA 22-23 September 2010
- MEDTEC Ireland, Radisson SAS Hotel, Galway, IRELAND 22-23 September 2010
- MD&M Midwest, Donald E. Stephens Convention Center, Rosemont, IL USA 28-30 September 2010
- Patram 2010 Packaging and Transport of Radioactive Materials, International Maritime Organization Headquarters, London, UK 3-8 October 2010
- MDS Nordion CIC, Irradiation Facility Management, Montreal, QC, CANADA 4-8 October 2010
- MD&M Minneapolis, MN, USA 12-14 October 2010
- CIRMS 19th Annual Meeting (NIST), Gaithersburg, MD, USA 18-20 October 2010
- IRaP, International Symposium on Ionizing Radiation and Polymers, College Park, MD, USA 25-29 October 2010
- International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry, IAEA, Vienna, AUSTRIA 9-12 November 2010
- BIOMEDevice, San Jose McEnery Convention Center, San Jose, CA, USA 10-11 November 2010
- AAPS 2010 Pharmaceutical Scientist, Morial Convention Center, New Orleans, Louisiana, USA 14-18 November 2010
- AAMI/ST, Sterilization Standards Committee, U.S. TAG for ISO/ TC 198, Arlington, Virginia, USA 15-17 November, 2010
- Medica & Compamend, Dusseldorf, GERMANY, 17-20 November 2010
- ASTM E10.01 Radiation Processing Committee, Baltimore Marriott Waterfront, Baltimore, MD, USA 30 January -2 February 2011
- MD&M West, Anaheim, CA, USA 9-12 February 2011
- IMRP Montreal 2011, Hilton Bonaventure, Montreal, CANADA 13-16 June 2011

## 8. BOOKS and JOURNALS OF INTEREST IN RADIATION PROCESSING

1. To obtain a printed copy of **ICRU Report 80, Dosimetry Systems for Use in Radiation Processing**, you need to purchase an individual subscription for the Journal of the ICRU for the year 2008 for \$200 (US dollars). This subscription will give the purchaser both reports published in 2008 - ICRU 80 and ICRU 79, Receiver Operating Characteristic Analysis in Medical Imaging. Back issues up to ICRU 79 can be purchased as individual reports for \$192. ICRU 80 cannot yet be purchased as a back issue, but there will only an \$8 cost saving when it is available as a back issue. The form for ordering the report can be obtained from the website <http://jicru.oxfordjournals.org>.

2. The book, “**Radiation Sterilization for Health Care Products: X-Ray, Gamma, and Electron Beam**” by Barry Fairand, is available from CRC Press at [www.crcpress.com](http://www.crcpress.com). This book addresses the critical elements of the technology including chapters on basic principles, dosimetry, effects of radiation, irradiators, process validation, processing with irradiators and commercial aspects.
3. The IAEA has completed a publication on food irradiation dosimetry (**Dosimetry for Food Irradiation**, IAEA, Vienna, 2002, Technical Report Series no.409). It is available without cost at [http://www-pub.iaea.org/MTCD/publications/PDF/TRS409\\_scr.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/TRS409_scr.pdf)

This book is the 2nd edition of K.H. Chadwick, D.A.E. Ehlermann and W.L. McLaughlin, *Manual of Food Irradiation Dosimetry*, International Atomic Energy Agency, Vienna, 1977, Techn. Reports Series no.178, which is referenced in many ASTM-standards on food irradiation and on dosimetry. It had been out of stock for years, and the 2nd edition is a complete up-date.

The new edition had been drafted by I. de Bruyn, R. Chu, D.A.E. Ehlermann, W.L. McLaughlin, K. Mehta, P. Thomas; D.A.E. Ehlermann incorporated materials from other contributors and from IAEA staff members, and finally K. Mehta revised and edited the document for printing as IAEA Technical Report. The 1977 edition which was the first of its kind had not become obsolete in its contents; however, during those 25 years substantial material had been published in separate textbooks and in ASTM standards, and hence, detailed description of a range of dosimetry systems could be omitted. Instead the focus is on irradiator design concepts, process validation, facility operation, process control and the contribution of dosimetry and dosimetry systems.

4. The book, “**Food Irradiation Research and Technology**” is published by Blackwell Publishing and currently available. It is edited by Christopher H. Sommers (United States Department of Agriculture – Agricultural Research Service) and Xuetong Fan (United States Department of Agriculture - Agricultural Research Service). This book is now undergoing its first revision. The targeted publishing date for the first revision is 2010.

The benefits of food irradiation to the public health have been described extensively by organizations such as the Centers for Disease Control and Prevention in the U.S. and the World Health Organization. The American Medical Association and the American Dietetic Association have both endorsed the irradiation process. Yet the potential health benefits of irradiation are unknown to many consumers and food industry representatives who are wary of irradiated foods due to myth-information from "consumer-advocate" groups.

ASTM colleagues Marsh Cleland, Kishor Mehta, C. Sommers, J. Maxim, Robert Griffin and Kevin O’Hara have helped with the book. Visit <http://www.blackwellpublishing.com/book.asp?ref=0813808820&site=34> for more information.

5. The IAEA has a publication on gamma irradiators (**Gamma Irradiators for Radiation Processing**, IAEA booklet, 40 p July 2005) available free from: Head, Industrial Applications and Chemistry Section, International Atomic Energy Agency, Wagramer Strasse 5, Vienna A-1400, Austria; Website address: ‘<http://www-naweb.iaea.org/naweb/iachem/Brochgammairradd.pdf>’.

The radiation technology is one of the most important fields which the IAEA supports and promotes, and has several programmes that facilitate its use in the developing Member States. In view of this mandate, this Booklet on “Gamma Irradiators for Radiation Processing” is prepared which describes variety of gamma irradiators that can be used for radiation processing applications. It is intended to present description of general principles of design and operation of the gamma irradiators available currently for industrial use. It aims at providing information to industrial end users to familiarise them with the technology with the hope that the information contained here would assist them in selecting the most optimum irradiator for their needs. Correct selection affects not only the ease of operation but also higher efficiency and thus improved economy. It is also intended for promoting radiation processing in general to governments and general public.

The Booklet is prepared by the IAEA’s Industrial Applications and Chemistry Section, Division of Physical and Chemical Sciences with the assistance provided by consultant Mr. Kishor Mehta. The IAEA staff member

responsible for this project was Mr. A. Chmielewski. The IAEA is grateful to all persons and organizations that provided valuable information for the Booklet.

6. GEX Corporation has recently published second edition of Kishor Mehta's "**Radiation Processing Dosimetry: a practical manual**". The book retails for \$40.00 USD each, with a \$10.00 discount or \$30.00 sales price offered to all ASTM E10.01 members. Contact GEX at 303-400- 9640 or mpageau@gexcorp.com to place your order. Major credit cards will be accepted for payment. A \$5.00 shipping and handling fee will be added.
7. A new book "**Trends in Radiation Sterilization of Health Care Products**" from the IAEA was published in 2008 and can be down-loaded at [http://www.pub.iaea.org/MTCD/publications/PDF/Pub1313\\_web.pdf](http://www.pub.iaea.org/MTCD/publications/PDF/Pub1313_web.pdf)

#### **FINAL NOTE**

It is my hope that the Progress Report remains useful, and detailed. Please contact me if you have comments or concerns.



John R. Logar, Chairman E10.01

## APPENDIX A

Action Item List from St Louis. E10.01 Meeting June 7-9 2010

Item	Action Required	Responsibility	Date issued	Due Date	Completed
1	<b>Standards Action.</b> Open Work Items based on year	TG Chairs	ongoing	ongoing	
2	<b>Approval of 1261 by Dec 31, 2010 or it will be withdrawn</b>	All	ongoing	<b>Dec 31, 2010</b>	
3	Notify Joe Koury of decision to drop/keep from termination list	J Logar	June 7, 2010	June 30, 2010	
4	Update Co-chairs lists	J Logar	June 7, 2010	June 30, 2010	
5	E2303 - Main Ballot	TG Chair	June 7, 2010	Aug 9, 2010	
6	51261 - Main Ballot	TG Chair	June 7, 2010	Aug 9, 2010	
7	E2701 - ISO Questionnaire/ Ballot	R Chu	June 7, 2010		
8	E2628 - ISO Questionnaire/ Ballot	R Chu	June 7, 2010		
9	51631 - ISO Ballot	R Chu	June 7, 2010		
10	51276 - ISO Ballot	R Chu	June 7, 2010		
11	2232 Negative Withdrawn. Publication clean copy to Christine. Check if Roberto needs to resend	R Uribe/ J Logar	June 7, 2010		Complete
12	Negative vote to withdraw 51400. Open a work item to update calibration 1261 to include Reference dosimeters section 1261	J Logar/ B Lundahl	June 9, 2010	June 30, 2010	Complete
13	Update TG Matrix for changes indicated at St Louis meeting	D Cleghorn/ J Rickey	June 8, 2010	June 30, 2010	Complete
14	Follow up with J Koury and ANSI to get US votes registered	Logar/ Williams/ Cleghorn	June 7, 2010	June 30, 2010	
15	Commitment from ASTM for 7 <sup>th</sup> Workshop location. Need to send schedule to C Friend	Williams/ J Logar/Koury	Jan 26 2010 update Jun 9 2010	<b>SEPT 2010</b>	Complete
16	If interested in planning committee for 7 <sup>th</sup> workshop, email J Logar	All	ongoing	ongoing	
17	Prepare outline for 1 day workshop before IMRP	Rod Chu	Jun 7, 2010	Aug 1, 2010	
18	Members to update contact information on ASTM site	All	Jun 9, 2010	ongoing	
19	Add update to PR69 to invite TG chairs to present overview of revisions	J Logar	Jun 9, 2010	June 30, 2010	Complete
20	Add link on website for Panel Course	D Cleghorn	Jun 7, 2010	June 30, 2010	Complete
21	1 <sup>st</sup> Subcommittee ballot Deadline June 28 2010. Send to Rod before. (Subcommittee ballots can be sent at other times in addition to these dates)	All chairs	Jun 9, 2010	<b>June 18, 2010</b>	Complete
22	Concurrent/Main Committee ballot Deadline Aug 9, 2010. Send to Rod min 1 week before.	All chairs	Jun 9, 2010	Aug 1 2010	
23	2nd Subcommittee/Main ballot Deadline Nov 22 2010. Send to Rod before	All chairs	Jun 9, 2010	Nov 12, 2010	
24	ISO DIS ballot items submitted as soon as possible to Rod. (timeline is 5 months)	All chairs	ongoing	ongoing	
25	Input from all for PR69 to J Logar by June 30	Active TG chairs All	Jun 9, 2010	June 30, 2010	Complete
26	If interested in presenting 30 minutes at next meeting, contact J Logar	All	ongoing	ongoing	
27	Publications or books workshops to be included in the PR need to be updated	Kishor/ all	June 7, 2010	June 30, 2010	Complete
28	Review Negatives for Dry Storage	???/ Logar	June 9, 2010	June 30, 2010	
29	First announcement for 7 <sup>th</sup> workshop by January	Williams/ Patil	June 9, 2010	Oct 1, 2010	
30	Workshop planning meetings to begin	Williams/ Patil	June 9, 2010	Aug 1, 2010	
31	Contact Mohammad re tour during Baltimore meeting	J Logar	June 9, 2010	Nov 1, 2010	

**PRELIMINARY AGENDA (FOR REVIEW BY E10.01)**

**Baltimore Marriott Waterfront Hotel**  
**Baltimore, MD USA, January 30<sup>th</sup> – February 2<sup>nd</sup>, 2011**

<b>Sunday, January 30<sup>th</sup>, 2011</b>		
13:00 – 17:00	7 <sup>th</sup> Workshop Planning Meeting	Room: TBD
17:00 – 20:00	E10.90 Executive Meeting	Room: TBD
<b>Monday, January 31<sup>st</sup>, 2011</b>		
8:30 – 9:45	Room TBD	
	ASTM E10.01 General Meeting and Announcements	
	Introduction of Members	All
	Issue Attendance Lists	Logar
	Approve Minutes/Progress Report from Previous Meeting (PR 67)	Logar
	Review/Approve Agenda	Logar
	Workshop Update	Williams/Patil
	E10 Executive Meeting Update	
	Finances	Logar
	New Members / Termination List	Logar
	E10 & ASTM Highlights	Logar
	E10.01 Action Items	All
	Results of Committee/Sub-committee Ballot	Chu
	ISO TC85 WG3 Update	Logar
Results of ISO ballots.	Chu	
Miscellaneous		
Group Picture – Time & Place	Rickey	
Group Dinner	Cleghorn	
Task Group Breakouts	Logar	
9:45 – 10:15	Morning Break	
10:15 – 11:30	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
11:30 – 12:00	Member Presentation – TBD	
12:00 – 13:30	Lunch	
13:30 – 14:45	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
14:45 – 15:15	Afternoon Break	
15:15 – 17:00	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
17:00 – 18:00	C26 / E10 Joint Committee Meeting	Room: TBD
18:00 – 19:00	C26 / E10 Joint Committee Reception	Room: TBD
19:00 – 21:00	Group Dinner	

**PRELIMINARY AGENDA (FOR REVIEW BY E10.01)**

**Baltimore Marriott Waterfront Hotel**

**Baltimore, MD USA, January 30<sup>th</sup> – February 2<sup>nd</sup>, 2011**

Tuesday, February 1 <sup>st</sup> , 2011		
	Room TBD	
	ASTM E10.01 General Meeting and Announcements Issue Attendance Lists Task Group Updates Management Task Group Updates Administration Balloting Education & Outreach Liaison Reports / Handouts AAMI CIRMS iiA RPSMUG PANEL Group Picture	Logar TG Chairs  Cleghorn/Rickey Chu Calvert/Meissner  Martin Uribe Herer O'Hara Sharpe Rickey
9:45 – 10:15	Morning Break	
10:15 – 11:30	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
11:30 – 12:00	Member Presentation - TBD	
12:00 – 13:30	Lunch	
13:30 – 14:45	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
14:45 – 15:15	Afternoon Break	
15:15 – 17:00	Room TBD	Room TBD
	Task Group Break Out	Task Group Break Out
17:00 – 18:00	E10 Main Committee Meeting	Room TBD

**PRELIMINARY AGENDA (FOR REVIEW BY E10.01)**

**Baltimore Marriott Waterfront Hotel**

**Baltimore, MD USA, January 30<sup>th</sup> – February 2<sup>nd</sup>, 2011**

<b>Wednesday, February 2<sup>nd</sup>, 2011</b>	
8:30 – 9:45	Room TBD
	<div style="display: flex; justify-content: space-between;"> <div style="width: 70%;">                     ASTM E10.01 General Meeting and Announcements                      Task Group Updates                      Dates &amp; Deadlines                      Main Committee &amp; Subcommittee                      Action Items                      Input for Progress Report 70                      Upcoming Meetings                      Montreal, CANADA, June 2011 (following IMRP)                      Atlanta, GA, January 2012                      San Diego, CA, June 2012 – 7<sup>th</sup> Workshop on Dosimetry                 </div> <div style="width: 25%; text-align: right;">                     TG Chairs                       Chu                      Logar/Cleghorn                      Logar                       All                      Logar                 </div> </div>
9:45 – 10:15	Morning Break
10:15 – 11:30	Room TBD
	Task Group Break Out
11:30 – 12:00	Member Presentation - TBD
11:30 – 13:30	Lunch
13:30 – 14:45	Room TBD
	Task Group Break Out
14:45 – 15:00	Afternoon Break
15:00 - ?????	GROUP OUTING – TBD