

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
METROPOLITAN EDISON COMPANY, ET AL.
(Three Mile Island Nuclear Station,
Unit 1)

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Docket No. 50-289
(Restart)



NRC STAFF'S COMMENTS ON MEMORANDUM AND ORDER
OF MAY 14, 1981 REGARDING DR. JORDAN'S
CALCULATION OF THYROID DOSE

INTRODUCTION

In a Memorandum and Order dated May 14, 1981, the Licensing Board in the captioned proceeding forwarded a calculation performed by Dr. Jordan of the dose in rads to a thyroid containing 1 micro-curie of iodine-131 per gram of tissue. The Licensing Board proposes to take official notice of Dr. Jordan's calculation and apply it in evaluating the discrepancy between the testimony of ECNP's witness Dr. Molholt and the Staff's witness Mr. Peterson on the dose to a thyroid from a concentration of iodine-131 in thyroid tissue. The Licensing Board invited parties with an interest in the matter to file, by May 26, 1981, objections or comments in response to the Board's proposed use of Dr. Jordan's calculation.

NRC STAFF'S COMMENTS

Mr. Peterson of the NRC Staff has reviewed Dr. Jordan's calculations. Based on that review, the Staff agrees that the calculations are standard, accepted calculations for determining the dose to an adult thyroid and does

not object to the Licensing Board's use of Dr. Jordan's calculation in evaluating the discrepancies between the testimony of Dr. Molholt and Mr. Peterson.^{1/}

The Staff has two comments related to Dr. Jordan's calculation:

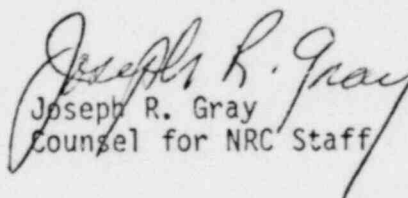
(1) the calculation is for a dose to the adult thyroid whereas the calculation as to which Mr. Peterson orally testified was for an infant thyroid (Tr. 20502-03, 20506, 20508 (Peterson));

(2) the result for Dr. Jordan's calculation is closer to 129 rad (128.75 rad) per micro-curie of iodine-131 per gram of thyroid tissue than 128 rad per microcurie.

CONCLUSION

The Staff does not object to the Licensing Board's use of Dr. Jordan's calculation of dose to an adult thyroid in evaluating the discrepancies between the testimonies of ECNP witness Molholt and NRC Staff witness Peterson.

Respectfully submitted,


Joseph R. Gray
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 26th day of May, 1981

^{1/} The Staff takes no position on whether the calculations performed by Dr. Jordan constitute the type of facts that may be officially noticed in strict, technical compliance with the official notice provision of the Rules of Practice, 10 CFR § 2.743(i). However, the Staff would note that the Licensing Board is free to evaluate the evidence of record by its own analysis, utilizing data in the record together with universally accepted engineering principles and known facts. Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-229, 8 AEC 425, 437, rev. on other gnds., CLI-74-40, 8 AEC 809 (1974). Dr. Jordan's calculation and the use the Licensing Board intends to make of it appears to fall within the ambit of such Licensing Board authority.

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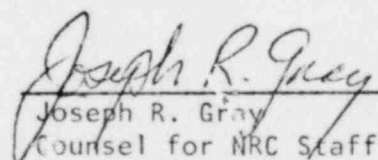
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Atomic Safety and Licensing Appeal
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