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1400 Opus Place  
Downers Grove, Illinois 60515

March 5, 1993

Dr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Document Control Desk

Subject: Response to NRC Bulletin 90-01 Supplement 1

Quad Cities Station Units 1 and 2,  
(NRC Dockets 50-254 and 50-265)

Reference: NRC Bulletin 90-01 Supplement 1, "Loss of Fill Oil  
in Transmitters Manufactured by Rosemount," dated  
December 22, 1992.

Dear Dr. Murley:

The purpose of this letter is to provide the Quad Cities Station response to the requested actions of Bulletin 90-01 Supplement 1. The details of the Quad Cities response are contained in Attachment 1 and a tabular summary is provided in Attachment 2.

Quad Cities has a total of eighteen (18) transmitters within the scope of the referenced Bulletin; however, no enhanced monitoring more frequently than a refueling cycle will be required. This determination is based on transmitter maturity, operating pressure and Bulletin categorization.

Consistent with the Bulletin's reporting requirements, Quad Cities Station has reviewed the requested actions and agrees to comply with all applicable actions. Specifically, Quad Cities will:

replace the one (1) category 1.c transmitter during the current Q2R12 refuel outage (Spring '93); and

maintain an enhanced surveillance program, at a refueling outage frequency, for the four (4) transmitters in Bulletin category 1.d until these transmitters are replaced or reach maturity.

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March 5, 1993

These actions satisfy completely the recommendations of the Supplement and no additional actions or justifications are required. Prior to the end of the Unit 2 outage, CECo will provide a written confirmation that the one (1), non-mature, RPS/ESF Rosemount transmitter has been replaced.

To the best of my knowledge and belief, the statements contained in this document are true and correct. In some respects these statements are not based on my personal knowledge, but on information furnished by other CECo employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

If there are any questions or comments, please contact me.

Sincerely,

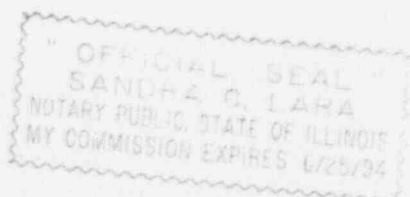


David J. Chrzanowski  
Generic Issues Administrator  
Nuclear Regulatory Services

Attachments: Attachment 1 - Response to NRCB 90-01 S1 Actions  
Attachment 2 - Tabular Summary of Transmitter Status

cc: Regional Administrator-RIII  
C. Patel, Quad Cities Project Manager-NRR/PDIII-2  
T. Taylor, Senior Resident Inspector (Quad Cities)

State of Ill., County of Wayne  
Signed before me on this 5th day  
of March, 1993  
Notary Public [Signature]



## Attachment 1

### Quad Cities Response to NRCB 90-01 S1 Requested Actions

#### Requested Actions

1. Review Plant records and identify any Rosemount Model 1153 Series B, Model 1153 Series D, and model 1154 transmitters manufactured before July 11, 1989, that are use or may be used in the future in either safety-related systems or systems installed in accordance with 10 CFR 50.62 (the ATWS rule).

**Quad Cities has completed this review and has determined that a total of eighteen (18) affected Rosemount Transmitters are installed in the described systems.**

- a. Expeditiously replace, or monitor for the life of the transmitter on a monthly basis using an enhanced surveillance monitoring program, any transmitters that have a normal operating pressure greater than 1500 psi and that are installed in reactor protection trip systems, ESF actuation systems or ATWS systems.

Action for those transmitters that have not met the Rosemount psi-month threshold criterion should be expedited.

**Quad Cities does not have any transmitters in this category.**

At their discretion, licensees may monitor using an enhanced surveillance program at least once every refueling cycle, but not exceeding 24 months, transmitters in this category if the appropriate psi-month threshold criterion recommended by Rosemount has been reached, and the monitoring interval is justified based upon transmitter performance in service and its specific safety function.

**Quad Cities does not have any transmitters in this category.**

- b. Replace, or monitor for the life of the transmitter on a quarterly basis using an enhanced surveillance monitoring program, any transmitters that have a normal operating pressure greater than 1500 psi and that are used in safety-related applications but are not installed in reactor protection trip systems, ESF actuation systems, or ATWS systems.

**Quad Cities does not have any transmitters in this category.**

At their discretion, licensees may monitor using an enhanced surveillance program at least once every refueling cycle, but not exceeding 24 months, transmitters in this category if the appropriate psi-month threshold criterion recommended by Rosemount has been reached, and the monitoring interval is justified based upon transmitter performance in service and its specific function.

**Quad Cities does not have any transmitters in this category.**

## Attachment 1

### Quad Cities Response to NRCB 90-01 S1 Requested Actions

- c. [For BWRs] Replace, or monitor on a monthly basis using an enhanced surveillance monitoring program, until the transmitter reaches the appropriate psi-month threshold criterion recommended by Rosemount, any transmitters that have a normal operating pressure greater than 500 psi and less than or equal to 1500 psi, that are installed in reactor protection trip systems, ESF actuation systems or ATWS systems.

**Quad Cities has one (1) transmitter in this category; however since it does not initiate reactor protection or ATWS trips it is considered in the following subcategory.**

On a case-by-case basis except for transmitters that initiate reactor protection or ATWS trips for high pressure or low water level, licensees may monitor using an enhanced surveillance program at least once every refueling cycle, but not exceeding 24 months, if sufficient justification is provided based upon transmitter performance in service and its specific safety function.

**Quad Cities has one (1) transmitter mentioned above, in this category; however, this transmitter will be replaced when Unit 2 enters its refueling outage on March 6, 1993. Therefore no enhanced monitoring is required. Also, Quad Cities has six (6) mature transmitters in this category. The Quad Cities program will maintain confidence that failures can be detected.**

- c. [For PWRs] Replace, or monitor at least once every refueling cycle, but not exceeding 24 months, using an enhanced surveillance program until the transmitter reaches the appropriate psi-month threshold criterion recommended by Rosemount, any transmitters that have a normal operating pressure greater than 500 psi and less than or equal to 1500 psi and that are installed in reactor protection trip systems, ESF actuation systems, or ATWS systems.

**The PWR requirements are not applicable to Quad Cities Station.**

- d. Replace, or monitor at least once every refueling cycle, but not exceeding 24 months, using an enhanced surveillance monitoring program until the transmitter reaches the appropriate psi-month threshold criterion recommended by Rosemount, any transmitters used in safety-related systems that have a normal operating pressure greater than 500 psi and less than or equal to 1500 psi, and that are not installed in reactor protection trip systems, ESF actuation systems, or ATWS systems.

**Quad Cities has four (4) transmitters in this category. These transmitters will be monitored until replacement.**

## Attachment 1

### Quad Cities Response to NRCB 90-01 S1 Requested Actions

- e. At licensee discretion, exclude from the enhanced surveillance program any transmitters that have a normal operating pressure greater than 500 psi and less than or equal to 1500 psi that have reached the appropriate psi-month threshold criterion recommended by Rosemount (60,000 psi-months or 130,000 psi-months depending on the range code of the transmitter).

A high degree of confidence should be maintained for detecting failure of these transmitters caused by a loss of fill-oil and a high degree of reliability should be maintained for the function consistent with its safety significance.

**Quad Cities does not have any transmitters in this category.**

- f. At licensee discretion, exclude from the enhanced surveillance program any transmitters that have a normal operating pressure less than or equal to 500 psi. A high degree of confidence should be maintained for detecting failure of these transmitters caused by a loss of fill-oil and a high degree of reliability should be maintained for the function consistent with its safety significance.

**Quad Cities has seven (7) transmitters in this category. The Quad Cities program will maintain confidence that failures can be detected.**

- 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.

**Quad Cities has an enhanced surveillance program that monitors, with required accuracy, the parameters indicative of a loss of fill oil condition.**

## Attachment 2

## Summary of Transmitter Status for Quad Cities

Bulletin Category	Transmitter Pressure/Function	Maturity	Frequency of Enhanced Surveillance	Discussion/Comments
1.a	Normal Operating Pressure >1500 psi and transmitter is installed in RPS, ESF or ATWS systems	Not Mature, < 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
		Mature, > 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
1.b	Normal Operating Pressure >1500 psi. Transmitter is safety related but is <u>not</u> installed in RPS, ESF or ATWS systems	Not Mature, < 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
		Mature, > 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
1.c (BWR)	Operating pressure from 500 to 1500 psi and transmitter is in RPS, ESF or ATWS systems	Not Mature, < 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
			Refueling Outage	Quad Cities has 1 transmitter in this category
		Mature, > 60,000 psi*months	Discretionary	Quad Cities has 6 transmitters in this category
1.c (PWR)	Operating pressure from 500 to 1500 psi and transmitter is in RPS, ESF or ATWS systems	Not Mature, < 60,000 psi*months	N/A	Not applicable to Quad
		Mature, > 60,000 psi*months	N/A	Not applicable to Quad
1.d	Operating pressure from 500 to 1500 psi and transmitter is <u>not</u> in RPS, ESF or ATWS systems but is safety related	Not Mature, < 60,000 psi*months	Refueling Outage	Quad Cities has 4 transmitters in this category
1.e	Operating pressure from 500 to 1500 psi	Mature, > 60,000 psi*months	N/A	Quad Cities does not have any transmitters in this category
1.f	Operating pressure less than or equal to 500 psi	N/A	Exempt	Quad Cities has 7 transmitters in this category
2	Quad Cities has an enhanced surveillance monitoring program that provides measurement data with an accuracy range consistent for determining degradation caused by loss of fill oil.			