



# **Subcommittee 45B**

**RADIATION PROTECTION INSTRUMENTATION**

# **Current Standardisation Work of IEC/SC 45B on Radiation Protection Instrumentation**

ISO/TC85/SC2 meeting in Niagara Falls (Canada), April 2011

**Peter Chiaro (US) – Chairman**

**Dr. Miroslav Voytchev – Secretary**

**IEC/SC 45B – Radiation Protection  
Instrumentation**



# Contents

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## New standards published in 2010 - 1

IEC #	PL	WG	Title	Date of publicat.
62438	A. Tyler and M. Cox	5	Mobile instrumentation for measurement of gamma and neutron radiation in the environment	03/2010
61526 Ed. 3	P. Ambrosi	8	Measurement of personal dose equivalents Hp(10) and Hp(0,07) for X, gamma, neutron and beta radiations – Direct reading personal dose equivalent meters	07/2010
60532 Ed. 3	R. Pearce	9	Installed dose rate meters, warning assemblies and monitors - X and gamma radiation of energy between 50 keV and 7 MeV	08/2010
62463	C. Dray	9	X-ray Systems for the screening of persons for security and the carrying of illicit items	07/2010

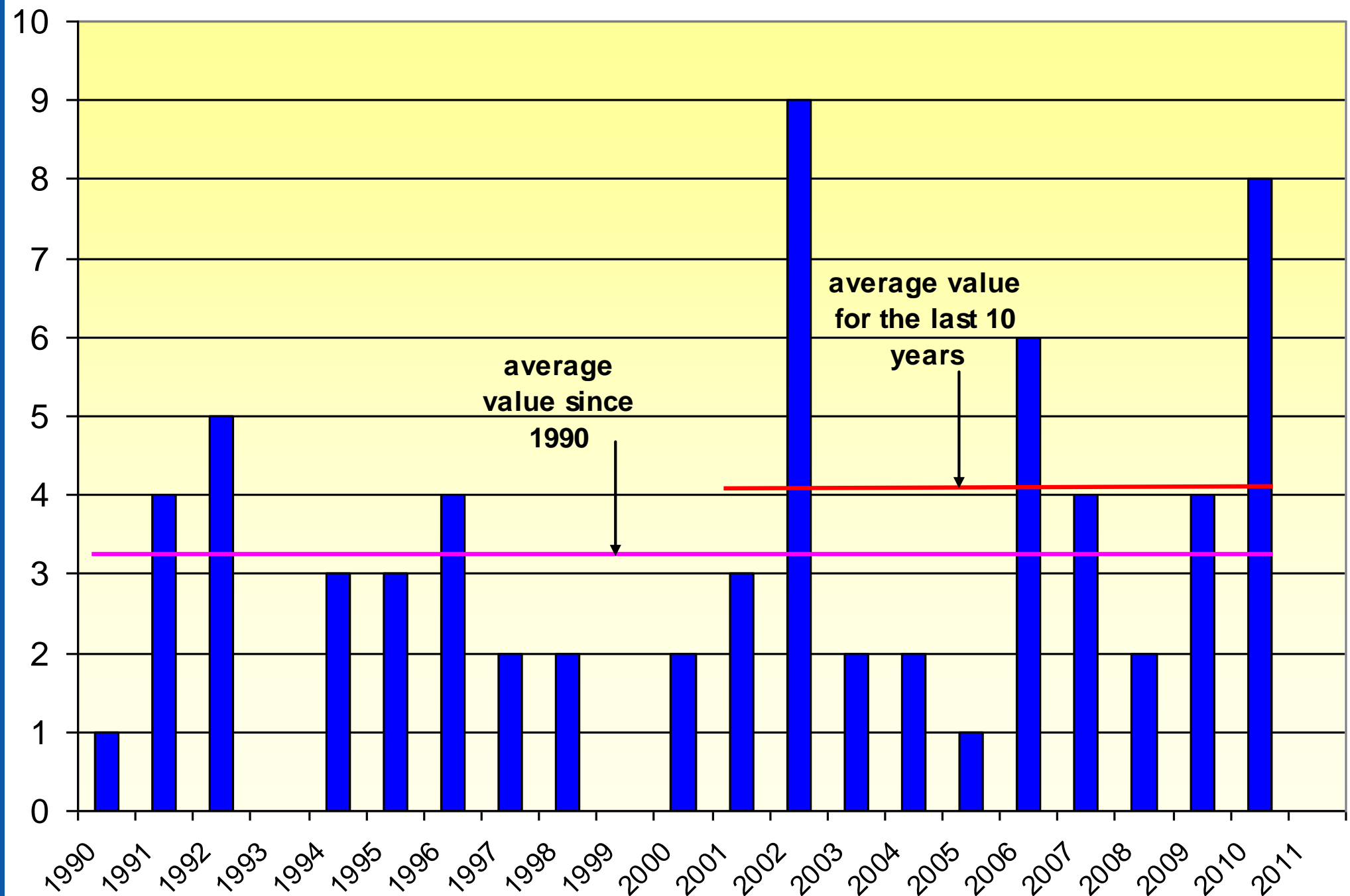


## New standards published in 2010 - 2

IEC #	PL	WG	Title	Date of public.
62484	P. Chiaro	15	Spectroscopy-based portal monitors used for the detection and identification of illicit trafficking of radioactive material	05/2010
62533	M. Voytchev	15	Highly sensitive hand-held instruments for photon detection of radioactive material	06/2010
62534	P. Chiaro	15	Highly sensitive hand-held instruments for neutron detection of radioactive material	06/2010
62523	K. Kang	15	Cargo/Vehicle radiographic inspection systems	06/2010
	M. Voytchev		SC 45B Template for new standards (internal document)	12/2010



## SC45B standard production per year





## New projects and revisions

- ▶ IEC 61005 Ed.3 Neutron ambient dose equivalent (rate) meters (**revision, WG B8**)
- ▶ IEC 62XXX Electronic counting dosimeters for pulsed fields of ionizing radiation (**Technical Specification, WG B8**)
- ▶ IEC 62387 Radiation protection instrumentation – Passive integrating dosimetry systems for personal and environmental monitoring (**revision, WG B14**)
- ▶ IEC 62709 Measuring the Imaging Performance of X-ray and Gamma-ray Systems for Security Screening of Humans (**WG B15**)
- ▶ Setting up a Joint Work Group (JWG) with SC 45A “Instrumentation for Nuclear Safeguards”





# Meetings

Last SC 45B meeting was held in **Seattle (US)**, October 2010

- ▶ within the frame of the **74<sup>th</sup> general IEC meeting**
- ▶ 2 800 delegates from more than 80 countries
- ▶ 100 TC's and SC's with over 400 groups in total





# Meetings

- **First TC 45 plenary meeting held fifty years ago** from 5 to 10 November 1960, in New Delhi, India (TC 45 was created in July 1958)
- On the occasion of this fiftieth anniversary IEC Central Office extends its best wishes to TC 45

## TC 45

Date of creation : 10th July 1958, STOCKHOLM, Committee of Action meeting, RM 487/CA  
Proposal by the WG that a new Technical Committee should be formed to deal with : electrical measuring instruments used in the application of radio-isotopes and personal protection. (Item 8, Nuclear energy, letter e).  
Decision to set up TC 45, title to be decided later.

SECRETARIAT : GERMANY

CHAIRMAN : W.A. HAMILTON (USA) appointed Chairman of TC 45 by CA, MADRID, RM 536/CA  
4th July 1959

English title : "Electrical measuring instruments used in connection with ionizing radiation".  
RM 536/CA

French title : "Appareils de mesure utilisés en relation avec les radiations ionisantes".

Scope : "To prepare recommendations referring to the functioning of electrical instruments & associated apparatus for the measurement of ionizing radiation and to the use of electrical measuring instruments generally in strong radiation fields",

First meeting : NEW DELHI, 5th to 10th November 1960  
Chairman : W.H. HAMILTON (USA)  
Secretary: J. TROEGER (Germany)  
24 participants

RM 639/TC 45

NEW SCOPE : Work : Discussion of the scope of TC 45 :  
"To prepare recommendations regarding :  
a) The safety requirements and functional performance of electrical instruments and associated apparatus for the measurement of ionizing radiation (as defined by the I.C.R.U.)  
b) Behaviour of all types of electrical measuring instruments in fields of ionizing radiation.  
In this work liaison should be established with TC 13 and any other relevant Committee.



## Meetings



- ▶ Next grouped interim meeting of several SC45B WGs will be held from 6 to 10 June 2011 at IAEA, Vienna



- ▶ Next regular SC 45B meeting will be held in February/March period 2012 in Karlsruhe (Germany)

**Thank you for your attention.  
Any questions?**

