



Department of Energy
Washington, D.C. 20545

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OCT 10 1978

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VADM R. R. Monroe, DEN
Director, Defense Nuclear Agency
Washington, D.C. 20305

Dear Admiral Monroe:

During the orientation visit to Enewetak Atoll by the Department of Energy Enewetak Advisory Group, a listing of issues and problem areas was presented during the Joint Task Force briefing. Prior to their departure from the Atoll, the group provided a preliminary draft of their initial views on these questions to Col. Bauchspies.

Upon their return from Enewetak Atoll, comments on the draft and suggestions representing the views of most of the members of the Advisory Group have been obtained. A revised copy of the group's comments and recommendations is enclosed. We endorse this advice and recommend it for your consideration.

The Task Group met again on October 3-4, 1978. Any results relevant to Enewetak cleanup from that meeting will be provided to you when the group's report has been received and reviewed.

Regarding a response to the DHA request for a review of the draft report, "Dose Estimate for Post-Cleanup Use of Enewetak Atoll," by E. T. Bramlitt, comments by several members of the Enewetak Advisory Group have been forwarded to us. We are awaiting comments from staff of the Lawrence Livermore Laboratory, the laboratory performing such dose estimates for DOE.

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BOX No. 1236
FOLDER ENEWETAK FOLDER # 10
GEN. CORR. FY 1979

Please accept our thanks for the courtesies extended to the Advisory Group in their visit to Envestak, which by all reports was highly successful.



Paul Hollister, Acting Director
Division of Operational and
Environmental Safety

INCL:

as

CF:

W. BAIR, NLV


WACHHOLD, DOE

R. RAY, NV

The Marshall Islands Advisory Group provide the following comments and recommendations to issues and questions raised by DCA and DOE during the Advisory Group's visit to Eniwetok in August 1978.

1. **Aomon Crypt** - The 40-80-160 pCi/g guidance was not intended to apply to special or unique situation such as the Aomon Crypt. Information about the contents of the crypt is inadequate for the Advisory Group to offer any useful guidance. It might have been better to have left the crypt undisturbed. However, since the decision has been made to remove the buried contaminated material, it is probably better for Col. Bauchspies to deal with the problem than to seek advice from other less-informed sources.
2. **Preciseness of 40-80-160** - The 40-80-160 guidance can and should be met by DCA. However, DOE should be "reasonable" in its evaluation of the cleanup relative to certification since both soil removal and measurement methods are subject to errors of at least a few percent.
3. **Surface Hot Spots - Minimum Area Levels** - The opinion of the Advisory Group is that the minimum area requiring cleanup is that caused by an IHP reading (90% of a 25 meter square area) that exceeds the 40-80-160 guidance. However, if removal of a "hot spot" brings the IHP reading down to the appropriate limit, then it should not be necessary to remove soil from the whole 25 meter square area.
4. **Plowing Advisability** - The Advisory Group is awaiting the results of the plowing experiment before considering any guidance regarding plowing.
5. **Island Average vs Maximum Values - Remedial action** is based upon maximum contamination levels. Radiological dose assessment and decisions regarding repopulation should be based on average values for larger environmental units such as an entire island or group of islands.
6. **Contaminated Bunker Guidance** - Precise adherence to the ANSI standard is not appropriate to the bunker situation. Since strenuous efforts have been made to remove loose contamination and because of its location and quantity the fixed contamination does not appear to represent a health hazard. The preservation of a bunker as a storm refuge for island residents is a worthwhile alternative to disposition of these structures. Although of no apparent benefit to subsequent residents, the off-shore Kickapoo tower anchor blocks do not appear to be a radiation hazard and need not be removed.
7. **Subsurface Contamination** - Subsurface contamination is defined as radioactivity more than about 2 cm under the ground surface, or at a depth not detectable by the DP. The Advisory Group is not yet prepared to offer guidance. In fact some members of the Advisory Group do not believe we should recommend criteria for subsurface contaminations because of the uncertainty of the extent of subsurface contamination on the atoll. Subsurface contamination in small "hot spots" is apt to

reach human inhabitants only through processes that involve "averaging." Examples are mixing of the "hot spot" with soil containing lower concentrations (as would occur in farming operations), dilution as the "hot spot" becomes distributed throughout an ecosystem, and redistribution of the "hot spot" by wind erosion or solubility in water. Therefore it is entirely appropriate to incorporate averaging in the criteria. The Advisory Group believes this can be accomplished by averaging subsurface radioactivity throughout the total soil column above the "hot spot." The Advisory Group is opposed to recommending criteria that would require a complex sampling scheme, an inordinate compliance effort, or that would lead to removal of far more soil than is necessary to accomplish the desired reduction of the potential radiation dose to inhabitants. The Advisory Group will give further consideration to this question at its next meeting.

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