H68 COPY

July 15, 1989

To Whom It May Concern:

From July 10, 1989 through July 15, 1989, Brookhaven National Laboratory (BNL) performed whole body counting and urine sampling of Enewetak and Medrin Islanders for the United States Department of Energy (DOE). A total of 72 urine samples were collected and 220 whole body measurements were performed. Attached, for your records, are the preliminary results of the whole body measurements. Detailed analysis and evaluation of the data will be performed at BNL. The radiological impact will be reported to DOE and to the Republic of the Marshall Islands.

Reviewing the preliminary data, I would like to bring the following items to your attention:

1. The general population showed body contents less than the lower limit of detection (LLD) of the whole body counting systems, except potassium-40, a naturally occurring radioisotope in our environment.

2. The highest, James Gideon, measured cesium-137 activity was estimated to be about 0.1 uCi. All measured cesium-137 activities for the people of Enewetak were, therefore, much less than the cesium-137 maximum permissible body burden (30 uCi).

3. The potassium-40 quantity in the body is generally proportional to a persons body weight.

4. The short-life isotopes, for example manganese-54 and cobalt-57 listed in some reports are used for our instrumentation calibration. It is not possible to have these nuclides in the Marshallese bodies.

Sincerely yours,

Casper Sun, Ph.D.
Field Manger, Marshall Islands
Radiological Safety Program.

cc. Harry Brown, DOE/NV
C. Meinhold, BNL/NY

ACTION _____
INFO OER
AMA _____
AMEDH _____
AMOE _____
OER _____

Rongelap 7 89

Per phone con w CS on 9/19, this letter was left with atoll leadership after work completion. I suggested he not include individual names because of potential invasion of privacy HB

HARRY BROWN'S Files, NV

July 21, 1989

To Whom It May Concern:

From July 18, 1989 through July 21, 1989, Brookhaven National Laboratory (BNL) performed whole body counting and urine sampling of the people of Rongelap at Majatto Island for the United States Department of Energy (DOE). A total of 33 urine samples were collected from 32 persons, and 92 whole body measurements were performed. Attached, for your records, are the preliminary results of the whole body measurements. Detailed analysis and evaluation of the data will be performed at BNL. The radiological impact will be reported to DOE and to the Republic of the Marshall Islands.

Reviewing the preliminary data, I would like to bring the following items to your attention:

1. The general population showed body contents less than the lower limit of detection (LLD) of the whole body counting systems, except potassium-40, a naturally occurring radioisotope in our environment.

2. The highest cesium-137 activity, measured in Majatto, was estimated to be below 0.02 uCi. All measured cesium-137 activities for the people of Rongelap were, therefore, far less than the cesium-137 maximum permissible body burden (30 uCi).

3. The potassium-40 quantity in the body is generally proportional to a person's body weight.

Sincerely yours,

Casper Sun

Casper Sun, Ph.D.
Field Manager, Marshall Islands
Radiological Safety Program.

cc: Harry Brown, DOE/NV
C. Meinhold, BNL/NY

August 4, 1989

To Whom It May Concern:

From July 24, 1989 through July 27, 1989, Brookhaven National Laboratory (BNL) performed whole body counting and urine sampling of the people of Rongelap and Utirik at Ebeye Island for the United States Department of Energy (DOE). A total of 27 urine samples were collected from 15 persons, and 142 whole body measurements were performed. Attached, for your records, are the preliminary results of the whole body measurements. Detailed analysis and evaluation of the data will be performed at BNL. The radiological impact will be reported to DOE and to the Republic of the Marshall Islands.

Reviewing the preliminary data, I would like to bring the following items to your attention:

1. The general population showed body contents less than the lower limit of detection (LLD) of the whole body counting systems, except potassium-40, a naturally occurring radioisotope in our environment.

2. The highest cesium-137 activity, measured in Majuro, was estimated to be about 0.02 uCi. All measured cesium-137 activities for the people of Rongelap and Utirik were, therefore, far less than the cesium-137 maximum permissible body burden (30 uCi).

3. The potassium-40 quantity in the body is generally proportional to a person's body weight.

Sincerely yours,

Casper Sun

Casper Sun, Ph.D.
Field Manager, Marshall Islands
Radiological Safety Program.

cc: Harry Brown, DOE/NV
C. Meinhold, BNL/NY

August 4, 1989

To Whom It May Concern:

From July 30, 1989 through August 4, 1989, Brookhaven National Laboratory (BNL) performed whole body counting and urine sampling of the people of Rongelap and Utirik at Majuro Island for the United States Department of Energy (DOE). A total of 32 urine samples were collected from 25 persons, and 253 whole body measurements were performed. Attached, for your records, are the preliminary results of the whole body measurements. Detailed analysis and evaluation of the data will be performed at BNL. The radiological impact will be reported to DOE and to the Republic of the Marshall Islands.

Reviewing the preliminary data, I would like to bring the following items to your attention:

1. The general population showed body contents less than the lower limit of detection (LLD) of the whole body counting systems, except potassium-40, a naturally occurring radioisotope in our environment.

2. The highest cesium-137 activity, measured in Majuro, was estimated to be about 0.06 uCi. All measured cesium-137 activities for the people of Rongelap and Utirik were, therefore, far less than the cesium-137 maximum permissible body burden (30 uCi).

3. The potassium-40 quantity in the body is generally proportional to a person's body weight.

Sincerely yours,

Casper Sun

Casper Sun, Ph.D.
Field Manager, Marshall Islands
Radiological Safety Program.

cc: Harry Brown, DOE/NV
C. Meinhold, BNL/NY

August 10, 1989

To Whom It May Concern:

From August 7, 1989 through August 10, 1989, Brookhaven National Laboratory (BNL) performed whole body counting and urine sampling of the people of Utirik at Utirik Island for the United States Department of Energy (DOE). A total of 40 urine samples were collected from 36 persons, and 197 whole body measurements were performed. Attached, for your records, are the preliminary results of the whole body measurements. Detailed analysis and evaluation of the data will be performed at BNL. The radiological impact will be reported to DOE and to the Republic of the Marshall Islands.

Reviewing the preliminary data, I would like to bring the following two items to your attention:

1. The Islanders' cesium-137 uptake is much less than the maximum permissible body burden (30 uCi) for this nuclide. The highest cesium-137 activity measured was below 0.1 uCi.

2. Potassium-40 is a naturally occurring nuclide whose quantity in the body is generally proportional to a person's body weight.

Sincerely yours,

Casper Sun

Casper Sun, Ph.D.
Field Manager, Marshall Islands
Radiological Safety Program.

cc: Harry Brown, DOE/NV
C. Meinhold, BNL/NY