AAPM ADCL
and other Calibration Services

When a dosimetry system is purchased through CNMC, we will schedule the calibration at one of AAPM ADCL (Accredited Dosimetry Calibration Laboratory) facilities. This insures that your system will be delivered to you ready for use.

When your dosimetry system is being scheduled through CNMC for recalibration, we will thoroughly inspect the dosimeter and the ionization chamber and report on conditions requiring attention.

The following calibration services and beam quality parameters are available from the ADCL (Accredited Dosimetry Calibration Laboratory) and RCS (Radiation Calibration Service) at the University of Wisconsin, Madison. We can also provide ADCL calibration services from other ADCL's when specially requested.

Ionization Chamber Calibrations (ADCL):
(Cable-connected or cable-free ion chambers)

- Isotopic: 60 Co, 137 Cs, air kerma (TG-21) and/or absorbed dose to water (TG-51)
- Electron beam chamber in phantom (TG-39)
- Superficial, orthovoltage, and diagnostic x-ray (radiographic, CT and mammographic) beams

Molybdenum Anode X-ray Beam Quality Parameters

Beam code*	kVcp	Al (first)	Mo	Rh	Al
UW23-MO	23	0.279	0.032	-	-
UW25-MO	25	0.303	0.032	-	-
UW28-MO	28	0.335	0.032	-	-
UW30-MO	30	0.356	0.032	-	-
UW35-MO	35	0.390	0.032	-	-
UW28-MR	28	0.407	-	0.03	-
UW32-MR	32	0.441	-	0.03	-
UW25-MX	25	0.566	0.032	-	2
UW28-MX	28	0.626	0.032	-	2
UW30-MX	30	0.663	0.032	-	2
UW35-MX	35	0.732	0.032	-	2

Electrometer Calibrations (ADCL)

- Coulomb, ampere and exposure/dose
- Electrostatic/voltage calibration of string electrometers

Tungsten Anode X-ray Beam Quality Parameters

Beam code*	kVcp	1st HVL	HC (Al)
UW30-L	30	0.223 mm Al	56
UW40-L	40	0.490 mm Al	60
UW50-L	50	0.754 mm Al	61
UW80-L	80	1.83 mm Al	58
UW100-L	100	2.80 mm Al	58
UW20-M	20	0.153 mm Al	89
UW30-M	30	0.354 mm Al	63
UW40-M	40	0.734 mm Al	64
UW50-M	50	1.02 mm Al	64
UW60-M	60	1.68 mm Al	66
UW80-M**	80	2.96 mm Al	68
UW100-M	100	4.98 mm Al	72
UW120-M**	120	6.96 mm Al	78
UW150-M	150	10.2 mm Al (0.68 mmCu)	87
UW200-M	200	14.9 mm Al (1.72 mmCu)	94
UW250-M	250	18.5 mm Al (3.15 mmCu)	98
UW60-S	60	2.82 mm Al	76
UW75-S	75	1.86 mm Al	63

Inherent filtration: 3.0 mm beryllium. All beams are matched as closely as possible to available NIST beam qualities.

* Filtration codes: L = lightly, M = moderately, S = special filtration. Interpolation between these groups is not recommended.

**These beams are not offered by NIST and are interpolated from existing NIST Mseries beams.

Brachytherapy Calibrations (ADCL)

▸ Brachytherapy Calibrations (ADCL) ▸ Well-type (re-entrant) chambers ▸ High Dose Rate: ^{192}Ir; ^{90}Sr ▸ Low Dose Rate: ^{192}Ir: seed and ribbon; ^{137}Cs: tube type, medium-full needle, short-full needle; ^{125}I: 6702, 6711
▸ Low Dose Rate brachytherapy sources

Diagnostic Calibrations (RCS)

▸ Exposure meters ▸ Noninvasive kVp meters, tungsten, moly ▸ Noninvasive kVp Meters with timers, tungsten, moly ▸ Noninvasive multifunction meters, tungsten, moly
▸ Wisconsin Test Cassettes

Survey Meters (RCS)

Two points per scale, ion chamber and G-M types
Analog calibration, computer calibration

Special Projects (RCS)

Pocket dosimeter irradiation, TLD irradiation, artifact testing

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