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Standardized Nuclear Unit
Power Plant System

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Executive Director

April 29, 1982

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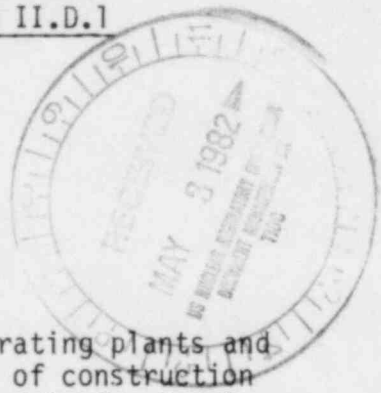
SUBJ: NUREG 0737 Item II.D.1



Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Docket Nos: STN 50-482 and STN 50-483

Ref: 1. NRC (Eisenhut) letter to all licensees of operating plants and applicants for operating licenses and holders of construction permits dated September 29, 1981, Revised Schedule for Completion of TMI Action Plan Item II.D.1, Relief and Safety Valve Testing (Generic Letter No. 81-36).
2. SLNRC 82-017 from SNUPPS, NUREG 0737 Item II.D.1 3/26/82.
3. Consumers Power (Hoffman) letter to Denton, Transmittal of PWR Safety and Relief Valve Test Program Reports, 4/01/82.
4. EPRI Report on Valve Selection and Justification, 12/18/81.
5. EPRI Report on Valve Inlet Fluid Conditions for Pressurizer Safety and Relief Valves in Westinghouse Designed Plants, 1/29/82.
6. EPRI Report on Test Condition Justification, 4/05/82.
7. EPRI Report on Safety and Relief Valve Tests, 4/05/82.
8. EPRI Report on Application of RELAP 5/MOD 1 for Calculation of Safety and Relief Valve Discharge Piping Hydrodynamic Loads, 4/02/82.

Dear Mr. Denton:

In accordance with the initial recommendations of NUREG 0578, Section 2.1.2 as later clarified by NUREG 0737, Item II.D.1 and the USNRC letter (Reference 1) and extended by Reference 2, each Pressurized Water Reactor (PWR) Utility is to submit a preliminary evaluation supported by test results which demonstrates the capability of relief and safety valves to operate under expected operating and accident conditions.

This letter is the SNUPPS response to the above USNRC request and is applicable to the Callaway and Wolf Creek plants.

Union Electric, Kansas Gas and Electric, and Kansas City Power & Light are all participants in the Generic PWR Safety and Relief Valve Test Program implemented by the Electric Power Research Institute at the request of participating PWR Utilities in response to the USNRC recommendations for safety and relief valve testing.

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The primary objective of the Test Program was to provide full scale test data confirming the functionability of primary system power operated relief valves and safety valves for expected operating and accident conditions. The second objective of the program was to obtain sufficient thermal hydraulic load data to permit confirmation of models which may be utilized for plant unique analysis of safety and relief valve discharge piping systems.

Relief valve tests were completed in August, 1981 and safety valve tests were completed in January, 1982. The reports prepared by EPRI documenting the Test Program results are references 4 through 8. All of the documents have been transmitted to the NRC by reference 3.

In addition to providing the referenced reports, SNUPPS has performed a preliminary review of the test program results. Based on the review, we have concluded that the valves tested represent the safety and relief valve designs and that the conditions tested envelope the range of expected operating and accident conditions for the Callaway and Wolf Creek plants. Also, the above mentioned reports provide the results required by NUREG 0737, Item II.D.1.A which will be used to perform the final plant specific evaluations.

The SNUPPS plants utilize Garrett power operated relief valves (PORV) and Crosby 6M6 safety valves. Tests conducted on the Garrett PORV have confirmed that the valve opened and closed on demand and that the valve suffered no damage that would preclude future operation. The tests included steam, steam-to-water transition, water, and pre-load conditions. Specific information related to these tests is given in reference 7.

The Crosby 6M6 safety valves successfully opened and closed in tests conducted with steam, steam to water transition, and water. Specific information related to these tests is also given in reference 7. Certain areas of system performance (inlet and downstream piping and the valves) are still undergoing review. Clarification of these aspects of behavior under test and their impact on plant performance is expected prior to July 1, 1982 in the form of an action plan as stated in reference 2.

Very truly yours,

Nicholas A. Petrick

JOC/jdk

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