

REPOSITORY DOE/PASO
COLLECTION DOE/NV
BOX No. 1227, "ERDA # 2"
BIKINI SURVEY (Bio-Med)
FOLDER MARCH + APRIL - 1969
(5)
DRAFT

405587

Handed to me by
Frank Cluff on 4/3/69
WCS

Bikini -

Because of the relatively large contribution of external exposure to the total exposure which will be received by the returning natives, it is most important to remove to the extent practicable all radioactive debris to which the natives might have access. This is particularly important on those islands where the natives will reside on a full time basis.

To date, no official criteria have been provided by AEC/HQ as to what shall constitute appropriate radiological standards for the cleanup operation. Unofficially, however, the Division of Operational Safety, AEC/HA has recommended that criteria be based on AEC Manual Chapter 5170, appendix 5170. This chapter provides for the disposal of surplus property including radioactively contaminated equipment. Based on this chapter the following guidelines are recommended:

1. On all islands, every reasonable effort shall be made to reduce the the levels of contamination to the lowest practicable level. Should any anomalous "hot spots" be found, the on-site AEC Radiological Safety advisor will recommend appropriate action to the Commander.
2. For those materials where removable surface plutonium levels exceed 500 disintegrations per minute per 100 square centimeters, the material should be disposed of as radioactive debris.
3. For those materials contaminated with beta or gamma emitters to levels in excess of 0.1 millirad per hour, the materials shall be handled as radioactive debris.

The application of the guidelines should be tempered with judgement and common sense.

On Eniw and Bikini a careful ground monitoring radiological survey will

BEST COPY AVAILABLE

be conducted as each new road or planting swath is cut. Any radioactive debris found during cleanup will be disposed of by dumping in one of the three designated areas in the lagoon.

On Nam, where people will not be living continuously in the near future, general radiation levels are now in the 0.1 to 0.2 mr/hr range. In this case, no attempt to decontaminate the ground surface by removal of large quantities of top soil should be attempted since this would injure the island for future agricultural use. A careful search for loose radioactive scrap, however, shall be made. Scrap metal on islets adjacent to any ground zero and all campsites and work areas will be monitored. Radioactive materials which need to be disposed of and exceed criteria established by guide lines will be dumped in any one of the three designated areas in the lagoon. The specific location of these three designated areas shall be left to the discretion of the Atoll Commander, but must meet the following criteria:

1. The minimum distance from the nearest islet will be one mile.
2. The minimum water depth will be 35 fathoms.
3. The location will be recorded on an appropriate chart for future reference.

If a plutonium contaminated area is found, the degree of contamination will be determined by the AEC Radiological Safety Advisor and he will make appropriate recommendations to the Commander.

NVCO representatives will obtain exact locations of detonations and will also try to pinpoint any potential plutonium contamination locations. These areas can then be given particular attention.

In some cases, bunkers or other structures near a former ground zero contain concrete with activated aggregate or reinforcing steel which has radiation levels above 0.1 mr/d/hr. Depending on the level of radiation and

planned for the individual structures several recourses are available. These include cutting out of the contaminated or activated portion, complete removal of the structure, cementing over the reinforcing steel etc. The AEC Radiological Safety Advisor will make appropriate recommendation to the Atoll Commander.