



Northern States Power Company

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Minneapolis, Minnesota 55401
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March 1, 1993

NRC Bulletin 90-01
Supplement 1

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Response to NRC Bulletin No. 90-01 Supplement 1
Loss of Fill-Oil In Transmitters Manufactured By Rosemount

The following information is provided in response to the reporting requirements contained in NRC Bulletin 90-01, Supplement 1, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount."

Reporting Requirement No. 1 states:

[Provide within 60 days] a statement whether the licensee will take the actions requested [by NRC Bulletin 90-01, Supplement 1].

Response

The actions requested by NRC Bulletin 90-01, Supplement 1, that are applicable to the Rosemount transmitters located at the Monticello Nuclear Generating Plant, have been completed.

Reporting Requirement No. 2 states:

With regard to the action requested above that the licensee is taking [provide]:

- a. A list of the specific actions that the licensee will complete to meet Item 1 of Requested Actions for Operating Reactors provided in [NRC Bulletin 90-01, Supplement 1.]
- b. The schedule for completing licensee action to meet Item 1 of Requested Action provided in [NRC Bulletin 90-01, Supplement 1.]
- c. When completed, a statement confirming that Items 1 and 2 of requested Actions for Operating Reactors provided in [NRC Bulletin 90-01, Supplement 1] have been completed.

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Response

- a. Details of specific actions taken are contained in Attachment 2.
- b. Actions to meet Item 1 of the Requested Actions have been completed as applicable.
- c. Actions to meet Item 1 and 2 of the Requested Actions have been completed as applicable.

Reporting Requirement No. 3 states:

[Provide] a statement identifying those actions requested by the NRC that the licensee is not taking and an evaluation which provides the bases for not taking the requested actions.

Response

All applicable actions requested by the NRC have been completed. See Attachment 2 for additional detail.

With this response we are making the following new commitment:

We will control spare Rosemount Model 1153 Series B transmitters that were manufactured prior to July 11, 1989 and have not been refurbished to prevent their use in safety-related applications of 500 psi or more.

Please contact Mary Engen at (612) 295-1291 if you have any question related to the information we have provided.



Thomas M Parker
Director
Nuclear Licensing

- c: Regional Administrator - III, NRC
NRR Project Manager, NRC
Sr Resident Inspector, NRC
State of Minnesota
Attn: Kris Sanda
J Silberg

Attachments:

- 1) Affidavit
- 2) Monticello Response to Requested Actions for Operating Reactors

ATTACHMENT 1

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

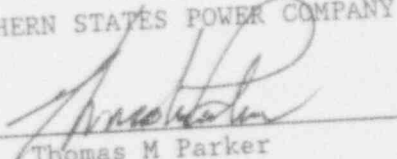
LOSS OF FILL-OIL IN TRANSMITTERS
MANUFACTURED BY ROSEMOUNT

Northern States Power Company, a Minnesota corporation, with this letter is submitting information requested by NRC Bulletin 90-01, Supplement 1.

This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

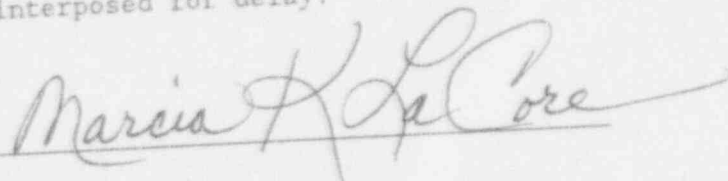
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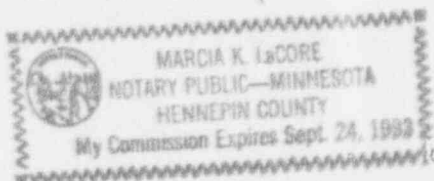

Thomas M Parker

Director

Nuclear Licensing

On this 1st day of March 1993 before me a notary public in and for said County, personally appeared Thomas M Parker, Director Nuclear Licensing, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.





ATTACHMENT 1

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

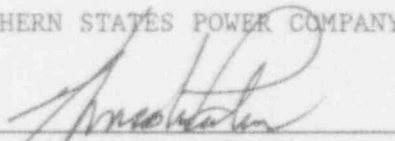
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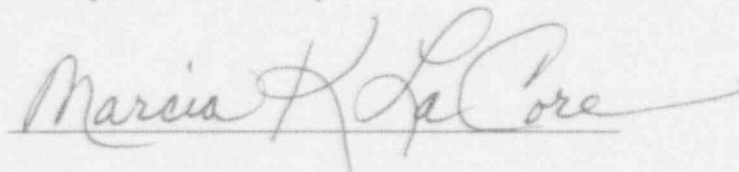
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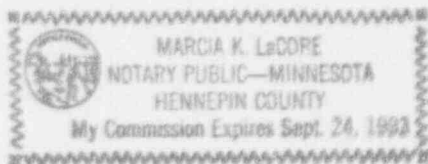
NORTHERN STATES POWER COMPANY

By


Thomas M Parker
Director
Nuclear Licensing

On this 1st day of March 1993 before me a notary public in and for said County, personally appeared Thomas M Parker, Director Nuclear Licensing, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.





ATTACHMENT 2

Monticello Response to Requested Actions for Operating Reactors

Requested Action No. 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 used 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), and

- 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. At their discretion, licenses 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. The justification should show that a sufficiently high level of reliability for the function is provided by the redundancy or diversity of applicable instrumentation and control systems, commensurate with the importance of the function, when considered in conjunction with the overall performance of the reactor protection trip system, ESF actuation systems, or ATWS system. Provide to the NRC a copy of the licensee justification to extend the enhanced surveillance program beyond the monthly test interval for transmitters that have reached the appropriate psi-month threshold criterion recommended by Rosemount.
- 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. 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. Provide to the NRC a copy of the licensee justification to extend the enhanced surveillance program beyond the quarterly test interval for transmitters that have reached the appropriate psi-month threshold criterion recommended by Rosemount.

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- 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. 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. The justification should show that a sufficiently high level of reliability for the function is provided by the redundancy or diversity of applicable instrumentation and control systems, commensurate with the importance of the function, when considered in conjunction with the overall performance of the reactor protection trip system, ESF actuation systems, or ATWS system. Provide to the NRC a copy of the licensee justification to extend the enhanced surveillance program beyond the monthly test interval.

[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.

- 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.
- 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

Monticello Response to Requested Actions for Operating Reactors

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.

- 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.

Response

- a. This item is not applicable. The Monticello Nuclear Generating Plant has no Rosemount Model 1154 transmitters installed and has no Model 1153, Series B, or Model 1153, Series D transmitters installed in applications with a normal operating pressure greater than 1500 psi.
- b. This item is not applicable. The Monticello Nuclear Generating Plant has no Rosemount Model 1154 transmitters installed and has no Model 1153 Series B, or Model 1153 Series D transmitters installed in applications with a normal operating pressure greater than 1500 psi.
- c. [For BWRs] The Monticello Nuclear Generating Plant has no Rosemount Model 1153 Series B, Model 1153 Series D or Model 1154 transmitters installed in the ATWS system. Rosemount Model 1153 Series B transmitters are installed in the reactor protection trip system and ESF systems and are subject to normal operating pressures greater than 500 psi but less than or equal to 1500 psi. These transmitters have either had the sensing modules replaced by Rosemount with new modules manufactured after July 11 1989 or have reached the psi-month threshold criterion recommended by Rosemount and thus will be excluded from an enhanced surveillance program.
- d. Rosemount Model 1153 Series B transmitters are installed in safety related systems that have normal operating pressures greater than 500 psi but less than or equal to 1500 psi. These transmitters have reached the psi-month threshold criterion recommended by

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Rosemount and thus will be excluded from an enhanced surveillance program.

- e. Rosemount Model 1153 Series B transmitters are installed in the reactor protection trip system and ESF systems and are subject to normal operating pressures greater than 500 psi but less than or equal to 1500 psi. These transmitters have either had the sensing modules replaced by Rosemount with new modules manufactured after July 11, 1989 or have reached the psi-month threshold criterion recommended by Rosemount and thus will be excluded from an enhanced surveillance program. We recognize the need to detect potential failures due to loss of fill-oil and maintain functional reliability. We feel we have taken appropriate actions to maintain a high degree of confidence in these transmitters.
- f. Rosemount Model 1153 Series B transmitters are installed in safety-related systems and are subject to normal operating pressures less than 500 psi. These transmitters will not be included in an enhanced surveillance program. We recognize the need to detect potential failures due to loss of fill-oil and maintain functional reliability. We feel we have taken appropriate actions to maintain a high degree of confidence in these transmitters.

Rosemount Model 1153 Series B transmitters, manufactured prior to July 11, 1989, are also contained in spare stock at the Monticello Nuclear Generating Plant. A number of these transmitters have been refurbished with sensing modules manufactured after July 11, 1989 for use as spares in the reactor protection trip system, ESF systems and safety-related systems with normal operating pressures greater than 500 psi. Controls have been established to prevent the use of the remaining spare Rosemount Model 1153 Series B transmitters in safety-related applications of 500 psi or more.

Requested Action No. 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.

Monticello Response to Requested Actions for Operating Reactors

Response

An enhanced surveillance program is no longer required for the Rosemount Model 1153 Series B transmitters installed at the Monticello Nuclear Generating Plant.