

**APPENDIX A**

**RESRAD-BUILD WORKSHEET**

<b>COMMERCIAL OCCUPANCY OF THE BUILDING SCENARIO</b>					
<b>3% Enriched Uranium</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
U-238	14,660	14,660		1,465,964	1.47E+06
Th-234	14,660		14,660	1,465,964	
Pa-234m	14,660		14,660	1,465,964	
Pa-234	14,660		14,660	1,465,964	
U-234	57,140	57,140		5,714,000	5.71E+06
U-235	2,883	2,883		288,341	2.88E+05
Th-231	2,883		2,883	288,341	
Pa-231	2,883	2,883		288,341	
Total	124,429	77,566	46,863	12,442,877	

<b>COMMERCIAL OCCUPANCY OF THE BUILDING SCENARIO</b>					
<b>90% Enriched Uranium</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
U-238	36	36		3,566	3.57E+03
Th-234	36		36	3,566	
Pa-234m	36		36	3,566	
Pa-234	36		36	3,566	
U-234	73,813	73,813		7,381,300	7.38E+06
U-235	2,303	2,303		230,297	2.30E+05
Th-231	2,303		2,303	230,297	
Pa-231	2,303	2,303		230,297	
Total	80,866	78,455	2,411	8,086,453	

<b>COMMERCIAL OCCUPANCY OF THE BUILDING SCENARIO</b>					
<b>Reactor Byproduct</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
Co-60	6,980	0	6,980	698,000	6.98E+05
Total	6,980	0	6,980	698,000	

<b>BUILDING REMODEL / DEMOLITION SCENARIO</b>					
<b>3% Enriched Uranium</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
U-238	3,797	3,797		379,704	3.80E+05
Th-234	3,797		3,797	379,704	
Pa-234m	3,797		3,797	379,704	
Pa-234	3,797		3,797	379,704	
U-234	14,800	14,800		1,480,000	1.48E+06
U-235	747	747		74,684	7.47E+04
Th-231	747		747	74,684	
Pa-231	747	747		74,684	
<b>Total</b>	<b>32,229</b>	<b>20,091</b>	<b>12,138</b>	<b>3,222,866</b>	

<b>BUILDING REMODEL / DEMOLITION SCENARIO</b>					
<b>90% Enriched Uranium</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
U-238	9	9		888	8.88E+02
Th-234	9		9	888	
Pa-234m	9		9	888	
Pa-234	9		9	888	
U-234	18,390	18,390		1,839,000	1.84E+06
U-235	574	574		57,377	5.74E+04
Th-231	574		574	57,377	
Pa-231	574	574		57,377	
<b>Total</b>	<b>20,148</b>	<b>19,547</b>	<b>601</b>	<b>2,014,684</b>	

<b>BUILDING REMODEL / DEMOLITION SCENARIO</b>					
<b>Reactor Byproduct</b>					
Isotope	dpm/100cm <sup>2</sup>			dpm/m <sup>2</sup>	
	Total	Alpha	Beta	Total	Input Parameter
Co-60	21,205	0	21,205	2,120,500	2.12E+06
<b>Total</b>	<b>21,205</b>	<b>0</b>	<b>21,205</b>	<b>2,120,500</b>	