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BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
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Safety & Environmental Protection Division
(516) 345-4207

August 3, 1979

W. J. Stanley, Director
USDOE/PASO
P. O. Box 29939
Honolulu, HI 94690

Dear Bill:

This letter delineates our objectives and our requests for PASO assistance with respect to the R. V. Liktanŭr Voyage No. 7. This letter also supercedes that dated July 2 from Bob Miltenberger to Harry Brown.

The objectives of this field trip are as follows:

1. Personnel monitoring (whole body counting and urine bioassay) at Rongelap and Utirik as part of a regular surveillance program for these atolls. Whole body counting (WBC) at Rongelap and Utirik was last done in April 1977, and these atolls are again due for a personnel monitoring visit based on an established schedule of once every 2 to 3 years. During our stay at Rongelap, a rebuilt wind-powered electrical generator will be installed to operate our continuous air sampling equipment. An additional 10 foot tower section will be added to the wind-powered generator at Utirik in an attempt to remove it from a turbulence zone which reduces its operating efficiency. We also expect to continue our environmental sampling and diet assessment programs at both atolls.

2. Personnel monitoring at Ujelang for the purpose of establishing baseline body burdens of $^{137}Cs$, $^{90}Sr/^{90}Y$, and other radionuclides. We have established 14 categories of personnel monitoring subjects based on parameters which we feel are relevant to internal dose assessments for the returning Enewetakese. The categories are presented in the following table:

REPOSITORY DOE-FORRESTAL
COLLECTION MARKEY FILES
BOX No. 5 of 6
2.8 MARSHALLESE ISLANDS
FOLDER #5 JUNE 1, 1979 —

1013100

Persons Who Have Not Participated in the "Early Return" Program of Japtan

| Dri-Enewetak | Dri-Enjebi |
|---|---|
| Adult males (> age 15) | Adult males (> age 15) |
| Adult females (> age 15) | Adult females (> age 15) |
| Adolescent males (ages 11-15) | Adolescent males (ages 11-15) |
| Adolescent females (ages 11-15) | Adolescent females (ages 11-15) |
| Male children (ages 5-10) | Male children (ages 5-10) |
| Female children (ages 5-10) | Female children (ages 5-10) |

Persons Who Have Participated in the Japtan "Early Return" Program During the Last 18 Months

Adult Males (> age 15)
Adult Females (> age 15)

A statistical analysis based on the variances of $^{137}Cs$ body burdens among the Rongelap and Utirik population indicates that we can establish the mean $^{137}Cs$ body burden at the 90% confidence level in each group with a minimum sample size of 13. Therefore, we will attempt to count 13 subjects in each of the 14 aforementioned categories, for a total WBC load of 182 subjects.

We are requesting assistance from PASO in the following areas:

1. Notification of Utirik, Rongelap and Ujelang residents regarding our visit, and requests for necessary approvals from the Marshall Islands government and from the local leaders.

2. Advance preparation of Ujelang residents regarding the purposes of our visit and the nature of our personnel monitoring activities...To the best of our knowledge, none of the Ujelang residents have participated in our personnel monitoring program. Each subject will be asked to submit to the WBC procedure (~20 minutes including interview); and adolescents and adults will be asked to provide us with a 24 hour urine sample. We have reason to believe from the Majuro WBC experience that many people confuse the counting procedure with having an x-ray taken. This misconception should be avoided, and it should be understood that the subjects receive no radiation exposure from the whole body count.

There was some mention at the Liktanŭr users group meeting that Ted Mitchell of MLSC is expected to visit Ujelang prior to our visit. I understand that Mr. Mitchell supports our program activities in principle, and we would be happy to brief him on our objectives and procedures if he so desires. This is perhaps the path of least resistance in achieving advance notification of the Ujelang people, assuming Mr. Mitchell agrees to help us, and the timing of his visit is right.

3. Assistance in selection of Ujelang personnel monitoring subjects...Our goal, as previously mentioned, is to count 13 subjects in each category. Ideally, we would like to arrange for subjects as family groups among the dri-Enewetak and dri-Enjebi. The "perfect family" consists of parents, a male and female adolescent, and a male and female child. We expect that this will rarely be the case in fact, but it is a guideline to strive for if possible. Husband and wife pairs would also be the best choices for the subjects who have participated in the Japtan early return program.

4. Notification of the Utirik and Rongelap adult subjects who are listed on the attached tables...These are subjects who have participated in previous BNL WBC visits, and who provide a statistically significant sample of the populations for internal dose assessment purposes. The people at each atoll should be notified that we would like to count about 13 male and 13 female children between the ages of 5 and 15 along with the specified adults. We would prefer that these additional subjects be immediate family members of the adults listed on the attached tables.

5. Arrangement for an accompanying interpreter...Unfortunately, Evie Craighead will not be able to join us on this field trip because of recent school commitments. In many ways, she is a model personality for this job because of her fluency in Marshallese, her rapport with the people, and her experience with and understanding of our program. An experienced former Peace Corps volunteer (PCV) would probably make the best candidate since we would brief such a person on the details of our procedures fairly easily. Ralph Woltz, the Kili councilman currently residing in Majuro, has been suggested as a possible choice; but there are some real advantages to having a female in this position. If no former PCV's can be located, we should try to obtain a bi-lingual Marshallese assistant. I would suggest Lemeo (Tarines' wife from Rongelap who, as of May '79 was in teacher training in Majuro) or Reynold DeBrum as possible candidates.

6. Pursuit of alternate resources to the BNL Medical trailer for a temporary (or permanent) WBC facility...One of the factors controlling the turnaround time between Voyage Nos. 7 and 8 is the need to remove the WBC shadow shield from the Medical exam trailer. We had discussed at the LUPG meeting the possible use of the mess trailer (formerly used on the MV Caroline Island charter) as a substitute. The large WBC subject load at Ujelang may require that we stay there an additional day, so the use of facilities not needed by BNL Medical on their September trip would be highly desirable.

7. Salvage of the contents of the old WBC trailer...We have a large inventory of disposable clothing, towels and other supplies in the old trailer which should be transferred to its substitute. The work benches should also be salvaged if possible.

For your information, our control air sampling station at Kwajalein was damaged in the January storm. We expect to make the necessary repairs prior to departure on Voyage No. 7. Also, arrangements for MAC flights and accomodations for our personnel are being made with Jimmy Foard.

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Please call me at FTS 666-4207 or Bob Miltenberger/Ed Lessard at 666-2503 if you need further information.

Thank you in advance for your assistance.

Sincerely yours,

Edward T. Lessard

for N. A. Greenhouse

NAG/slg

Attachments

cc: A. P. Hull
E. T. Lessard
R. P. Miltenberger
H. Pratt
T. McCraw
R. Ray
B. Wacholz
W. Weyzen
H. Brown

PRIVACY ACT MATERIAL REMOVED

Table 1A

Utirik Males

| Medical ID# | Name |
|---|---|
| 2125 | [redacted] |
| 2123 | |
| 2137 | |
| 2102 | |
| 2167 | |
| 2152 | |
| 2166 | |
| 2233 | |
| 2185 | |
| 2168 | |
| 2150 | |
| 2257 | |
| 2145 | |
| 2157 | |
| 2242 | |
| 2176 | |
| 2174 | |
| 2156 | |
| 2232 | |
| 2206 | |

PRIVACY ACT MATERIAL REMOVED

Table 1B

Utirik Females

| Medical ID# | Name |
|---|---|
| 2139 | [redacted] |
| 2172 | |
| 2210 | |
| 2160 | |
| 2220 | |
| 2244 | |
| 2229 | |
| 2164 | |
| 2254 | |
| 2161 | |
| 2228 | |
| 2193 | |
| 2212 | |
| 2146 | |
| 2270 | |
| 2256 | |
| 2227 | |
| 2248 | |
| 2140 | |
| 2255 | |
| 2158 | |
| 2194 | |
| 2104 | |
| 2224 | |
| 2128 | |

PRIVACY ACT MATERIAL REMOVED

Table 2A

Rongelap Males

| Medical ID# | Name |
|---|---|
| 963 | [redacted] |
| 4 | [redacted] |
| 915 | [redacted] |
| 16 | [redacted] |
| 5 | [redacted] |
| 11 | [redacted] |
| 881 | [redacted] |
| 41 | [redacted] |
| 814 | [redacted] |
| 7 | [redacted] |
| 850 | [redacted] |
| 834 | [redacted] |
| 845 | [redacted] |
| 882 | [redacted] |
| 82 | [redacted] |
| 27 | [redacted] |
| 1524 | [redacted] |
| 73 | [redacted] |
| 827 | [redacted] |
| 10 | [redacted] |
| 1014 | [redacted] |
| 809 | [redacted] |
| 904 | [redacted] |
| 801 | [redacted] |
| 6 | [redacted] |
| 1007 | [redacted] |
| 79 | [redacted] |
| 905 | [redacted] |
| 939 | [redacted] |
| 20 | [redacted] |
| 90 | [redacted] |
| 1038 | [redacted] |
| 113 | [redacted] |
| 96 | [redacted] |
| 1028 | [redacted] |
| 132 | [redacted] |
| 1047 | [redacted] |

PRIVACY ACT MATERIAL REMOVED

Table 2B

Rongelap Females

| Medical ID# | Name |
|---|---|
| 812 | [redacted] |
| 816 | [redacted] |
| 821 | [redacted] |
| 825 | [redacted] |
| 1050 | [redacted] |
| 14 | [redacted] |
| 1541 | [redacted] |
| 1525 | [redacted] |
| 843 | [redacted] |
| 1001 | [redacted] |
| 1 | [redacted] |
| 851 | [redacted] |
| 896 | [redacted] |
| 70 | [redacted] |
| 64 | [redacted] |
| 932 | [redacted] |
| 832 | [redacted] |
| 48 | [redacted] |
| 67 | [redacted] |
| 66 | [redacted] |
| 835 | [redacted] |
| 78 | [redacted] |
| 859 | [redacted] |
| 146 | [redacted] |
| 18 | [redacted] |
| 959 | [redacted] |
| 72 | [redacted] |
| 1520 | [redacted] |
| 960 | [redacted] |
| 901 | [redacted] |
| 21 | [redacted] |
| 911 | [redacted] |
| 956 | [redacted] |