CONVERSION FACTORS FOR OPERATIONAL QUANTITIES REPORTED BY PACIFIC NORTHWEST NATIONAL LABORATORY (PNNL)[a]

For exposures conducted in accordance with ANSI Standard HPS N13.11 - 1993

Beam Code	Eye[b]	Deep Personal Dose Equivalent Conversion Factor ($C_{k,d,\alpha}$), ($C_{x,d,\alpha}$) and ARF						Shallow Personal Dose Equivalent Conversion Factor ($C_{k,s,\alpha}$), ($C_{x,s,\alpha}$) and ARF					
		α=0°		α=40°		α=60°		α=0°		α=40°		α=60°	
		C_k	C_x	C_k	ARF[c]	C_k	ARF[d]	C_k	C_x	C_k	ARF[d]	C_k	ARF[d]
M30	0.65	0.42	0.37	n/a	n/a	n/a	n/a	1.02	0.89	n/a	n/a	n/a	n/a
M60	1.02	1.00	0.88	n/a	n/a	n/a	n/a	1.21	1.06	n/a	n/a	n/a	n/a
M100	1.34	1.52	1.33	1.39	0.914	1.14	0.750	1.49	1.31	1.45	0.973	1.37	0.919
M150	1.51	1.78	1.56	1.65	0.927	1.40	0.787	1.64	1.44	1.60	0.976	1.50	0.915
H150	1.45	1.71	1.50	1.61	0.942	1.40	0.819	1.60	1.40	1.57	0.981	1.48	0.925
^{137}Cs	1.07	1.21	1.06	1.20	0.992	1.16	.959	1.21	1.06	1.23	1.017	1.24	1.025

[a] C_k information taken from Revised Table 2 and 3 of the NVLAP Laboratory Bulletin, Volume II, No. 1, DOSIMETRY, effective date: January 1995. Multiplying kerma by the C_k conversion factor yields the personal dose equivalent. If kerma is in Gy, the personal dose equivalent will be in Sv. If kerma is in rad, the personal dose equivalent will be in rem.

[b] Eye depth information provided based on Cx values determined and reported by Dr. C.G. Soares and P.R. Martin, A Comprehensive Set of Conversion Coefficients for Photons, reported in the Proceedings of the Harshaw User's Group Meeting, Las Vegas NV, March 13-17, 1995.

[c] To attain shallow and deep dose equivalent at non-normal angles (i.e., 40º, 60º); multiply exposure by C_x and by ARF.