



April 25, 2016

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Potential Part 21 on Wyle Laboratories Test Report Nos. 45700-1 Rev. A dated November 21, 1988 and 45700-2 Rev. A dated November 21, 1988, Submergence Test of Gems Liquid Level Transmitter

Pursuant to the requirements of 10 CFR Part 21, this letter notifies the NRC of a potential Part 21 condition. Wyle Laboratories Test Report Nos. 45700-1 Rev. A and 45700-2 Rev. A qualify Gems Liquid Level Transmitters for use in safety-related applications in nuclear power plants. The qualification plan for the program specified the flex conduit free end would connect to the chamber wall as shown in attached Figure 8 and thus protect the cabling from the accident environment during the Design Basis Event (DBE) Accident (LOCA/MSLB) Simulation. As documented in the test reports, Gems Transmitter specimens were submerged by filling the Wyle chamber with chemical spray solution to a height above the J-box on the top of the Transmitters, but below the flex conduit end left open to the LOCA/MSLB simulation. The flex conduit (hydraulic hose) was left disconnected from the chamber wall, and the wires were exposed to the DBE conditions to provide qualification to the worst-case mounting configuration. However, leaving the flex conduit open to the LOCA/MSLB Simulation allowed the pressure that was then applied using gaseous nitrogen (GN₂) to simulate submergence of the transmitters to 15-16 feet to equalize internally and externally at the top of the J-box. The unintended result is that a submergence depth of 15-16 feet was not simulated externally to the J-box. The submergence test duration was 30 minutes.

NTS Huntsville (formerly Wyle Laboratories) does not have the capability to identify the facilities within the United States that rely on the subject reports for submergence qualification of Gems Liquid Level Transmitter as we are not aware of their installed locations. NTS will inform the purchaser of the testing service (now Gems Sensors, Inc.) within the next five working days.

If you have any questions, please contact NTS' Senior Director of Nuclear Engineering and Test Services, Tom Brewington at (256) 716-4512 or email at tom.brewington@nts.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Megan Toomey", with a horizontal line extending to the right.

Megan Toomey
Sr. Contracts Manager
NTS Huntsville

enclosure

IEZO
NRR

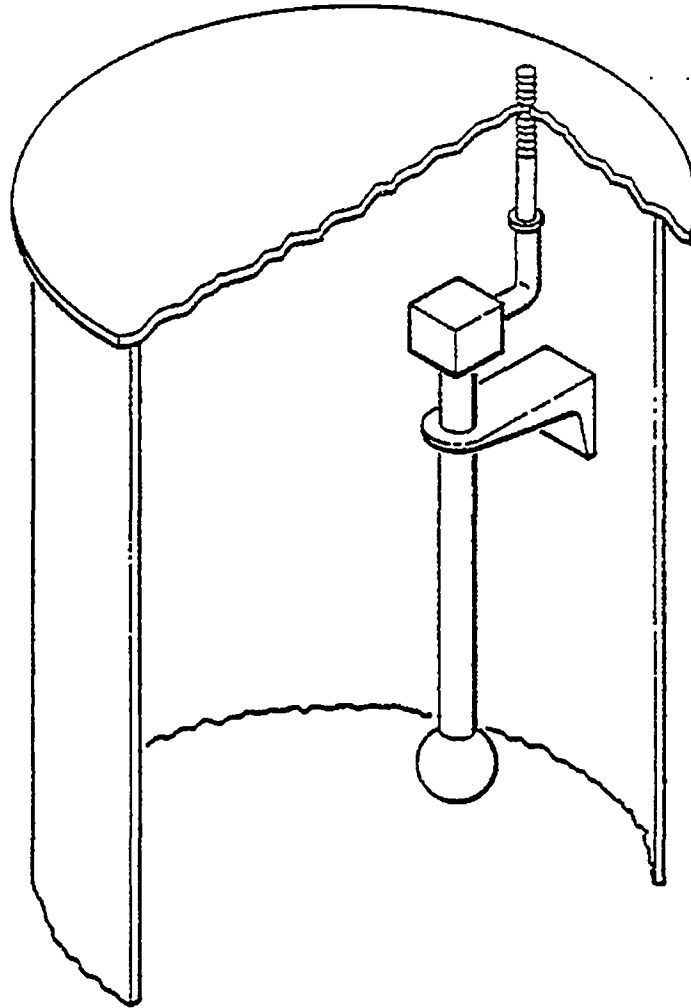


FIGURE 8. TYPICAL LOCA/MSLB SIMULATION TEST SETUP