



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AEOD/E104

MAR 2 1981

MEMORANDUM FOR: Thomas A. Rehm, Assistant for Operations  
to the Executive Director for Operations

FROM: Carlyle Michelson, Director  
Office for Analysis and Evaluation  
of Operational Data

SUBJECT: ENGINEERING EVALUATION OF FEEDWATER TRANSIENT AND SYSTEM PIPE  
BREAK AT TURKEY POINT UNIT 3

- References:
- (1) Letter, William J. Dircks, Executive Director for Operations, Nuclear Regulatory Commission to The Honorable Dante B. Fascell, United States House of Representatives, dated January 29, 1981.
  - (2) Letter, Honorable Dante B. Fascell, Member of Congress, House of Representatives, to Mr. Carlton C. Kammerer, Director Office of Congressional Affairs, NRC, dated December 5, 1980.
  - (3) Letter, Warren Hoskins, President Conchshell Alliance to Congressman Dante B. Fascell, dated December 2, 1980.

Pursuant to your request, AEOD has reviewed the NRC response (Reference 1) to Congressman Fascell's letter of December 5, 1980 (Reference 2). The enclosure to Congressman Fascell's letter contained a letter from Mr. Warren Hoskins (Reference 3) concerning the series of events that occurred at Turkey Point Nuclear Power Station, Unit 3, on November 19, 1980. It is our belief that the issues presented and the information enclosed was responsive to Mr. Hoskin's concerns. Although the IE evaluation did not address the specific failures leading to the sequence of events, AEOD concurs in general with the NRC letter.

Based on our review of the letters, AEOD conducted an engineering evaluation to determine the causes for the reactor trips and the break of an alternate feedwater pipe from Fossil Unit No. 2. Our brief evaluation has concluded that the multiple failures of the Copes-Vulcan feedwater valves lead to the feedwater flow instabilities and subsequent reactor trips. The feedwater instabilities induced severe vibration in the secondary cooling system which apparently sheared the two-inch ancillary feedwater pipe. Enclosed is a description and sequence of occurrences at Turkey Point 3 and our evaluation of the event.

*Carlyle Michelson*

Carlyle Michelson, Director  
Office for Analysis and Evaluation  
of Operational Data

Enclosure:  
As stated

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