

issues are being individually addressed, the broad and long term aspects could be neglected. An example of our reason for concern is the singular attention to the transuranics at Enewetak with little effort expended on ^{90}Sr and ^{137}Cs and the lack of a plan to do a thorough dose assessment

H. Hollister

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after the cleanup. Since a thorough dose assessment requires data on the incorporation of radionuclides in food stuffs, considerable advance planning is necessary. I will call you with further comments and suggestions.

Other concerns arose at the October 3-4 meeting which are not mentioned on the attached. Most are related to the management topic. For example, we are interested in knowing about DOE's plans to obtain the data, especially on ^{90}Sr and ^{137}Cs , needed to complete a dose assessment on the islands that have been cleaned up.

We were informed that no intercalibration of the radionuclide analysis conducted by the ERSP laboratory on Enewetak had been done or was planned. We believe this essential to the credibility of the analytical effort.

The Advisory Group continues to believe that a review meeting for all Northern Marshall Islands projects would be profitable. Planning for such a meeting should be initiated soon if it is to be held early in 1979.

I note that there is concern among some of the Advisory Group members that we are being asked to give guidance on specific technical matters for which we have inadequate information and insufficient time and resources to gather and evaluate the available data. For example, we believe we are much more effective in reviewing position papers on technical issues (dose assessment paper by Robison and Noshkin), policy issues (the Deal letter to Admiral Monroe regarding coconut planting), and operational issues (the Northern Marshall Islands Survey Plan) than we are in providing guidance to specific technical matters for which we have little first hand knowledge of the data and their limitations. Furthermore, I believe we could offer more positive advice on the Aomon Crypt and on subsurface contamination if we could review plans proposed by the Joint Task Group, the DOE and contractor staff at Enewetak, etc. These people have the necessary technical data to develop action plans and to support their plan for review by the Advisory Group or by anyone else.

Before the next meeting of the Advisory Group we would like to resolve several action items that remain from previous meetings. I'll send you a tabulation of these. From this list we can easily develop an agenda for our next meeting. We would also expect to deal with any new issues identified by the DOE staff or the JTG.

Sincerely,

D. Marks
for W. J. Bair, Ph.D.
Manager
Environment, Health and
Safety Research Program

Enclosure: Comments and Recommendations...

COMMENTS AND RECOMMENDATIONS BY THE MARSHALL ISLANDS ADVISORY GROUP

The Marshall Islands Advisory Group provides the following comments and recommendations on issues discussed at a meeting on October 3-4, 1978 concerning the cleanup and rehabilitation of Enewetak Atoll.

1. Planting of Coconut Trees on Northern Islands of Enewetak

The Advisory Group concurs with the DOE letter of September 29 to Vice Admiral R. R. Monroe from L. J. Deal.

A final decision concerning the permissible degree of occupancy of the northern islands can be made only after conclusion of the present cleanup effort and after acquisition of additional information on applicable living habits and food chains and the movement of radionuclides such as ^{90}Sr , ^{137}Cs , ^{239}Pu and ^{241}Am through these food chains. Pending this evaluation it would be unfortunate if steps were taken that would encourage the Enewetak people to believe that a decision had already been made. (We assume that it has not been stated or implied to the people that they can expect to return to the Northern Islands at the completion of the cleanup effort.) This is particularly cogent in view of the unfortunate experience at Bikini. That experience suggests that coconuts grown on the northern islands might not be suitable for human consumption and might not be suitable for copra production. To plant coconut trees on the northern islands at this time might, therefore, require their early future destruction, which could have unfortunate repercussions. Alternatively it might require restricting their consumption, which the Bikini experience would indicate to be ineffective. Therefore, the Advisory Group recommends that coconuts not be planted now and that decisions to plant in the future be delayed until dose assessments and evaluations are completed.

2. Cleanup Guidance for Subsurface Contamination

In some situations, such as those with the subsurface contamination at Boken and Enjebi, it is not appropriate to apply a generic plan such as the operation plan. Instead, in situations as well defined as these, it is better to rely on judgments specific to these situations. We would, therefore, recommend that the identified pockets of contamination on Boken be removed and that the contamination on Enjebi be left, unless further definition of the subsurface pockets indicate pockets exceeding 160 pCi/gm. Consideration should be given to removal of the asphalt under the soil on Enjebi so that vegetation will grow. With regard to the Aomon Crypt, the Advisory Group would be pleased to review any plan proposed by the DOE or JTG. Based on the few data made available to us and our observations during our visit, we continue to believe it is an engineering problem that can be handled by Col. Bauchspies. Removal of the

buried material and burial in the sea or in the Cactus Crater seems to be logical. Where the OPLAN conditions are inadequate to fully represent the situation, or where it is unclear how the conditions are to be applied, the Advisory Group believes that situation-specific judgments should be exercised by the DOE technical staff at Enewetak in conjunction with the JTG.

3. Enjebi Experimental Garden Plot

During the course of several meetings the Group has had the opportunity to refer to data that might be obtained from the garden plot on Enjebi. During its visit to the atoll in August the group briefly visited the plot. The Group has the impression that the garden has considerable potential for providing information on the relationships between radionuclides in soil and edible crops. Such information is of paramount importance in making informed recommendations about the future use of the northern islands of Enewetak Atoll and the return of the Marshallese to these islands.

Based on our limited information concerning the garden plot and on our visit to it, we are particularly concerned that the garden will not be able to provide the information needed in a timely manner.

The group strongly recommends that the role of the garden plot as a part of an overall integrated plan for making radiological assessments be carefully evaluated. If the plot has a key role, it should be clearly defined and adequately supported to carry out its mission. This should include consideration of an alternate location in the event logistics problems are insurmountable after the JTG effort is completed.

4. Plowing Experiment

A review of preliminary data from the plowing experiment suggests that plowing decreased the potential for resuspension of plutonium since the plutonium in the surface soils appeared to be nearly uniformly mixed with all of the plowed soil. Thus, plowing probably would reduce the amount of plutonium that could be inhaled. However, while plowing might reduce the health risk from inhaled plutonium, the possibility remains that plowing could increase the availability of ^{90}Sr , ^{137}Cs , ^{239}Pu and ^{241}Am to plant roots. To comment further on plowing, the Advisory Group requires comparative data on the levels of ^{90}Sr and ^{137}Cs , ^{239}Pu and ^{241}Am in plowed and unplowed soil and on the uptake of these radionuclides in plants grown in the plowed and unplowed soil. Dose assessments for the two conditions could then be obtained and used in determining the benefits of plowing with respect to rehabilitation of the Northern Islands.

ADVISORY GROUP

Distribution

William L. Templeton, PNL
Richard O. Gilbert, PNL
Chester R. Richmond, ORNL
John A. Auxier, ORNL
Chester W. Francis, ORNL
John W. Healy, LASL
Roger O. McClellan, Lovelace
Bruce W. Wachholz, DOE
Tommy F. McCraw, DOE

REPOSITORY PNNL
COLLECTION Marshall Islands
BOX No. 5686
FOLDER Eniwetok Oct - Sept 1978

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Reviewed by J. Schuette Date 4/30/97