between the two models is ±16% for uptake intervals between 0.5 year and 10 years. ICRP Publication 10A results tend to be greater than ICRP Publication 20 results for the uptake intervals encountered in this study. To be very exact, retention functions must be generated for the Marshallese people. This will, however, be a very protracted study.

Table 1 lists all of the $^{90}Sr$ annual bone burden and bone dose equivalent rate for each individual sampled, whereas, Table 2 breaks the list down in terms of three population group: adult male, adult female and children male. Using ICRP Publication 20 model, the mean adult male bone dose equivalent rate is 1.5% of the maximum permissible bone dose equivalent rate, whereas, the mean adult female value is 0.8% and the mean male children value is 2.5%. The last value was obtained only with 3 samples one of which was quite high. The succeeding table, Table 3, shows the excretion data of four Marshall Island visitors to BNL in June of 1978. The visitors from Majuro show excretion levels not too much higher than the minimum detectable level of our equipment. The last table, Table 4, shows that the internal whole body dose equivalent contributes 65% of the total whole body dose equivalent for 1978. The internal dose equivalent is mainly due to the $^{137}Cs$ body burden. The contribution of $^{90}Sr$ to whole body equivalent rate is negligible, being 1/60 of the bone dose equivalent rate. However, $^{90}Sr$ is harmful primarily as a bone seeker, thus, comparison in terms of maximum permissible bone dose equivalent rate would be more appropriate for this radionuclide.

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FOLDER Bikini - 1978

DOCUMENT DOES NOT CONTAIN ECI

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DOES NOT