APPENDIX B

DEPARTMENT OF ENERGY RADIATION PROTECTION STANDARDS AND CONCENTRATION GUIDES

Department of Energy Radiation Protection Standards and Concentration Guides*

Effective Dose Equivalent Radiation Standard for Protection of the Public

Continuous exposure of any member of the public from routine activities:

100 mrem/year (1 mSv/year) from all exposure pathways

Department of Energy Derived Concentration Guides (DCGs) for Ingestion of Drinking Water and Inhaled Air(μCi/mL)

Radionuclide	In Air	In Water	Radionuclide	In Air	In Water
H-3	1E-07	2E-03	Eu-152	5E-11	2E-05
C-14	6E-09	7E-05	Eu-154	5E-11	2E-05
Fe-55	5E-09	2E-04	Eu-155	3E-10	1E-04
Co-60	8E-11	5E-06	Th-232	7E-15	5E-08
Ni-63	2E-09	3E-04	U-233	9E-14	5E-07
Sr-90	9E-12	1E-06	U-234	9E-14	5E-07
Zr-93	4E-11	9E-05	U-235	1E-13	6E-07
Nb-93m	4E-10	3E-04	U-236	1E-13	5E-07
Tc-99	2E-09	1E-04	U-238	1E-13	6E-07
Ru-106	3E-11	6E-06	Np-239	5E-09	5E-05
Rh-106m	6E-08	2E-04	Pu-238	3E-14	4E-08
Sb-125	1E-09	5E-05	Pu-239	2E-14	3E-08
Te-125m	2E-09	4E-05	Pu-240	2E-14	3E-08
I-129	7E-11	5E-07	Pu-241	1E-12	2E-06
Cs-134	2E-10	2E-06	Am-241	2E-14	3E-08
Cs-135	3E-09	2E-05	Am-243	2E-14	3E-08
Cs-137	4E-10	3E-06	Cm-243	3E-14	5E-08
Pm-147	3E-10	1E-04	Cm-244	4E-14	6E-08
Sm-151	4E-10	4E-04	Gross Alpha (as Am-241)	2E-14	3E-08
			Gross Beta (as Ra-228)	3E-12	1E-07

*** Ref: DOE Order 5400.5 (February 8, 1990) effective date May 8, 1990. Values are unchanged from those that were in effect in CY 1989 as transmitted by memorandum from John C. Tseng, Acting Director, Office of Environmental Guidance and Compliance, U.S. Department of Energy, November 4, 1987.**