

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

October 30, 1979

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RE: 010: 33

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

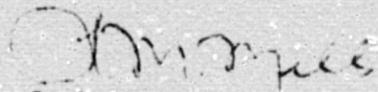
OFFICE OF INSPECTION AND ENFORCEMENT BULLETIN 79-24 - RIU:JPO
50-327, -328, -390, -391 - SEQUOYAH AND WATTS BAR NUCLEAR PLANTS

Enclosed is our response to OIE Bulletin 79-24 on frozen lines trans-
mitted by your letter to H. G. Parris dated September 27, 1979.

If you have any questions concerning this matter, please get in touch
with D. L. Lambert at FTS 854-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Jr., Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

SEQUOYAH AND WATTS BAR NUCLEAR PLANTS
RESPONSE TO NRC OIE BULLETIN 79-24

Action To Be Taken by Licensee

All licensees and construction permit holders receiving this Bulletin for action are requested to review their plants to determine that adequate protective measures have been taken to assure that safety-related process, instrument, and sampling lines do not freeze during extremely cold weather. The results of these reviews should be reported to the Regional Director by October 31, 1979.

Response

TVA's design criteria for freeze protection heat tracing is "maintain $40^{\circ}\text{F} \pm 5^{\circ}\text{F}$ with an outside temperature of -10°F and a 30 mph wind." If the heat tracing system fails, an alarm is initiated in the main control room when the sensing bulb temperature reaches 33°F . Heat tracing circuits are overdesigned by 10 to 25 percent in order to ensure adequate heat input.

A design review of Sequoyah and Watts Bar Nuclear Plants has revealed that the following lines were lacking heat tracing.

- (1) The sensing lines off the feedwater flow elements
- (2) The full flow test line from the containment spray pumps where it joins the refueling water storage tank

Design changes have been initiated to add heat tracing to these lines. The work for Sequoyah unit 1 will be completed before one percent power operation.

In order to ensure that freeze protection temperature sensors sense the lowest possible temperature, TVA will review all safety-related systems that require freeze protection to determine if the point sensed is representative of the lowest temperature. If necessary, sensors will be relocated according to the guidelines of the proposed IEEE document, "Recommended Practice for the Design and Installation of Electric Pipe Heating Systems for Nuclear Power Generating Stations." This review and any necessary changes will be completed before January 1, 1980.

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