



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

October 14, 1994

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control

Subject: Additional Information Regarding Braidwood Station's
Response to Bulletin 90-01, Supplement 1.

Braidwood Units 1 and 2
NRC Docket Numbers 50-456 and 50-457

- Reference:
- 1) Teleconference between Commonwealth Edison Company and the Nuclear Regulatory Commission dated October 6, 1994, concerning Rosemount Transmitters
 - 2) D. Chrzanowski letter to T. Murley transmitting Braidwood Station response to Bulletin 90-01 Supplement 1, dated March 5, 1993
 - 3) NRC Bulletin 90-01 Supplement 1, "Loss of Fill Oil in Transmitters Manufactured by Rosemount," dated December 22, 1992

In Reference 2 letter Commonwealth Edison Company (ComEd) provided response to NRC Bulletin 90-01, Supplement 1, "Loss of Fill Oil in Transmitters Manufactured by Rosemount." On October 6, 1994, the reference teleconference was held to clarify information that was transmitted in Reference 2. The following documents the discussion.

The 8 non mature transmitters mentioned in action 1C of Reference Letter 2, have not reached maturity. Specifically Unit 1 transmitters have accumulated approximately 38,000 psi months and Unit 2 has accumulated approximately 41,400 psi months. As stated in the reference response, these transmitters will continue to be monitored by the enhanced surveillance monitoring program.

Regarding Action 1F of Reference letter 2, Braidwood Station maintains a high degree of confidence for detecting failure of these transmitters caused by a loss of fill oil through the following process. The transmitters are calibrated every 18 months, their performance data is tracked and trended by the enhance monitoring program. The performance is continually compared to other mainsteam line transmitters. When performance of a transmitter is suspect, a work request is written, and troubleshooting is performed

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to determine the cause. Depending on the results, the transmitter is either replaced or repaired. If a transmitter is suspect due to loss of fill then it is replaced.

With regards to the enhance monitoring program and how it relates to Rosemount Technical Bulletin 4 acceptance criteria the following discussion occurred: Zero drift trending is recommended as one element of an enhanced monitoring program for Rosemount transmitters within the scope of NRC Bulletin 90-01. The zero drift trend software is based upon guidance provided in Rosemount Technical Bulletin #4 Appendix A. As found/as left calibration data is used to calculate transmitter zero drift as a percentage of nominal previous calculation results. The cumulative zero drift is then summed to previous calculation results. The cumulative zero drift is plotted over time and monitored for a positive or negative trend. When a trend occurs, comparison to limits developed by Rosemount is performed. The comparison determines if: 1) a limit is exceeded; or, 2) a time estimate to the limit is calculated based upon the most recent data slope (rate) or slope (rate) provided through a linear least squares straight line fit of the data. The limit is calculated based upon the most recent data slope (rate).

Operability acceptance criteria given in Rosemount Technical Bulletin #4, Table A1 will be the basis for the operability acceptance criteria utilized at Braidwood Station. The following program was implemented:

If the zero drift trending software predicts no trend and review of the cumulative drift/time plot is in agreement, then no action is required.

If the zero drift trending software provides an estimated date to the limit for a transmitter and review of the drift/time plot is in agreement, then:

- if a calibration is scheduled, (i.e. normal surveillance) for the transmitter before the estimated date, then no action is required.
- if no calibration is scheduled for the transmitter before the estimated date, then a calibration is to be scheduled and performed prior to reaching the estimated date.

If the zero drift trending software determines that a transmitter has exceeded a limit and review of the drift/time plot is in agreement, then a calibration of the transmitter is to be performed within two weeks of the plot review. Investigation of possible causes of the drift should also begin. Leaking instrument valves, loose electrical connections, loose fittings, sensing line blockage, out of tolerance test instruments, and initial transmitter "wear-in" may be possible causes of drift.

If the investigation can determine no attributable cause for the zero drift, then a final calibration of the transmitter should be performed three months after the above two week calibration. When the trend of zero drift is found to continue the operability of the transmitter is the question and suspected of having a loss of fill-fluid condition. The appropriate technical specification/operational requirement must be addressed at this time. Immediate replacement may not be required if a transmitter is not technical specification related.

Lastly, the Staff queried Braidwood with regards as what actions did Braidwood take to disposition the Rosemount Transmitters (with a serial number 500,000 or less) in the storeroom; and, how does Braidwood ensure that new transmitters that enter the storeroom have a serial number greater than 500,000? ComEd responded that at the time of the Bulletin 90-01, Braidwood determined that there were 10 transmitters with a serial under 500,000. These transmitters were shipped offsite on September 1990 to Rosemount for refurbishing. Since that time Braidwood has not purchased any additional transmitters.

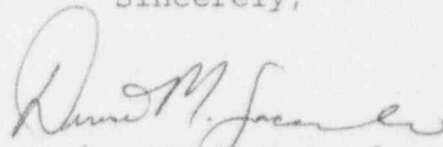
ComEd believes that the normal Quality Assurance requirements that are imposed on our safety related procurement would preclude the occurrence of receipt of the suspect lot. These requirements include the imposition of an approved quality program, the requirement on the supplier to comply 10 CFR 21 and mandatory receipt inspection when the parts are on site. This mandatory receipt inspection will verify that these parts came from a supplier with a ComEd accepted program.

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To further help ensure that new transmitters that enter the storeroom are of the desired serial numbers, a statement was added to the procurement specification in the computerized inventory record. This statement alerts potential purchaser not to buy transmitters with a serial number of 500,000 or below unless they have been refurbished.

If you have any questions or comments concerning this correspondence please contact this office.

Sincerely,



Denise M. Saccomando
Nuclear Licensing Administrator

cc: R. Assa, Braidwood Project Manager-NRR
S. Dupont, Senior Resident Inspector-Braidwood
J. Martin, Regional Administrator-RIII
Office of Nuclear Facility Safety-IDNS