

Consumers
Power

**POWERING
MICHIGAN'S PROGRESS**

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July 17, 1990

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
RESPONSE TO BULLETIN 90-01 - LOSS OF FILL-OIL IN ROSEMOUNT TRANSMITTERS

NRC Bulletin 90-01 entitled, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount", dated March 9, 1990, requested Consumers Power Company to promptly identify and take appropriate corrective actions for Model 1153 Series B, Model 1153 Series D, and Model 1154 transmitters manufactured by Rosemount that may be leaking fill-oil. This letter is to provide Consumers Power Company's response to Bulletin 90-01 for Palisades. All requested actions contained in Bulletin 90-01 have been completed for Palisades and the required responses are included as an Attachment to this letter.

No transmitters from the manufacturing lots identified by Rosemount, as having a high failure fraction due to loss of fill-oil, have been identified at Palisades. In addition, Palisades has seen no evidence to indicate loss of fill-oil in any of the Rosemount transmitters which are utilized at the plant.

H F Cooper
Licensing Consultant

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

Attachment

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CONSUMERS POWER COMPANY

Palisades Plant
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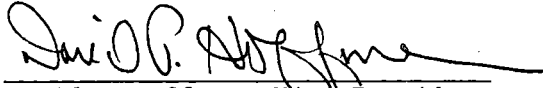
RESPONSE TO NRC BULLETIN 90-01

At the request of the Commission and pursuant to the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended, and the Commission's Rules and Regulations thereunder, Consumers Power Company submits our response to NRC Bulletin 90-01 dated March 9, 1990, entitled, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount." Consumers Power Company's response is dated July 17, 1990.

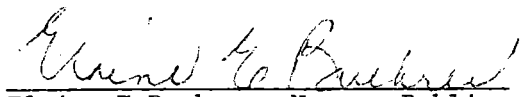
CONSUMERS POWER COMPANY

To the best of my knowledge, information and belief, the contents of this Technical Specification Change Request are truthful and complete.

By


David P Hoffman, Vice President
Nuclear Operations

Sworn and subscribed to before me this 17th day of July, 1990.


Elaine E Buehrer, Notary Public
Jackson County, Michigan
My commission expires October 11, 1993

[SEAL]

ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

RESPONSE TO NRC BULLETIN 90-01
ROSEMOUNT TRANSMITTER LOSS OF FILL-OIL

July 17, 1990

ATTACHMENT 1
 RESPONSE TO NRC BULLETIN 90-01
ROSEMOUNT TRANSMITTER LOSS OF FILL-OIL

Requested Action 1

1. Identify Model 1153 Series B, 1153 Series D, and Model 1154 pressure or differential pressure transmitters, excluding Model 1153 Series B, 1153 Series D, and Model 1154 transmitters manufactured by Rosemount subsequent to July 11, 1989, that are currently utilized in either safety-related systems or systems installed in accordance with 10 CFR 50.62 (the ATWS rule).

Response

Table A identifies Model 1153 Series B, Model 1153, Series D and Model 1154 transmitters manufactured before July 11, 1989, currently utilized in safety-related systems, along with their associated service description. Palisades utilizes 12 other Rosemount 1153D transmitters in safety-related systems. Taking a proactive approach, these 12 transmitters were upgraded to new improved standards by returning them to Rosemount for sensor module update or replacing them with new transmitters, manufactured after July 11, 1989, during the Maintenance Outage (MAOUT) of 1990.

NOTE: Palisades does not utilize any other brand transmitter that contains a Rosemount manufactured sensing module.

TABLE A: MODEL 1153 SERIES B, 1153 SERIES D AND 1154 ROSEMOUNT TRANSMITTERS UTILIZED IN SAFETY-RELATED SYSTEMS

LT-0751A	1153DD5	402244	STEAM GENERATOR LEVEL TRANSMITTER
LT-0751B	1153DD5	402245	STEAM GENERATOR LEVEL TRANSMITTER
LT-0751C	1153DD5	390726	STEAM GENERATOR LEVEL TRANSMITTER
LT-0751D	1153DD5	390730	STEAM GENERATOR LEVEL TRANSMITTER
LT-0752A	1153DD5	390731	STEAM GENERATOR LEVEL TRANSMITTER
LT-0752B	1153DD5	390732	STEAM GENERATOR LEVEL TRANSMITTER
LT-0752C	1153DD5	390735	STEAM GENERATOR LEVEL TRANSMITTER
LT-0752D	1153DD5	390733	STEAM GENERATOR LEVEL TRANSMITTER

Requested Action 2

Determine whether any transmitters identified in Item 1 are from the manufacturing lots that have been identified by Rosemount as having a high failure fraction due to loss of fill-oil. Addressees are requested not to utilize transmitters from these suspect lots in the reactor protection or engineered safety features actuation systems; therefore,

addressees are requested to develop and implement a program to replace, at the earliest appropriate opportunity, transmitters from these suspect lots in use in the reactor protection or engineered safety features actuation systems.

Response

The eight (8) transmitters listed in Table A that are utilized in safety-related systems do not appear on ROSEMOUNT MODEL 1153 AND 1154 PRESSURE TRANSMITTER SUSPECT LIST, which has been identified by Rosemount as those having a high failure fraction due to loss of fill-oil. It should be noted that the other 12 transmitters utilized in safety-related systems that were upgraded during MAOUT 1990 did not appear on this suspect list either.

Requested Action 3

Review plant records (for example, the three most recent calibration records) associated with the transmitters identified in Item 1 above to determine whether any of these transmitters may have already exhibited symptoms indicative of loss of fill-oil. Appropriate operability acceptance criteria should be developed and applied to transmitters identified as having exhibited symptoms indicative of loss of fill-oil from this plant record review. Transmitters identified as having exhibited symptoms indicative of loss of fill-oil that do not conform to the operability acceptance criteria should be addressed in accordance with the applicable technical specification. Transmitters identified as having exhibited symptoms indicative of loss of fill-oil that do not conform to the operability acceptance criteria and are not addressed in the technical specifications should be replaced at the earliest appropriate opportunity.

Response

A review of the calibration history of those transmitters identified in Table A was performed. Based on the acceptance criteria presented in Rosemount Technical Bulletins, none of these transmitters exhibit symptoms indicative of fill-oil loss. All transmitters identified in Table A, along with all other Model 1153B, 1153D and 1154 transmitters presently utilized, including spares, will undergo a sensor module replacement during the refueling outage beginning in September 1990 (REFOUT 1990). This will involve the replacement of old sensor modules with new modules manufactured after July 11, 1989. It will be done on site by I&C personnel using guidelines provided in Rosemount Instruction Manuals.

Requested Action 4

Develop and implement an enhanced surveillance program to monitor transmitters identified in Item 1 for symptoms of loss of fill-oil.

Response

An enhanced surveillance program to monitor the transmitters identified in Table A is unnecessary because of the sensor module replacement of these transmitters and all other Model 1153B, 1153D, and 1154 transmitters. This is also supported by upgrading safety-related transmitters during MAOUT 1990. Some actions were taken, however, along these lines. A training program was developed and implemented to train operators and I&C technicians on the symptoms and problems associated with loss of fill-oil in Rosemount Transmitters. Shiftly checks on these safety-related transmitters compare indications to determine if any are functioning improperly. Also, the identified transmitters are used in the Reactor Protection System (RPS) and are applied in a decreasing signal to trip application. If a transmitter were to experience a loss of fill-oil, the signal output would decrease. This condition is conservative in initiating a RPS channel trip at a low value.

Requested Action 5

Document and maintain in accordance with existing plant procedures a basis for continued plant operation covering the time period from the present until such time that the Model 1153 Series B, 1153 Series D, and Model 1154 transmitters from the manufacturing lots that have been identified by Rosemount as having a high failure fraction due to loss of fill-oil in use in the reactor protection or engineered safety features actuation systems can be replaced. In addition, while performing the actions requested above, addressees may identify transmitters exhibiting symptoms indicative of loss of fill-oil that do not conform to the established operability acceptance criteria and are not addressed in the technical specifications. As these transmitters are identified, this basis for continued plant operation should be updated to address these transmitters covering the time period from the time these transmitters are identified until such time that these transmitters can be replaced. When developing and updating this basis for continued plant operation, addressees may wish to consider transmitter diversity and redundancy, diverse trip functions (a separate trip function that may also provide a corresponding trip signal), a special system and/or component tests, or (if necessary) immediate replacement of certain suspect transmitters.

Response

None of Palisades transmitters are from the manufacturing lots identified. Thus, justification for continued operation (JCO) is not at issue for Palisades. No JCO will be developed.

Reporting Requirements

1. Provide, within 120 days after receipt of this bulletin, a response that:
 - a. Confirms that Items 1, 2, 3, 4, and 5 of Requested Actions for Operating Reactors have been completed.
 - b. Identifies the indicated manufacturer; the model number; the system the transmitter was utilized in; the approximate amount of time at pressure; the corrective actions taken; and the disposition (eg, returned to vendor for analysis) of Rosemount Model 1153 Series B, Model 1153 Series D, and Model 1154 transmitters that are believed to have exhibited symptoms indicative of loss of fill-oil or have been confirmed to have experienced a loss of fill-oil. This should include Model 1153 Series B, Model 1153 Series D and Model 1154 transmitters manufactured after July 11, 1989.
 - c. Identifies the system in which the Model 1153 Series B, 1153 Series D, and Model 1154 transmitters from the manufacturing lots that have been identified by Rosemount as having a high failure fraction due to loss of fill-oil are utilized and provides a schedule for replacement of these transmitters which are in use in the reactor protection or engineered safety features actuation systems.

Response

1.
 - a. All requirements of Bulletin 90-01 have been addressed.
 - b. At this time Palisades has observed only one Rosemount Transmitter that has exhibited symptoms indicative of loss of fill-oil. This Model 1154GP9RB pressure transmitter, serial number 418254, was used as a narrow range pressurizer pressure transmitter. It was used approximately 24 months at a pressure of 2060 psi. It was determined, through the use of a redundant transmitter that it was outputting values that were lower than the actual value. It was subsequently removed from service and is now in the process of being returned to Rosemount for evaluation.
 - c. Palisades currently utilizes only one transmitter from the manufacturing lots that have been identified by Rosemount as having a high failure fraction due to loss of fill-oil. It is used to monitor the Auxiliary Feedwater Low Suction Pressure trip, which is not considered a safety-related system. However, this transmitter along with all Model 1153 Series B, 1153 Series D and 1154 transmitters, including spares, is scheduled for sensor module replacement during REFOUT 1990.

Reporting Requirements

2. Model 1153 Series B, Model 1153 Series D and Model 1154 transmitters that, subsequent to providing the response required by Item 1 above, exhibit symptoms of loss of fill-oil or are confirmed to have experienced a loss of fill-oil should be reviewed for reportability under existing NRC regulations. If determined not to be reportable, addressees are requested to document and maintain, in accordance with existing plant procedures, information consistent with that requested in Item 1 b) above for each transmitter identified.

Response

2. Rosemount Transmitter Models 1153 Series B, 1153 Series D and 1154's utilized in safety related systems that begin to exhibit symptoms of loss of fill-oil after this response has been made and before sensor module replacement during REFOUT 1990, will be identified and reviewed for reportability to the NRC and NPRDS. Any Model 1153 Series B, 1153 Series D or 1154 transmitter that exhibits symptoms indicative of loss of fill-oil during the time period before REFOUT 1990, will be documented with their respective manufacturer, model number, approximate amount of time at pressure, corrective actions taken and final disposition, if determined not to be reportable to the NRC.