



Idaho National Engineering Laboratory

February 18, 1993

Y-S. Chen
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

REQUEST FOR WESTINGHOUSE AP600 TECHNICAL REPORTS - LGP-1-93

Dear Dr. Chen:

The attached list of Westinghouse technical reports are needed to support development of severe accident models for analysis of Advanced Reactor high burn-up fuel under severe accident conditions. Several of these reports are proprietary and need to be requested formally through the Westinghouse AP600 liaison, Rick Hasselberg. Rick Hasselberg's phone number is 301-504-1141.

Information is also requested as to the location of the stainless steel reflector relative to the outer boundary of the reactor core and other structures near the boundary of the reactor core. In particular, a figure would be useful that showed a horizontal cross section through the midplane of the core and from the periphery of the core through the outer boundary of the stainless steel reflector. The figure should identify the dimensions and composition of the structure in this region, including the core former and baffle plates in the core bypass region. It should indicate whether the stainless steel reflector is between the outermost fuel bundles and the core former and core baffle region or outside of the core former and core baffle region. The figure should also identify paths for fluid flow through the reflector. In particular, in the event of a severe accident in which molten core material spills over the side of reactor core as happened in the TMI-2 accident, the figure should identify the flow paths for the molten core material. If the configurations change with respect to elevation, then cross sections at elevations other than the core midplane are also required.

If you have any questions, please contact me at 208-526-9685.

Sincerely,

L. G. Price
Severe Accident Methods
Development & Analysis

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Attachment:
As stated

cc: W. H. Rettig, DOE-ID, MS 1134

1. Davidson, S. L. (Ed.), "Fuel Criterion Evaluation Process," WCAP-12488, (Proprietary) April 1990
2. Davidson, S. L. (Ed.), et al., "Extended Burnup Evaluation of Westinghouse Fuel," WCAP-10125-P-A (Proprietary), and WCAP-10126-NP-A (Non-Proprietary), December 1985
3. "Operational Experience with Westinghouse Cores," WCAP-8183, (revised annually)
4. Beaumont, M. D., et al., "Properties of Fuel and Core Component Materials," WCAP-9179, Revision 1 (Proprietary), and WCAP-9224 (Nonproprietary), July 1978
5. Hellman, J. M., Ed. "Fuel Densification Experimental Results and Model for Reactor Applications," WCAP-8218-P-A (Proprietary) and WCAP-8219-A (Nonproprietary), March 1975
6. Weiner, R. A. et al., "Improved Fuel Performance Models for Westinghouse Fuel Rod Design and Safety Evaluations," WCAP-10851-P-A (Proprietary) and WCAP-11873-A (Non-Proprietary), August 1988
7. Gesinski, L., and Chiang, D., "Safety Analysis of the 17x17 Fuel Assembly for Combined Seismic and Loss-of-Coolant Accident," WCAP-8236 (Proprietary) and WCAP-8288 (Nonproprietary), December 1973