

Q3. Lowest ~~of~~ ~~given~~ risk estimates based on BCIK-14

risk Coefficients. These were calculated for comparison

purposes only & were not used in the BCIK box

The highest ~~value~~ estimates ^{for cancer risk result} ~~result~~ from using the

linear relative risk model and are about the same

as those given in Table 2 for the relative risk model, 7.

lowest estimates result from the linear-quadratic

ESTIMATED RADIATION DOSES TO RESIDENTS OF
ENEU AND/OR BIKINI ISLANDS ASSUMING VARIOUS LIVING PATTERNS*

Residence Island	Years on/ Years off	Time on Eneu (%)	Time on Bikini (%)	Imported Food (50% of Diet)	Maximum Annual Dose (Millirem)* to Bone Marrow	30 (M)	Whole Body	
							44,000	24,000
Bikini	Permanent	0	100	No	6200	44,000		
Bikini	Permanent	0	100	Yes	3300	24,000		
Eneu	Permanent	100	0	No	780	5,400		
Eneu	Permanent	100	0	Yes	390	2,800		
Eneu	Permanent	90	10	No	830	5,900		
Eneu	Permanent	90	10	Yes	440	3,200		
Eneu	1/1	100	0	No	540	2,800		
Eneu	1/1	100	0	Yes	280	1,400		
Eneu	1/1	90	10	No	590	3,000		
Eneu	1/1	90	10	Yes	330	1,600		
Eneu	1/2	100	0	No	540	1,900		
Eneu	1/2	100	0	Yes	280	900		
Eneu	1/2	90	10	No	590	2,000		
Eneu	1/2	90	10	Yes	330	1,100		
Eneu	1/3	100	0	No	540	1,500		
Eneu	1/3	100	0	Yes	280	700		
Eneu	1/3	90	10	No	590	1,600		
Eneu	1/3	90	10	Yes	330	800		

* Doses are rounded off.

** Federal Radiation Council exposure limit is 500 millirem per year to the maximum exposed. Numerical value given is three times the average.

*** Federal Radiation Council exposure limit is an average of 5,000 millirem to a population. These values are best estimates based upon the most complete information available. Further average values based upon averaged parameters (e.g., soil concentration of radionuclides, of radionuclides, diet); any specific individual might receive radiation exposure higher than that indicated amount of various foods consumed, etc. (No claim)

182

7/6/9

Risk Estimates based on BEIR-III

Total Person rem	Relative		Cancer Risk		Absolute	Number of Births	30-yr Whole body dose (rem)	Birth D (5-75/1)
	L-Q	L-L	L-Q	L-L				
3054	.556	1.31	.205	.483	1300	2.8	.00	
6108	1.11	2.63	.409	.965	1300	5.4	.00	
25450	4.63	10.94	1.71	4.02	1300	24.0	.01	
47846	8.71	20.57	3.21	7.56	1300	44.0	.03	
3461	.63	1.49	.23	.547	1300	3.2	.00	
6617	1.20	2.85	.44	1.05	1300	5.9	.00	
957	.174	.41	.064	.15	800	1.4	.00	
1978	.36	.851	.133	.313	800	2.8	.00	
1085	.197	.467	.073	.17	800	1.6	.00	
2105	.383	.905	.141	.33	800	3.0	.00	
446	.081	.192	.0298	.0705	350	.96	.00	
910	.166	.39	.061	.144	350	1.9	.00	
520	.095	.224	.035	.082	350	1.1	.0030	
953	.173	.41	.064	.151	350	2.0	.0055	

*Risk coefficient

182×10^{-6} man rem

eg 2.8 rem x 5 x 139

* x

... ..
these ~~values~~ for the absolute model in
Table 7. Thus, as far as ~~the~~ estimates
of cancer risk are concerned, those obtained
using ^{risk coefficients from} BEIR I ~~are~~ are in the same
general range as those obtained using ^{risk coefficients from} BEIR III.

~~...~~
Risk estimates for birth defects obtained using
the risk factor from BEIR-I give values
about 3 times those obtained using the ~~range~~
~~range~~ ~~of~~ ^{value} degree ~~of~~ of the range of
risk ~~coefficients~~ ^{factors} given in BEIR-III. If
-BEIR-III ~~values~~ risk factors for birth
defects ~~are more reasonable than~~ represent ~~an~~
~~important~~ ~~more~~ ~~important~~ more enlightened
assessment of the potential consequence of radiation
exposure than the ~~factor~~ ^{factor} taken from BEIR-1
for overall health defects, then the estimates ~~included~~
given in the Parkin book ~~are~~ ~~more~~ ~~likely~~
conservative by a factor of 3.

2600

72.36 rem

2200

400 marks / 1170.20

2600

56.20 rem

430

400 marks / 1170.20

1600

128.56)

128.56

1.29%

1500

400 marks / 1170.20

99

1.3rem per person

128.56

13	6015	11	510		
14	6033	27	2000		
15	6007	35	300		
16	6008	32	1400		
17	6071	32	350		
18	863	27	1200		
19	6086	46	2100	X	
20	6067	32	1700		
21	6073	24	1400		
22	6072	20	460		
23	6119	17	1700		
24	864	51	1900	X	
25	966	56	3200	X	highest value
26	6009	6	2200		
27	6049	8	1900		
28	6042	7	580		
29	6014	5	1500		
30	6012	7	2400		
31	6016	10	2400		
32	6013	5	1600		
33	6005	38	700		
34	6135	35	500		
35	6125	35	2100		
36	6067	56	1700	X	
37	6002	65	670	X	
38	6006	37	490		
39	6096	48	1100	X	
40	80	69	330	X	
	6017	49	2300	X	

6058	56	1500	11
6004	28	200	1
6018	34	1900	
6126	35	1400	
6003	22	1700	
6023	8	1500	
6131	14	1800	
6011	11	1400	
6133	11	2800	

Total for 39 under age 40 53,230 $\frac{53,230}{39} = 1364.87$ ~~per man~~
 Total for all males 50 70,530 $\frac{70,530}{50} = 1410.6$ ~~per man~~

over 40 $\frac{11}{50}$

Females

COLUMN WRITE

	1	2	3	4
	Identical 166 2	age	total whole body dose	
1	6111	32	250	
2	6097	19	950	
3	6115	43	1600	X
4	6109	15	760	
5	6091	13	1300	
6	6046	43	600	X
7	6061	32	1400	
8	6122	70	1600	X
9	6030	10	1600	
10	6129	13	850	
11	6027	6	1200	
12	6010	8	2000	
13	6105	5	1500	
14	6059	19	400	
15	6124	54	390	X
16	6058	18	1200	
17	6036	27	340	
18	6110	32	1400	
19	6051	19	1200	
20	6092	8	2400	highest value
21	6080	7	310	
22	6038	6	1400	
23	6103	9	1600	
24	6028	7	1800	
25	6044	6	2200	
26	6062	21	1100	
27	6034	46	1800	X
28	865	45	1300	X
29	6050	22	710	
30	6094	10	2100	
31	6112	35	420	
32	6035	20	1400	
33	6045	28	270	
34	6108	24	730	
35	6063	24	1100	
36	525	37	470	
37	934	43	2100	✓
38	6106	6	1100	
39	6025	5	1300	
40	6113	25	880	
	6060	22	790	

6032	32	1400
6123	50	1000
6098	16	720
6065	19	910
6114	32	290
6064	30	1300
6081	9	610
6048	13	660

total for 41 under
age 40 44320 $\bar{m} = 1080.98 \text{ mm}$

total for all ⁴⁹ females 54710 $\bar{m} = 1116.53 \text{ mm}$

avg 40, $\frac{8}{49}$

Total Male & female
54.7 mm
70.5
125.2