

Bikini Fact Sheet
(Resettlement Date = 1 January 1999)

Predicted dose rates on Bikini based on existing conditions				
scenario	Annual effective dose in mSv y ⁻¹	30-y integral effective dose in mSv	70-y integral effective dose in mSv	Cited literature
Local food only (IUA model diet)	15	350	560	Robison et al. (1997b)
Imported Foods Available (IA model diet)	4	91	150	

1 mSv is 100 mrem

Predicted dose rates on Bikini after cleanup [#]				
scenario	Annual effective dose in mSv y ⁻¹	30-y integral effective dose in mSv	70-y integral effective dose in mSv	Cited literature
Local food only (IUA model diet)	1.2	31	50	Robison et al. (1997b)
Imported Foods Available (IA model diet)	0.41	9.8	16	
Interindividual variability and uncertainty analysis [†]				
scenario	Expected individual effective dose in mSv y ⁻¹	Maximum expected individual effective dose in mSv y ⁻¹	Expected population-average 70-y effective dose in mSv	Expected interindividual 70-y effective dose in mSv
Local food only (IUA model diet)	1.4	8.2	52 (30 to 87) [‡]	52 (12-180) [‡]
Imported Foods Available (IA model diet)	0.46	2	16 (11 to 24) [‡]	16 (6.5-45) [‡]

1 mSv is 100 mrem

[#] The proposed cleanup of Bikini Island involves limited soil removal around the housing and village area and addition of potassium to the agricultural fields; [†] after Bogen et al., 1997 (assumptions: population size = 200 people; [‡] uncertainty limits are given by the 2.5th to 97.5th percentile range).

Predicted dose rates on Bikini after cleanup and incorporating effects of the environmental-loss rate of cesium-137				
Date	Annual effective dose in mSv y ⁻¹	30-y integral effective dose in mSv	70-y integral effective dose in mSv	Cited literature
1999 (previous estimate)	0.41	9.8	16	Calculated from Robison et al. (2003)
1999 (revised estimate incorporating environmental loss of ¹³⁷ Cs) [‡]	0.41	5.1	5.8	
2004 (predicted) [‡]	0.27			
2010 (predicted) [‡]	0.17			
2020 (predicted) [‡]	0.07			

1 mSv is 100 mrem

[‡] Assumes that 100 % of the post-1999 dose is due to ¹³⁷Cs, and that the effective environmental half-life of ¹³⁷Cs is 8.5 years.