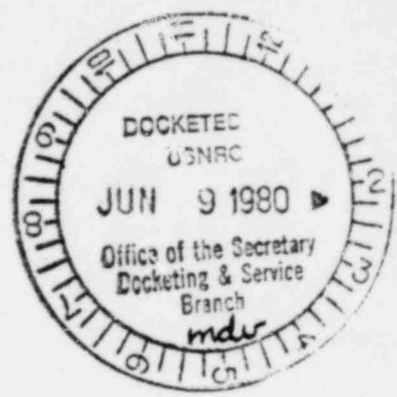


OH 9024

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June 3, 1980

DOCKET NUMBER
PROPOSED RULE PR-Misc Notice
Reg Guide

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Director
Division of Technical Information and Document Control

RE: Instruction Concerning Risk from Occupational Radiation Exposure

Gentlemen:

Thank you for the rare opportunity to participate in development of proposed guides, regulations and decrees.

The intent of the document is to estimate the possibility of risk of injury, illness or death from occupational radiation exposure.

On page 8, cigarette smoke and natural radiation are lumped together as cancer causes, thus implying that they are of relatively equal magnitude as cancer causes. Such statements are misleading and detract from a realistic evaluation of risk.

Likewise on page 8, it would have been more appropriate to discuss the possibility of drawing 13 spades in succession in order to grasp the true magnitude of the possibility of developing cancer from occupational radiation exposure.

The comparison with sunshine as a cause of cancer could be improved by stating that excessive exposures for many years has been associated with exposure to heat, cold, dirt and sweat as a cause of skin cancer. In Southeast Missouri nearly all the skin cancer patients I have seen have picked cotton for years and therefore it must be stressed that many factors, at times including cotton plant parts, act together to cause cancer.

Table I page 9 is incomplete without the listing of at least one article to indicate there may be no cancer risks from low level radiation, such as; LOW DOSE RADIATION AND LEUKEMIA, Mayo Clinic and Foundation, Rochester, Minn., New England Journal of Medicine 1980; 302; 1101-5.

Again on page 10, natural background radiation is listed with smoking as a possible cause of cancer which is comparable to equating zero and infinity.

On page 13, re- health risks from occupational radiation exposures, "not greater" should be replaced by "much smaller" for the sake of accuracy.

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Acknowledged by card 6/9/80...mdw...

On page 16, "at low doses health effects do not seem to be affected by dose rates". This is totally contradicted by the Mayo Clinic report which states, "NO statistically significant increase ... in leukemia after radiation doses of 0 to 300 rads (3Gy) ... administered over long periods of time."

Similarly, the conclusion that spreading out of the dose may reduce the individual risks but not that of the population, flies in the face of increased recovery with lower dose and the "Low Dose and Leukemia" report.

Relative to "collective" dose, the point is well made that the use of extra workers may increase the total occupational dose. Also, setting a single collective dose limit is totally impractical.

Reference to 0 mph and 0 rem per quarter and not getting anywhere as stated at the bottom of page 19 is a tragically true description of our energy program, particularly our nuclear energy program. Our rejection of breeder reactors has made us the laughing stock of the whole world.

Likewise spending \$23 billion to prevent hypothetical radiation-induced cancer deaths cannot be justified and would further increase the obstacles to a practical energy program.

The following references should be added to the bibliography:

Arthur C. Upton, Radiation from Nuclear Power Exaggerated, The New England Journal of Medicine, Volume 302, May 22, 1980, pages 1205-1206.

Athena Linos, Joel E. Gray, Alan L. Orvis, Robert A. Kyle, W. Michael O'Fallon and Leonard T. Kurland, Low Dose Radiation and Leukemia, The New England Journal of Medicine, Volume 302, May 15, 1980, pages 1101-1105.

I am looking forward to reviewing your proposed regulatory guide with updating as suggested above.

Sincerely,

A.T. Tuma, M.D.
Radiologist
Physicist
ATT/paf

Poplar Bluff Hospital, Inc.

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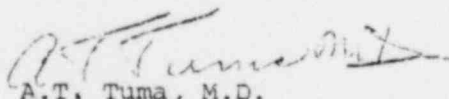
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