



UNITED STATES  
ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

DEC 22 1972

NOTE TO FILES

The attached preliminary request for additional information concerning Duke Power Company's decision to install flow limiters on Oconee 1, 2 and 3 was transmitted by telecopier to B&W at Duke Power's request on December 21, 1972. A tentative date for presentation of this information to the AEC was set for January 4, 1973. Since B&W is recommending this modification to all their customers, they were asked to advise their customers to contact the appropriate Licensing Project Manager when a decision had been made on B&W's recommendation. This information request supplements that made by A. Schwencer on December 20, 1972 and documented by note to files.

*Donald K. Davis*

Donald K. Davis  
Pressurized Water Reactor  
Branch No. 4  
Directorate of Licensing

Attachment:  
Preliminary request

cc: RCDeYoung  
DFKnuth  
DFLange  
SSPawlicki  
VStello  
JBHenderson  
PWR-4 Project Managers

8001100 717 *M. L. L...*  
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ADDITIONAL INFORMATION REQUIRED FOR REVIEW OF CFT NOZZLE FLOW LIMITER

## I. Mechanical-Materials Information

- a. Description of design
- b. Description of materials involved
- c. Design basis
  - (1) loadings
  - (2) thermal stress
  - (3) fatigue life of nozzle (# of cycles)
- d. Installation procedure (compliance with codes & standards)

## II. Reactor Safety Information

- a. Drawing of orifice
- b. Methods of determination of  $k$  factors for both forward and backward flow (commitment to test program for verifying CFT injection rate)
- c. Calculations of the postulated accident using all appropriate models as discussed in previous meetings
  - (1) Pressure and water level in vessel versus time
  - (2) Vent Valve and break flow versus time
  - (3) Peak Clad temperature versus time
  - (4) Downcomer density and velocity versus time
  - (5) Axial heat transfer coefficients for hot rod versus time
    - (a) Use three axial peaking profiles (bottom, cosine, and top peak)
    - (b) Details of heat transfer correlations used
  - (6) Details of all CRAFT models and heat up models used for these analyses
- d. Show the effect of the changed CFT injection rate ( $k$  factors) from II. b. on the calculations presented in BAW-10034, Revision 3.