

FEB 25 1982

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MEMORANDUM FOR: John B. Martin, Director
Division of Waste Management

FROM: Michael J. Bell, Chief
High-Level Waste Licensing
Management Branch
Division of Waste Management

SUBJECT: STATUS OF ICRP-30 DOSIMETRY



Our investigations of the status of ICRP-30 over the past three weeks have produced the following:

- ° Frank Arsenault's memo to you dated February 2, 1982 stated "we see no reason for not using ICRP #30 and believe all NRC offices should adopt it." K. Eckerman of ORNL and others have cautioned that some of the data of ICRP-30 may need to be modified slightly for environmental analyses if the chemical form of a nuclide in the environment is likely to be different from that associated with occupational exposures. While ICRP-30 probably gives the best currently available estimate of environmental doses, more work needs to be done on the input data for such analyses.
- ° RES plans to use ICRP-30 as the basis for revising Part 20 (both occupational and non-occupational limits). However, this revision is "a long way off" according to W. Mills.
- ° No other NRC plans for use of ICRP-30 have been identified. Last summer a working group was set up to look into NRC adoption of ICRP-30 (with G. Page as the NMSS representative) but nothing has been accomplished to date and no progress is currently being made.
- ° RES had contracted with K. Eckerman of ORNL to calculate ICRP-30 based dose conversion factors similar to the factors of Reg. Guide 1.109. The RES funding for this work has been terminated, but Eckerman thinks he may be able to complete the work on "laboratory overhead".
- ° DOE's assertion that the NRCP will reject ICRP-30 seems to be unfounded. I have initiated a letter directly to the NRCP asking for information about their work related to ICRP-30.

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- 2 -

- ° Sandia has been directed to review DOE's research programs related to ICRP-30 dosimetry parameters, with particular emphasis to be given to the actinide research programs. Sandia's results are to be reported in a letter report due May 15, 1982.

I think the best way to resolve the questions about ICRP-30 would be to convene an advisory panel of dosimetry experts to review the ICRP-30 data and to identify places where different data should be used for environmental analyses, or where additional research is needed. I have initiated an inquiry to the NCRP which may lead to formation of such an advisory panel, or adoption of this effort by an existing NCRP panel. (Committee #57 is reportedly already doing some work in this area.)

I have also prepared a position description for an additional health physicist for my staff. This additional person would allow developments in the dosimetry field to be followed more closely, and would allow the WM Division to react more quickly to changes in the field.

In our reply to ticket #WM-82-100 (due March 12), we will update the status of the NCRP's work, and will work with WMUR to develop an interim position on ICRP-30.

This memo closes ticket #WM-82-086.

151
Michael J. Bell, Chief
High-Level Waste Licensing
Management Branch
Division of Waste Management

cc: J. Davis, RES
W. Mills, RES
G. Page, NMSS
D. Martin, NMSS
E. Branagan, NRR

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