

National Radiological Protection Board

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Dr. W.H. Weyzen,
Manager, Human Health Studies Programs,
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Department of Energy,
Washington, D.C. 20545,
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Your ref

Our ref

28th October, 1977.

Dear Walter,

Herewith the review you invited. You gave no indication of the detail you would like, so I have adopted a general approach and kept the length down. The alternative, to have worked through each table in turn, would have made very turgid reading but moreover would have distracted attention from what I consider to be the major inadequacies of the report.

The widespread and rapid publicity of the report, even before publication, has already lead to its findings being exploited in several contexts. We are involved in evidence for two high court hearings in which the MSK report has been cited to estimate balance of probabilities between spontaneous and radiation-induced malignances. In one, the MSK figures lead to a 99% probability that a myeloma death was due to levels of radiation within occupationally permitted limits! The report also received a day of direct publicity at the Windscale Inquiry together with many references to it by objectors to the proposed expansion.

I would advise that this report has very little scientific merit and that therefore the findings have very little validity. Adding a little more than is deducible from the report (ie. an impression formed by talking to each of the three authors), I feel that Mancuso left all the technical aspects of the analysis to Stewart and that in turn she left all the details to Kneale. Kneale is a man who is so involved with his statistical methods that he overlooks all the gross features in the raw data and does not see contradictions between the original data and the results of a method in which he has invested implicit faith. Along with most people with whom I have discussed this report, I find the style of written account distinctly unhelpful in understanding the analysis. The tables are not formulated in a coherent way, some headings having different meanings in different places. An example of obscurity in the tables, is the column 'Age in Years' in tables 21 and 22; this means men hired below this age and dying at some later time. Such an interpretation is not clear from the report and hence the table lends itself to erroneous application.

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cont./....

REPOSITORY DOE-FORRESTAL

BOX No. 4 of 6

COLLECTION MARKEY FILES

FOLDER Mancuso File 3/26/81

It would appear from communications with Sid Marks and Ethel Gilbert, and from the analysis of Charles Land, that the only statistically significant finding which survives the various corrections is the Myeloma deaths of the three men with doses of 34 rads (age 71), 29 rads (age 58) and 20 rads (age 71). Even here caution is necessary since the finding is based on only 3 deaths, two of these at an age when myeloma incidence is becoming high. Had the authors drawn attention to these myelomas as the main finding and concluded an urgent need to look at other groups for excess myelomas, they would have made a better contribution to radiation epidemiology.

One general comment about the data files used in the study. It seems to me that one of the difficulties in checking any analysis is that subsequent updating of the file makes it impossible to test exactly the same data as analysed earlier. We have a similar data file but all transactions with the file are recorded on another file so that the file can be regenerated to the status it had on any particular date. I would recommend the procedure to your contractors so that they can avoid the problems that Ethel Gilbert has experienced when she tried to check the data used by MSK.

I hope my comments are of help, I am sorry that they read so critically. I look forward to an analysis of the Oak Ridge Data and perhaps a more circumspect analysis of the Hanford Data. I would be grateful if you would let me know whether the review is purely for your own use or if it will be published or made more widely available.

Yours sincerely,



J.A. Reissland

Encs.

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