

Westinghouse
Electric Corporation

Water Reactor
Divisions

Nuclear Technology Division

Box 355
Pittsburgh Pennsylvania 15230

November 30, 1982

NS-EPR-2687

Dr. Cecil O. Thomas, Chief
Standardization and Special Projects Branch
Division of Systems Integration
U.S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland 20014

ATTENTION: Mr. Carl H. Berlinger (CPB)

SUBJECT: "Properties of Fuel and Core Component Materials" WCAP-9179,
Revision 1 (Proprietary) and WCAP-9224 (Non-Proprietary)

REFERENCE: Letter (NS-TMA-1985) from Westinghouse (T. M. Anderson) to
USNRC dated November 10, 1978

Dear Dr. Thomas:

Enclosed are:

1. Three (3) copies of Westinghouse response to WCAP-9179, Rev. 1/
WCAP-9224 SER open item concerning Zircaloy irradiated properties
(Proprietary).
2. Three (3) copies of Westinghouse response to WCAP-9179, Rev. 1/
WCAP-9224 SER open item concerning Zircaloy irradiated properties
(Non-Proprietary).

Also enclosed are:

1. One (1) copy of Application for Withholding (Non-Proprietary).
2. One (1) copy of original affidavit (Non-Proprietary).

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The NRC by its letter dated September 29, 1982 completed its review of Westinghouse WCAP-9179, Rev. 1 (and Non-Proprietary Version WCAP-9224), entitled "Properties of Fuel and Core Component Materials" dated July 1978. One of the limitations stated therein was, "The Zircaloy irradiation strengthening values are uncharacterized and provided for information only. Hence, no credit will be given for beneficial effects due to irradiation strengthening." This was based upon Westinghouse's response to Question 5

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(reference) which stated that no credit was taken for irradiation strengthening and that irradiation values were included for informational purposes. The Westinghouse response (reference) was prepared to address fuel assembly structural components and did not consider the fuel rod design where credit for irradiation is taken. The fact that credit is taken was documented as part of the WCAP-9500 Reference Core Report 17x17 Optimized Fuel Assembly review and acknowledged in the NRC's Safety Evaluation dated May 1981 (page 7).

In light of the above we are providing Attachment 1 as supplementary information to address Question 5. This shows that there is excellent agreement between BMI-NUREG-1948 data and best estimate curves described by equations contained in WCAP-9179, Rev. 1. We request your consideration of this additional information so we may include elimination of the stated limitation in our preparation of approved copies of the subject topical report.

This submittal contains proprietary information of Westinghouse Electric Corporation. In conformance with the requirements of 10CFR2.790, as amended, of the Commission's regulations, we are enclosing with this submittal, an application for withholding from public disclosure and an affidavit. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission.

Correspondence with respect to the affidavit or application for withholding should reference AW-82-70 and should be addressed to R. A. Wiesemann, Manager of Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230.

Very truly yours,



E. P. Rahe, Jr., Manager
Nuclear Safety Department

MDB/kk
Enclosures