



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379-2000

Robert A. Fenech  
Vice President, Sequoyah Nuclear Plant

March 4, 1993

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

SEQUOYAH NUCLEAR PLANT (SQN) - NRC BULLETIN 90-01, SUPPLEMENT 1 - LOSS OF  
FILL-OIL IN TRANSMITTERS MANUFACTURED BY ROSEMOUNT

- References:
1. TVA letter to NRC dated December 4, 1992, "Sequoyah Nuclear Plant (SQN) - NRC Bulletin 90-01 - Loss of Fill-Oil in Transmitters Manufactured by Rosemount - Updated Response"
  2. TVA letter to NRC dated July 13, 1990, "Sequoyah Nuclear Plant (SQN) - NRC Bulletin 90-01 - Loss of Fill-Oil in Transmitters Manufactured by Rosemount"

This letter provides TVA's response to the subject bulletin supplement. Reference 2 provided TVA's initial response to the original bulletin. In that response, TVA listed ten transmitters that are installed in safety systems at SQN. TVA committed to replace one transmitter and create a trending program for the remaining nine. As Rosemount continued to update the master suspect list, SQN identified four additional transmitters within the original list (Reference 2) as being in the suspect category. This information was transmitted in Reference 1.

The attached enclosure provides a detailed response to each action requested by the supplement to the bulletin.

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Please direct questions concerning this issue to W. C. Ludwig at  
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Sincerely,



Robert A. Fenech

Enclosure

cc (Enclosure):

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Enclosure

Sequoyah Nuclear Plant (SQN) Units 1 and 2 presently have a combined total of nine pre-1989 Model 1153, Series D Rosemount transmitters installed in safety systems (one of the original transmitters was replaced during the Unit 1 Cycle 5 refueling outage). The following is a direct response to each reporting requirement and a requested action from NRC Bulletin 90-01, Supplement 1, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount."

Reporting Requirements:

"Provide within 60 days after receipt of this bulletin, a response that includes the following:

- "1. A statement whether the licensee will take the actions requested above."

Response:

It is TVA's intent to take appropriate actions as delineated in the subject bulletin supplement. The following is a list of transmitters installed in the auxiliary feedwater system (AFW) and containment spray (CS) system. The AFW system and the CS system numbers are 3 and 72 respectively.

<u>ITEM</u>	<u>UNIT ID NO.</u>	<u>MODEL NO.</u>	<u>SERIAL NO.</u>	<u>FSAR FIGURE NO. AND COORDINATE</u>
1	1-FT-3-142	1153DB5PB	405348	10.4.7-7 (G-9)
2	2-FT-3-142	1153DB5PB	405349	10.4.7-7 (G-9)
3	1-FT-3-147	1153DB5PB	405448	10.4.7-7 (H-7)
4	1-FT-3-155	1153DB5PB	405452	10.4.7-7 (F-7)
5	1-FT-3-163	1153DB5PB	405568	10.4.7-7 (D-7)
6	1-FT-72-13	1153DB4PB	405344	6.2.2-3 (D-8)
7	1-FT-72-34	1153DB4PB	405345	6.2.2-3 (H-8)
8	2-FT-72-13	1153DB4PB	405343	6.2.2-3 (D-8)
9	2-FT-72-34	1153DB4PB	405346	6.2.2-3 (H-8)

The following discussion pertains to the actions listed:

- 1.a. SQN has no Rosemount Model 1153, Series D transmitters installed in a system with a normal operating pressure greater than 1500 pounds per square inch (psi) and that are installed in reactor protection trip systems, engineered safety feature (ESF) actuation systems, or anticipated transient without scram (ATWS) systems. Therefore, no action is required.
- 1.b. SQN has no Rosemount Model 1153, Series D transmitters installed in safety-related application with system-operating pressure greater

than 1500 psi but are not installed in reactor protection trip systems, ESF actuation system, or ATWS system. Therefore, no action is required.

- 1.c. SQN has no Rosemount Model 1153, Series D transmitters installed in systems with normal operating pressure of greater than 500 psi and less than or equal to 1500 psi and that are installed in reactor protection trip system, ESF actuation systems, or ATWS systems. Therefore, no action is required.
  - 1.d. Items 1 through 5 in the above listing are Rosemount Model 1153, Series D transmitters that are installed in the AFW system. Item 5 will be subjected to elevated static pressure during normal plant operation. The transmitters associated with Items 1 through 4 will only sense operating pressures during pump operation as they are isolated from the feedwater system by two series check valves. The AFW system is normally operated during plant start-up and shutdown and for unpredicted unit trips and safety injection. Response 4c of Reference 2 provides a description of the failure consequences for each of these transmitters. Based upon this, TVA has elected to continue trending calibration data each refueling outage. If the transmitter is replaced with a newly manufactured unit, it will be deleted from the trending program.
  - 1.e. Item 5 is the only transmitter installed that can be classified in this category. As described in 1.d., TVA will continue to trend this transmitter even though calculations indicate that it has exceeded the threshold criterion of psi per month below which failures have been shown to occur. Although not required by Supplement 1 to this bulletin, TVA is currently continuing to monitor these transmitters under our previously established program.
  - 1.f. Items 6 through 9 are transmitters located in the CS system. The normal system operating pressure is less than 500 psi. This system is only operated during the quarterly flow surveillance tests and during the operability test every refueling outage. Although not required by Supplement 1 to this bulletin, TVA is currently continuing to monitor these transmitters under our previously established program.
- "2. Evaluate the enhanced surveillance monitoring program to ensure that the program provides measurement data with an accuracy range consistent with that needed for comparison with manufacturer drift data criteria for determining degradation caused by a loss of fill-oil."

Response:

In Reference 2, TVA established a monitoring program with the September 1985 calibration data as the baseline. Each set of recalibration data is then compared with this baseline, and the deviation from this baseline is used to determine the drifts.