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U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Springs, MD 20910

January 10, 1985

RESULTS OF SANDIA/SWEC CODE COMPARISON

As noted in my letter of December 26, 1984 to Dr. Walter Pasedag, I promised to send an improved figure which depicts the results of the analysis of iodine leakage as a function of containment opening size as calculated by Sandia National Laboratories and Stone & Webster Engineering Corporation SWEC. The enclosed figure presents these results.

Several notes are in order pertaining to this figure. First, it was re-drawn in log/log format to better illustrate the important region of opening sizes less than 1.0 ft². Secondly, it should be pointed out that these analyses are based on a single control volume representation of the Surry containment and therefore do not include any effects of multicompartment within the containment or structures outside the containment.

The Sandia data were provided by Dr. David C. Williams of Sandia, whose cooperation in this activity is gratefully acknowledged. Any questions on the Sandia analyses should be directed to him. Any questions on the SWEC analyses should be directed to the undersigned.

Sincerely,

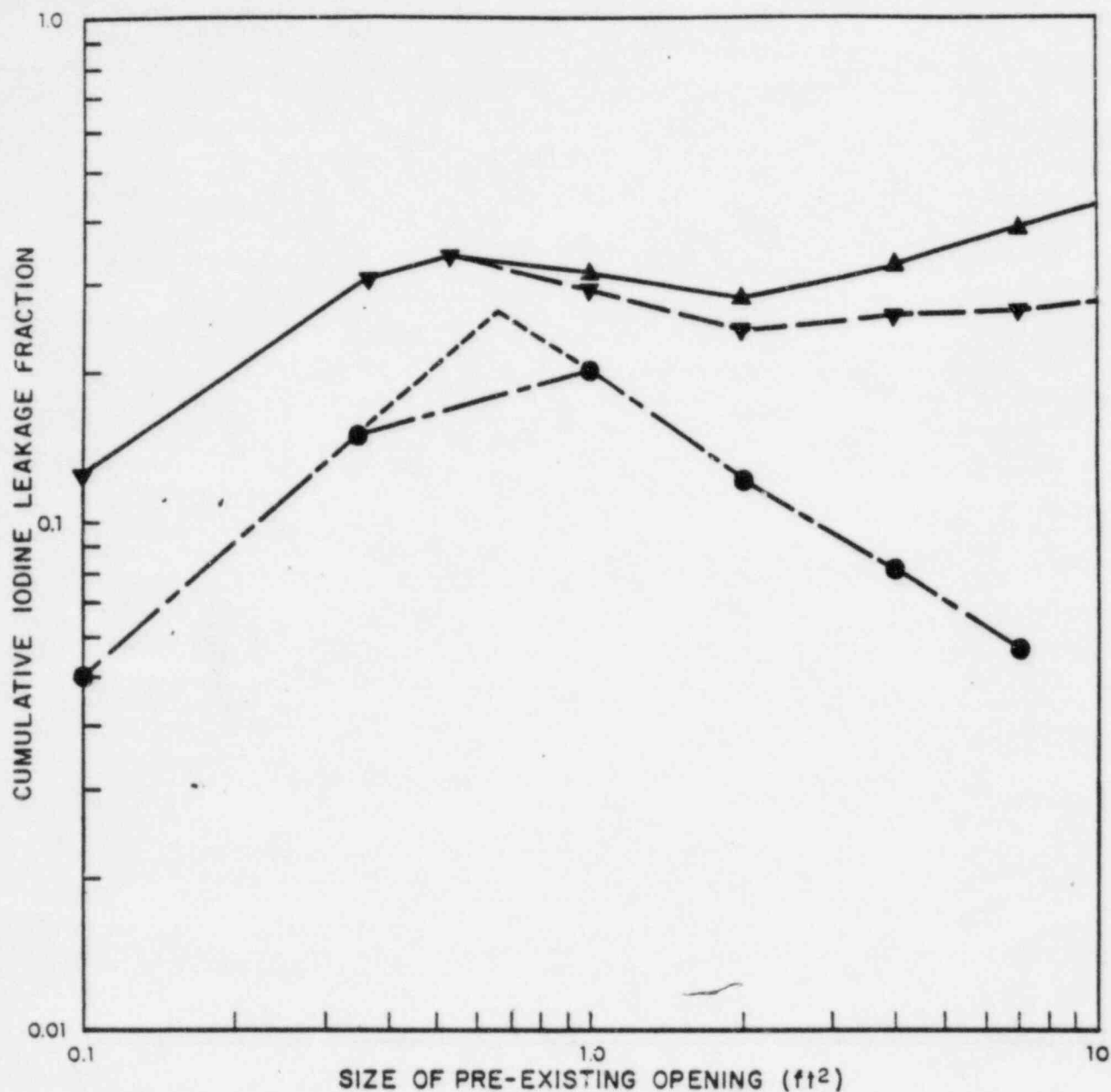
E. A. Warman
Edward A. Warman

Set of 3 letters

Enclosure

CC: DrDCWilliams-Sandia National Laboratories
DrWRStratton-Stratton & Associates
ProfRWilson-Harvard University

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LEGEND:

- CONTAIN ANALYSIS WITH
H₂ BURNS
- CONTAIN ANALYSIS WITHOUT
H₂ BURNS
- - - - - ANS/SWEC STUDY
THREED/NAUA
(NO H₂ BURNS PREDICTED)

EFFECT OF CONTAINMENT OPENING
SIZE ON CUMULATIVE LEAKAGE
AS CALCULATED BY SANDIA AND
ANS / STONE & WEBSTER
SURRY AB- β SEQUENCE