Phone Conversation with Madeline Barnes
(May 2 and 3, 1978)

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409857

1. The profile samples transmitted to the Advisory Group for the April 26 and 27, 1978 meeting by Madeline Barnes are not representative of "typical" profile conditions on the islands of the atoll. These profiles were taken in areas where it was suspected that untypical conditions might exist.

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The only profile information that might be useful for use in LLL's dose model are the 0-3, 10-15, 20-25 (could be 0-3, 10-13, and 20-23) cms taken at each surface sample location spot. These were analyzed by wet chemistry, but the field sampling procedures were "sloppy" (my term) in the sense that depths of sampling were crudely measured, and some cross contamination between depth samples by simple mixing of close to the surface sometimes occurred. These data will be organized and transmitted to me by M. Barnes. Bruce Church has put a halt to the collection of these 10, 20, and 30 cm profile samples.

The Advisory Group may want to consider whether additional profile samples should be

taken

2. Main purpose of the 0, 10, 20 cm profile samples was to see whether Pu/Am ratios change with depth (apparently they do not).

3. What has been done to summarize profile data?
   a) listings of whole profiles that showed concentrations (at any depth ?) > 50 pCi/g
   b) maps (location of profile samples)
   c) narrative
   d) "watering" at each depth (thick)
      • M. Barnes doesn't feel these criteria are worth much. Need energy data!

4. Information from phone conversation with M. Barnes on 5-3-78:

   M. Barnes had nothing to do with the decision to use $\frac{1}{2}\sigma$, i.e. the 70% confidence level for determining cleanup areas. She preferred to use 1σ, but was told in no uncertain words that $\frac{1}{2}\sigma$ was to be used. M. Barnes thinks the decision to use $\frac{1}{2}\sigma$ was made at an Albuquerque meeting to which one DRI people were invited.

M. Bernice notes that on most islands the same cleanup would occur whether 1 or $\frac{1}{5}$ of is used, i.e. the units are either "cold" or "very hot". Even 2 would not change the cleanup effort very much. The exception is the island of Janet, where 1 would increase the area to be cleaned.

54-3000-101 (9-59)

DON'T SAY IT --- *Write It!*

DATE __________

TO __________ FROM __________

- ✓ H-50 plt/g ⇒ listed whole people
- ✓ map
- ✓ narrative
- ✓ contouring at each depth (Church)

** { something (oddball places)
- don't have "average place" stuff

all surface T? dem. { 0, 10, 20 } a little spill in sometimes] not written up

Hole ← ~~Barnes saw this~~

[illegible]