



July 22, 1994  
JPN-94-035

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Subject: James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333  
**Response to Request for Additional Information,  
NRC Bulletin 90-01, Supplement 1,  
"Loss of Fill-Oil in Rosemount Transmitters"**

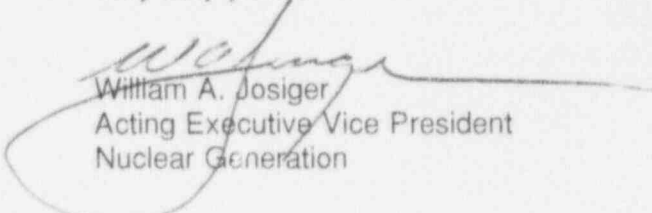
- References:
1. NRC letter, J. E. Menning to W. A. Josiger, dated May 20, 1994, "Request for Additional Information - Response to NRC Bulletin 90-01, Supplement 1, 'Loss of Fill-Oil in Rosemount Transmitters,' for the James A. FitzPatrick Nuclear Power Plant (TAC No. M85389)."
  2. NYPA letter, R. E. Beedle to NRC, "Response to NRC Bulletin No. 90-01, Supplement 1, Loss of Fill-Oil in Transmitters Manufactured by Rosemount," (JPN-93-010), dated March 5, 1993.

Dear Sir:

This letter provides the Authority's response to the NRC's request for additional information (Reference 1) regarding the enhanced surveillance program for Rosemount transmitters. The requested information concerns the actions taken by the Authority, as described in Reference 2, to resolve issues associated with loss of fill-oil in these transmitters. The NRC's questions followed by the Authority's responses are contained in Attachment I to this letter. Attachment II summarizes the Authority's new commitments concerning these transmitters.

If you have any questions, please contact J. A. Gray, Jr.

Very truly yours,

  
William A. Josiger  
Acting Executive Vice President  
Nuclear Generation

cc: See next page

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Mr. John E. Menning  
Project Directorate I-1  
Division of Reactor Projects - I/II  
U.S. Nuclear Regulatory Commission  
Mail Stop 14 B2  
Washington, DC 20555

**Attachment I to JPN-94-035  
Response to Request for Additional Information,  
NRC Bulletin 90-01, Supplement 1,  
"Loss of Fill-Oil in Rosemount Transmitters"**

NRC Question 1

The Power Authority of the State of New York's (PASNY's) response dated March 5, 1993, stated that the once per operating cycle calibration drift monitoring program will continue for at least the next two operating cycles for those Rosemount transmitters exposed to normal operating pressures below 500 psig and for those that have reached the maturity (psi-month) threshold criterion. How will PASNY maintain a high degree of confidence in the performance of these transmitters beyond this monitoring period as requested in Items 1.e and 1.f of the bulletin supplement?

Response

The FitzPatrick plant had established two monitoring programs prior to the implementation of the enhanced surveillance program required by NRC Bulletin 90-01, Supplement 1, which are effective in detecting Rosemount transmitters with loss of fill-oil. These programs ensure that a high degree of confidence is maintained for detecting transmitters with loss of fill-oil.

The first program compares the once per operating cycle "as-found" to the previous "as-left" calibration data to determine drift. The results are evaluated for indication of loss of fill-oil. The second program monitors transmitter output during plant operations. Once a week, output data is collected, processed and compared by a computer program to screen for loss of fill-oil. Output deviations greater than two standard deviations from the mean are subject to further investigation. Since the data is processed weekly, drift trends are quickly identified and addressed.

These two programs will continue for transmitters exposed to operating pressures below 500 psig, until it is demonstrated that failures are not time dependent or the susceptible transmitters are replaced with non-susceptible units. Mature units will be monitored by both programs for two more operating cycles, then the monitoring will be reduced to the operation data monitoring program only. This approach will provide a high degree of confidence for detecting future loss of fill-oil failures in mature Rosemount transmitters and those exposed to normal operating pressures of less than 500 psig.

NRC Question 2

Does the enhanced surveillance monitoring program described in Attachment 2 of PASNY's response meet the accuracy requirements of Rosemount Technical Bulletin No. 4?

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Response to Request for Additional Information,  
NRC Bulletin 90-01, Supplement 1,  
"Loss of Fill-Oil in Rosemount Transmitters"**

Response

The FitzPatrick plant enhanced surveillance monitoring program for Rosemount transmitters is consistent with the recommendations provided by Rosemount in Technical Bulletin No. 4. This bulletin describes diagnostic guidelines to be used to detect loss of fill-oil in Rosemount transmitters, including details for performing response time testing and drift monitoring. However, it does not contain any accuracy requirements for response time testing or calibration. Rather, it notes that field data must have sufficient accuracy to resolve sustained drift rates.

FitzPatrick uses high precision measurement and test equipment to calibrate the Rosemount transmitters, and field data can be determined up to three decimal places. This permits an accurate comparison to Rosemount's threshold values, specified in Rosemount Bulletin No. 4, which are used, in part, to identify transmitters which may be experiencing a loss of fill-oil.

NRC Question 3

Have the 22 transmitters that required an additional 12 days of exposure to normal operating pressure to reach the 60,000 psi-month maturity threshold reached this threshold at this time?

Response

The twelve additional days of exposure was based upon the March 5, 1993 date of the Authority's response to NRC Bulletin (Reference 1). Data compiled on September 30, 1993, indicated that the twenty-two transmitters had already matured to beyond 65,000 psi-month. Since that time these transmitters have been exposed to seven additional months at normal operating pressure resulting in a greater maturity for these transmitters.

**Attachment I to JPN-94-035**  
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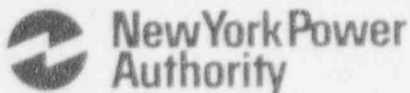
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**Attachment II to JPN-94-035**  
**Response to Request for Additional Information,**  
**NRC Bulletin 90-01, Supplement 1,**  
**"Loss of Fill-Oil in Rosemount Transmitters"**

Commitment Number	Commitment	Due Date
JPN-94-035-1	<p><b>JAF I&amp;C:</b></p> <p>The calibration drift and weekly operation data monitoring programs will continue for transmitters exposed to operating pressures below 500 psig, until it is demonstrated that failures are not time dependent or the susceptible transmitters are replaced with non-susceptible units. Mature units will be monitored by both programs for two more operating cycles, then the monitoring will be reduced to the operation data monitoring program.</p>	TBD

**New York Power Authority**

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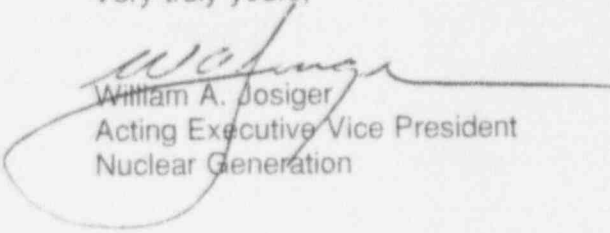
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NRC Question 2

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New York Power Authority

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