

Príloha 6: CMC tabuľky - časť obsahujúca veličiny odvodené od NE rtg.

Calibration and Measurement Capabilities

Ionizing Radiation, Slovakia (Slovak Republic), SMU (Slovenský Metrologický Ústav)



Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty					Reference Standard used in calibration			
Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage factor	Level of confidence	Is the expanded uncertainty a relative one?	Reference standard	Source of traceability	NMI Internal Service Identifier	Comments
Ambient dose equivalent rate	Dosimeter	Irradiation in a calibrated field in air	5.0E-07	2.0E-04	Sv h ⁻¹	Cs-137	ISO-4037	5	%	2	not specified	Yes	Set of secondary standard ionization chambers	MKEH	EUR-RAD-SMU-1009	Approved on 21 April 2008
Ambient dose equivalent rate	Dosimeter	Irradiation in a calibrated field in air	3.0E-08	5.0E-07	Sv h ⁻¹	Cs-137	ISO-4037	8	%	2	not specified	Yes	Set of secondary standard ionization chambers	MKEH	EUR-RAD-SMU-1010	Approved on 21 April 2008
Ambient dose equivalent rate	Dosimeter	Irradiation in a calibrated field in air	1.0E-05	5.0E-04	Sv h ⁻¹	Co-60	ISO-4037	4	%	2	not specified	Yes	Set of secondary standard ionization chambers	MKEH	EUR-RAD-SMU-1011	Approved on 21 April 2008
Absorbed dose rate to water	Dosimeter	Calibration against a secondary standard in a water phantom	5.0E-03	1.4E-02	Gy s ⁻¹	Co-60	IAEA TRS 398, water phantom	2.4	%	2	not specified	Yes	Secondary standard ionization chamber	PTB	EUR-RAD-SMU-1012	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Irradiation on phantom in a calibrated field	1.0E-08	1.0E+01	Sv	Cs-137	ISO-4037, PMMA slab phantom	5	%	2	not specified	Yes	Set of secondary standard ionization chambers	MKEH	EUR-RAD-SMU-1013	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Irradiation on phantom in a calibrated field	3.0E-07	5.0E-04	Sv	Co-60	ISO-4037, PMMA slab phantom	5	%	2	not specified	Yes	Set of secondary standard ionization chambers	MKEH	EUR-RAD-SMU-1014	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	5.0E+03	mGy h ⁻¹	X-ray, 40 kV to 50 kV	IEC 61267 RQA quality	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1015	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	5.0E+03	mGy h ⁻¹	X-ray, 50 kV to 150 kV	50 to 150 kV, IEC 61267 RQA quality	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1016	Approved on 21 April 2008

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Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage factor	Level of confidence	Is the expanded uncertainty a relative one?	Reference standard	Source of traceability		
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	5.0E+03	mGy h ⁻¹	X-ray, 30 kV to 50 kV	IEC 61267 RQR quality	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1017	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	5.0E+03	mGy h ⁻¹	X-ray, 50 kV to 150 kV	50 to 150 kV, IEC 61267 RQR quality	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1018	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	1.0E+03	mGy h ⁻¹	X-ray, 10 kV to 50 kV	40 to 50 kV, ISO 4037 Wide spectra	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1019	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	1.0E+03	mGy h ⁻¹	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO 4037 Wide spectra	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1020	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-02	1.0E+02	mGy h ⁻¹	X-ray, 10 kV to 50 kV	30 to 50 kV, ISO 4037 Narrow spectra	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1021	Approved on 21 April 2008
Air kerma rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-02	1.0E+02	mGy h ⁻¹	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO 4037 Narrow spectra	3	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1022	Approved on 21 April 2008
Ambient dose equivalent rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	1.0E+03	mSv h ⁻¹	X-ray, 10 kV to 50 kV	40 to 50 kV, ISO 4037 Wide spectra	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1023	Approved on 21 April 2008
Ambient dose equivalent rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-01	1.0E+03	mSv h ⁻¹	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO 4037 Wide spectra	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1024	Approved on 21 April 2008

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Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage factor	Level of confidence	Is the expanded uncertainty a relative one?	Reference standard	Source of traceability		
Ambient dose equivalent rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-02	1.0E+02	mSv h ⁻¹	X-ray, 10 kV to 50 kV	30 to 50 kV, ISO 4037 Narrow spectra	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1025	Approved on 21 April 2008
Ambient dose equivalent rate	Dosimeter	Calibration against a secondary standard free in air	1.0E-02	1.0E+02	mSv h ⁻¹	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO 4037 Narrow spectra	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1026	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Calibration against a transfer standard on a phantom	1.0E-02	5.0E+02	mSv	X-ray, 10 kV to 50 kV	40 to 50 kV, ISO-4037, Wide spectra, PMMA phantom	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1027	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Calibration against a transfer standard on a phantom	1.0E-02	5.0E+02	mSv	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO-4037, Wide spectra, PMMA phantom	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1028	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Calibration against a transfer standard on a phantom	1.0E-03	5.0E+01	mSv	X-ray, 10 kV to 50 kV	30 to 50 kV, ISO-4037, Narrow spectra, PMMA phantom	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1029	Approved on 21 April 2008
Personal dose equivalent, penetrating	Dosimeter	Calibration against a transfer standard on a phantom	1.0E-03	5.0E+01	mSv	X-ray, 50 kV to 420 kV	50 to 300 kV, ISO-4037, Narrow spectra, PMMA phantom	5	%	2	not specified	Yes	Free air secondary standard chamber	BEV	EUR-RAD-SMU-1030	Approved on 21 April 2008