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November 26, 1984
RBG-19523
File Nos. G9.5, G9.25.1.1

Mr. Robert D. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV, Office of Inspection and Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Dear Mr. Martin:

River Bend Station Unit 1
Docket No. 50-458
Final Report/DR-250

On October 26, 1984, GSU notified Region IV by telephone that it had determined DR-250 to be reportable under 10CFR50.55(e). This deficiency concerns thread leakage in Rosemount, Incorporated, 1153 series pressure transmitters. The attachment to this letter is GSU's final 30-day writted report pursuant to 10CFR50.55(e)(3) with regard to this deficiency.

Sincerely,

William J. Booker

for J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/PJD/jp

Attachment

cc: Director of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC Resident Inspector-Site

INPO

IE27

ATTACHMENT

November 26, 1984
RBG-19523

DR-250/Thread Leakage in
Rosemount, Incroporated, 1153 Series
Pressure Transmitters

Background and Description of the Problem

This problem concerns thread leakage in Rosemount, Incorporated, 1153 series pressure transmitters. Rosemount notified the NRC pursuant to 10CFR21 of a potential leakage problem with Model 1153 Series B pressure transmitters manufactured after January 10, 1984, and subsequently notified Stone & Webster Engineering Corporation in a letter dated September 10, 1984. Rosemount conducts periodic quality audits. As part of these audits, Rosemount performs an electronic housing pressure integrity test. During a recent audit, a leak was detected on 2 of the 12 units tested. Based on this, an additional 87 units were tested, 8 of which also leaked. Rosemount found that a leak path existed between the threads connecting the sensor module and the electronic housing. This leak path would allow moisture to enter the electronic housing during abnormal operating conditions. Moisture intrusion caused the transmitter to stop functioning. Rosemount has determined that the problem was caused by improper curing of the thread sealant (Neolube 100) used by Rosemount.

Safety Implication

Twenty-six transmitters which were ordered after January 10, 1984, are in the LSV, RHS, ISC, HVR, and SWP systems. Loss of the LSV transmitters will result in the inability to monitor the pressure of the main air supply headers from the 1LSV*C3A and B air compressors. Loss of these transmitters would render the LSV system inoperable.

The loss of the SWP transmitters will result in the inability to measure the standby cooling tower water level and to monitor the pressure in the accumulator tanks used to mitigate the containment SWP column separation effect. Loss of the SWP transmitters would rendor these two functions inoperable.

The loss of the RHS and ISC transmitters will result in the inability to measure the flow, pressure, and level measurements associated with the remote shutdown system rendering part of RSS inoperable.

The loss of the HVR transmitters will result in the inability to measure the differential pressure between the annulus and the containment rendering containment unit coolers and several MOVS inoperable.

Corrective Action

Rosemount has developed a new procedure that will ensure proper curing of the Neolube 100 thread sealant and has tested this procedure to show that it eliminates the problem. Nonconformance and Disposition Report No. 8053 has been issued to implement Rosemount's recommended corrective action for the transmitters affected at River Bend Station.