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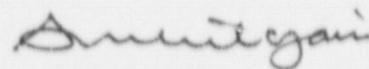
February 20, 1998  
L-98-032

*Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334 License No. DPR-66  
LER 98-002-00*

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

In accordance with Appendix A, Beaver Valley Technical Specifications, the following Licensee Event Report is submitted:

LER 98-002-00, 10 CFR 50.73(a)(2)(i) and 10 CFR 50.73(a)(2)(vii), "Condition Prohibited by the Technical Specifications - Inadequate Recovery from Feedwater Flow Transmitter Calibration."



S. C. Jain

RWF/ds

Attachment

IE221

9803030231 980220  
PDR ADOCK 05000334  
S PDR



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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50-0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNEB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)

Beaver Valley Power Station Unit 1

DOCKET NUMBER (2)

05000334

PAGE (3)

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TITLE

Condition Prohibited by Technical Specifications - Inadequate Recovery from Feedwater Flow Transmitter Calibration

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	21	98	98	002	00	02	20	98	N/A	N/A
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more)(11)							
POWER LEVEL (10)		15	20.402(b)			20.405(c)			50.73(a)(2)(iv)	73.71(b)
			20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)	73.71(c)
			20.405(a)(1)(ii)			50.36(c)(2)			X 50.73(a)(2)(vii)	OTHER
			20.405(a)(1)(iii)		X	50.73(a)(2)(i)			50.73(a)(2)(viii)(A)	
			20.405(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)	
			20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

R. D. Hart, Senior Licensing Supervisor

TELEPHONE NUMBER (include Area Code)

(412) 393-5284

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limited to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On January 21, 1998, during the startup of Unit 1 in Mode 1 at 15% power, control room operators noticed that the 'A' loop feedwater flow indicators were not responding. Investigation showed that transmitters FT-FW-476 and FT-FW-477 were isolated. FT-476 and FT-477 were immediately returned to service, and the other four feedwater flow transmitters were also verified to be in service. Operating with FT-FW-476 and FT-FW-477 isolated represents an operation or condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i). There were no automatically or manually initiated safety system actuations in response to this event. The isolation occurred when the transmitters (FT-476 & FT-477) were calibrated during performance of Maintenance Surveillance Procedures (MSPs) 1MSP-24.26-1 and 1MSP-24.27-1 on 11/16/97 with Unit 1 in Mode 5. There were steps in these MSPs that required the transmitters to be left isolated and to notify I&C supervision if there is no water (system drained) to fill and vent them. These calibrations (FT-476 & FT-477) were performed after the instrument valve alignment check (1MSP-4.03-1) was performed. Transition into Mode 2 (1/20/98 @ 0309 hours) and Mode 1 (1/21/98 @ 1027 hours) was made contrary to Technical Specification 3.3.1.1 requirements. This represents an event where a single cause or condition caused two independent trains or channels to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe shutdown condition and is reportable pursuant to the requirement of 10CFR50.73(a)(2)(vii).

The apparent cause of the event is inadequate program/process, communications and administrative control of testing follow-up actions. The consequences of this event was the removal of the feedwater flow input from the 'A' loop for the reactor trip signal on steam/feedwater flow mismatch and low steam generator water level. Both channels of feedwater flow input from the 'B' and 'C' loops remained available. The safety consequences of this event were minimal. No adverse feedwater event occurred. The FT-FW-476 & FT-FW-477 feedwater flow transmitters were fixed at a zero feedwater flow. Plant operation above 40% would have satisfied the setpoint for steam/feedwater mismatch since steam flow would exceed 40% with zero feedwater flow indicated (though feedwater flow was actually being provided to the 'A' loop generator); however, no reactor trip would have been initiated unless a low steam generator level coincident with the steam/feedwater mismatch occurred. Thus the isolated feedwater transmitters would still have performed their only reactor trip system safety function if a low steam generator level would have occurred on the 'A' loop. Additionally the feedwater flow transmitters were immediately unisolated when the condition was identified.

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Beaver Valley Power Station Unit 1	05000334	98	02	00	2 OF 8

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

PLANT AND SYSTEM IDENTIFICATION

Westinghouse Pressurized Water Reactor (PWR)  
Solid State Protection System (SSPS) {JC}\*  
Reactor Trip System (RTS) {JC}\*  
Main Feedwater System (MFS) {SJ}\*

\*Energy Industry Identification System (EIIS), system and component function identifier codes appear in the text as (SS/CCC).

CONDITIONS PRIOR TO OCCURRENCE

Beaver Valley Power Station Unit 1, Mode 1, 15 percent Reactor Power

There were no structures, components, or systems that were inoperable that contributed to the event beyond the identified two feedwater transmitters.

DESCRIPTION OF EVENT

On January 21, 1998, during the startup of Unit 1 in Mode 1 at 15% power, control room operators noticed that the 'A' loop feedwater flow indicators were not responding. Investigation showed that transmitters FT-FW-476 and FT-FW-477 were isolated. FT-476 and FT-477 were immediately returned to service, and the other four feedwater flow transmitters were also verified to be in service. Operating with FT-FW-476 and FT-FW-477 isolated represents an operation or condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i)(B) as "Any operation or condition prohibited by the plant's Technical Specifications," since there were less than the minimum allowable channels operable for the Steam/Feedwater Flow Mismatch coincident with Low Steam Generator Level reactor trip function while ascending into Mode 2 and Mode 1. There were no automatically or manually initiated safety system actuations in response to this event.

CAUSE OF EVENT

The apparent cause of the event is inadequate program/process, communications and administrative control of testing follow-up actions. There was no consistent method utilized by maintenance to ensure that transmitters left isolated, due to systems being drained when they were calibrated, were returned to service prior to entering a mode where the equipment is required by Technical Specifications. Reviewers of the completed Maintenance Surveillance Procedure (MSP) did not initiate follow-up actions to track final restoration of the isolated transmitters after the feedwater loops were filled. Additionally, communications concerning the isolated transmitters were less than adequate in that there was no follow-up with entries on procedure critique sheets.

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Beaver Valley Power Station Unit 1	05000334	98	002	00	3 OF 8

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

ANALYSIS OF EVENT

On October 31, 1997, Maintenance conducted the Maintenance Surveillance Procedure IMSP-4.03-I, "ESF and Miscellaneous Safety Related Instrumentation Valve Alignment and Calibration Verification." This procedure is used to verify the following: 1) instrument fill and vent, 2) valve alignment verification, and 3) instrument calibration verification. The Main Feedwater Flow Transmitters FT-FW-476, 477, 486, 487, 496 and 497 were included in the instruments verified by IMSP-4.03-I. The Feedwater Flow Transmitters data sheets noted that the Fill & Vent was not performed for FT-FW-476 & FT-486 because of "No Water"; all valves were verified and indicators had the correct calibration stickers. Although there was no water available to fill and vent FT-476 and FT-486, since the transmitters were in service, IMSP-4.03-I was completed on 11/15/97.

On 11/13/97, since only the transmitters were to be calibrated, supervision reviewed the six MSPs and N/A'd sections not required.

On 11/13/97, FT-FW-487 was calibrated using IMSP-24.28-I and FT-FW-497 was calibrated using IMSP-24.30-I.

On 11/14/97, FT-FW-486 was calibrated using IMSP-24.29-I and FT-FW-496 was calibrated using IMSP-24.31-I.

On 11/16/97, FT-FW-476 was calibrated using IMSP-24.26-I and FT-FW-477 was calibrated using IMSP-24.27-I.

On 11/13/97 and 11/14/97, IMSP-24.28-I, IMSP-24.30-I and IMSP-24.29-I & IMSP-24.31-I were assigned to the afternoon shift I&C Technicians. As part of normal pre-work preparations, while reviewing the MSPs, the I&C Technician questioned supervision if the Feedwater System was drained; which may not enable them to fill / vent and return the transmitters to service (step VII.E.18) after the calibration was complete. If the system was drained, the procedure directed the I&C Technician (step VII.E.12.d.3) to "Notify I&C Supervisor that filling and venting was not performed and go to Step VII.E.19." By skipping to Step VII.E.19, the steps that returned the transmitters to service would not be performed. As a result of the I&C Technician question and because the Feedwater System was still drained, the I&C supervisor N/A'd only step VII.E.12. As a result, the steps (VII.E.13 through VII.E.18) that returned FT-487, 497 and FT-486, 496 to service were not performed. (FT-487 and FT-497 were returned to service on 11/13/97, and FT-486 and FT-496 were returned to service on 11/14/97).

On 11/15/97, IMSP-4.03-I, "ESF and Miscellaneous Safety Related Instrumentation Valve Alignment and Calibration Verification" was signed noting its completion by the Nuclear Shift Supervisor (NSS). The Main Feedwater Flow Transmitters (FT-FW-476, 477, 486, 487, 496, 497) were verified to be valved in service and calibration stickers attached to their indicators. However, FT-FW-476 & FT-FW-486 were not filled and vented due to no water. Although there was no water available to fill and vent FT-FW-476 and FT-FW-486, and since the transmitters were not isolated, IMSP-4.03-I completed on 11/15/97.

Note: IMSP-24.27 (FT-477) was originally authorized by the NSS to work on 11/13/97, but due to a status light associated with Rack 30, the initial conditions could not be met on 11/13/97 and the work was rescheduled for 11/16/97.

On 11/16/97, IMSP-24.27-I (FT-FW-477) was assigned to the afternoon shift I&C Technician. Since only the transmitter was to be calibrated, the sections of the procedure not to be performed were N/A'd, initialed and dated by the I&C supervisor. During the pre-work review, the I&C Technician did not question the Feedwater System status since the procedure contained conditional steps to be performed if the system was drained. The procedure was authorized to work (Unit 1 was in Mode 5) by the NSS. The steps to remove from service and calibrate the transmitter were performed. However, during the Transmitter Return to Service section VII.E, the Fill & Vent could not be completed. At Step VII.E.12.d, no water came out of the HP Vent plug; the tubing was actually under vacuum and air was being drawn into the sensing lines. Therefore, the LP isolation valve was closed, the HP Vent plug was installed.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

ANALYSIS OF EVENT (Continued)

Since the system was drained, the procedure (Step VII.E.12.d.3) directed the I&C Technician to "Notify I&C Supervisor that filling and venting was not performed and go to Step VII.E.19." Because FT-FW-477 was still isolated since there was no water to fill and vent, I&C supervision was informed of the situation by the I&C Technician. The steps not performed at this time were those that returned the transmitter to service and inspect for leaks. The remaining steps that return the instrument loop to service were performed. At the "Return to Service" step in the MSP, Step VII.Q.14 & 15, the I&C Technician informed the Reactor Operator and NSS that the transmitter was calibrated. It could not now be determined whether Operations was aware that these two transmitters remained unfilled and unvented at that time. IMSP-24.27-I (FT-477) was completed on 11/16/97. However, knowledge of this information about the transmitters remaining unfilled and unvented would not have prevented the NSS from signing the MSP to note its completion since the FT-FW-477 was calibrated and I&C supervision was informed of the isolated transmitter as required per the procedure if a transmitter were left in an unfilled and unvented condition.

On 11/16/97, IMSP-24.26-I (FT-FW-476) was assigned to the afternoon shift I&C Technician. Since only the transmitter was to be calibrated, the sections of the procedure not to be performed were N/A'd, initialed and dated by the I&C supervisor. During his pre-work review, the I&C Technician reviewed the procedure, and did not have any questions concerning the Feedwater System status since the procedure contained conditional steps to be performed if the system was drained. The procedure was authorized to work (Unit 1 was in Mode 5) by the NSS. The steps to remove from service and calibrate the transmitter were performed. However, during the Transmitter Return to Service section VII.E, the Fill & Vent could not be completed. At Step VII.E.12.d, no water came out of the HP Vent plug; the tubing was actually under vacuum and air was being drawn into the sensing lines. Therefore, the LP isolation valve was closed, the HP Vent plug was installed. Since the system was drained, the procedure (Step VII.E.12.d.3) directed the I&C Technician to "Notify I&C Supervisor that filling and venting was not performed and go to Step VII.E.19." Because FT-FW-476 was still isolated since there was no water to fill and vent, I&C supervision was informed of the situation by the I&C Technician. The steps not performed at this time were those that returned the transmitter to service and inspect for leaks. The remaining steps that return the instrument loop to service were performed. At the "Return to Service" step in the MSP, Step VII.Q.14 & 15, the I&C Technician informed the Reactor Operator and NSS that the transmitter was calibrated. It could not now be determined whether Operations was aware that these two transmitters remained unfilled and unvented at that time. IMSP-24.26-I (FT-476) was completed on 11/16/97. However, knowledge of this information about the transmitters remaining unfilled and unvented would not have prevented the NSS from signing the MSP to note its completion since the FT-FW-476 was calibrated and I&C supervision was informed of the isolated transmitter as required per the procedure if a transmitter were left in an unfilled and unvented condition.

On 11/16/97, 1530-2400 hr shift, an entry in the I&C shift turnover log stated that "Feed Flow Loops MSP-24.26 & MSP-24.27 were finished" without any mention that FT-FW-476 and FT-FW-477 were still isolated.

On 11/17/97, 0000-0830 hr shift, I&C supervision reviewed and approved IMSP-24.26-I and IMSP-24.27-I, without any comments recorded on the procedure critique sheets that FT-FW-476 and FT-FW-477 were still isolated.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

ANALYSIS OF EVENT (Continued)

On 1/20/98 at 0309 hours, Unit 1 entered Mode 2. On 1/21/98 at 1027 hours, Unit 1 entered Mode 1. These modes changes were made contrary to Technical Specification 3.3.1.1, Table 3.3-1, Item 15 requirements for minimum channels operable. This represents an event where a single cause or condition caused two independent trains or channels to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe shutdown condition and is reportable pursuant to the requirement of 10CFR50.73(a)(2)(vii) as "Any event where a single cause or condition caused two independent trains or channels to become inoperable in a single system designed to : (A) shutdown the reactor and maintain it in a safe shutdown condition" since a single maintenance situation caused the same inoperable status in two separate and independent channels to remain undetected when the plant increased modes.

During the startup of Unit 1 on 1/21/98, the Assistant Nuclear Shift Supervisor noted inadequate response for flow indicators FI-FW-476 and FI-FW-477. I&C supervision was notified to investigate. At approximately 1530 hours, I&C reported that FT-FW-477 was isolated. I&C, with NSS permission, returned FT-FW-477 to service at approximately 1545 hours. At approximately 1600 hours, I&C reported that FT-FW-476 was also isolated. I&C, with NSS permission, returned FT-FW-476 to service at approximately 1615 hours. The discovery of the two transmitters being isolated was found and corrected in series. Thus the NSS could not have determined that a Technical Specification 3.0.3 condition existed until the second transmitter was identified as isolated, at which time the first transmitter had already been returned to service. Although there was no recognizable Technical Specification 3.0.3 condition at the time of discovery of either transmitter being isolated, the identification of the second transmitter being isolated indicated that the plant had previously been in a Technical Specification 3.0.3 condition. Based on subsequent discussions with the NSS, the NSS did recognize at the time the second transmitter was identified as isolated, that the plant had previously been in a Technical Specification 3.0.3 condition, but was not now in that condition. This information was discussed with management and crew. However Operations did not note this fact in their logs that the station had previously entered and then exited Technical Specification 3.0.3 due to two channels of feedwater flow being inoperable on one loop.

Upon discovery of the transmitters being isolated, Condition Report 980097 was initiated to document the event.

The consequence of this event was that the feedwater flow input from the 'A' loop for the reactor trip signal on steam/feedwater flow mismatch was held at zero feedwater flow (due to being isolated). Both channels of feedwater flow input from the 'B' and 'C' loops remained available. The safety consequences of this event were minimal. No adverse feedwater event occurred. The FT-FW-476 & FT-FW-477 feedwater flow transmitters were fixed at a zero feedwater flow, which is a conservative output with regard to the reactor trip system for parameter input. Plant operation above 40 % would have satisfied the setpoint for steam/feedwater mismatch since steam flow would exceed 40% with zero feedwater flow indicated (though feedwater flow was actually being provided to the 'A' loop generator) ; however, no reactor trip would have been initiated unless a low steam generator level coincident with the steam/feedwater mismatch occurred. Thus the isolated feedwater transmitters would still have performed their only reactor trip system safety function if a low steam generator level would have occurred on the 'A' loop. Additionally the feedwater flow transmitters were immediately unisolated when the condition was identified.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

CORRECTIVE ACTIONS

COMPLETED

1. FT-FW-476 and FT-FW-477 were unisolated, vented and their calibration re-verified as acceptable. This was completed on January 21, 1998.
2. The control board instrumentation for the reactor protection channels was walked down following the identification of the two transmitters being isolated. No other discrepancies were found. This was completed on January 21, 1998.
3. The other four feedwater flow transmitters ('B' and 'C' steam generators) were verified to be inservice following the identification of the two transmitters being isolated. This was completed on January 21, 1998.
4. A separate Condition Report has been written to identify that the Operations log did not contain an entry noting the entrance into and exit from Technical Specification 3.0.3, contrary to Operations' log keeping standards when it was identified that both channels of feedwater flow had been isolated. This was completed on February 11, 1998.

FUTURE

5. Maintenance procedures that contain conditional restoration steps to allow an instrument to remain isolated after performance, will be revised to require: a) that Operations place Out Of Service stickers on the isolated instrument and log the status of the Technical Specification related equipment in the Technical Specification Turnover Checklist, and b) Maintenance to enter the isolated condition on the Maintenance procedure critique sheet, in addition to informing Maintenance supervision. This will be completed by March 15, 1998.
6. Maintenance individuals who review completed Maintenance Surveillance Procedures will be counseled on management expectations regarding reviewer responsibilities including the need to self check. Management expectations will be documented. These actions will be completed by February 28, 1998.
7. Maintenance craft and supervisory personnel will be counseled on management expectations regarding their communication responsibilities with all site personnel pertaining to equipment status. These actions will be completed by February 28, 1998.
8. A review of Radiological Operations procedures, Chemistry procedures, and System Performance Engineering test procedures will be conducted to determine if they contain similar steps which could result in equipment unable to perform intended functions due to being isolated when completed. Any required actions resulting from this review will be completed by April 30, 1998.
9. A review will be conducted by the Work Management Department to ensure work planning guidelines provide adequate guidance to preclude equipment mispositioning as maintenance tasks are completed. Any required actions resulting from this review will be completed by April 30, 1998.

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CORRECTIVE ACTIONS (Continued)

10. A case study of this event addressing the issues and associated operations personnel responsibilities will be developed and will be reviewed by all control room senior reactor operators. These actions will be completed by April 30, 1998.
11. A discussion will be held with control room shift personnel to re-emphasize management expectations for log keeping. This will be completed prior to either Unit 1 or Unit 2 entering Mode 4 from their current shutdown condition.

REPORTABILITY

This event represents an operation or condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i). This was also an event where a single cause or condition caused two independent trains or channels to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe shutdown condition and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(vii).

SAFETY IMPLICATIONS

The safety consequences of this event were minimal. The consequence of this event was that the feedwater flow input from the 'A' loop for the reactor trip signal on steam/feedwater flow mismatch was held at zero feedwater flow (due to both transmitters being isolated). Both channels of feedwater flow input from the 'B' and 'C' loops remained available. No adverse feedwater event occurred. The FT-FW-476 & FT-FW-477 feedwater flow transmitters were fixed at a zero feedwater flow, which is a conservative output with regard to the reactor trip system for this parameter. Plant operation above 40 % would have satisfied the setpoint for steam/feedwater mismatch since steam flow would exceed 40% with zero feedwater flow indicated ( even though feedwater flow was actually being provided to the 'A' loop generator) ; however, no reactor trip would have been initiated unless a low steam generator level coincident with the steam/feedwater mismatch also occurred. Thus the isolated feedwater transmitters would still have performed their only reactor trip system safety function if a low steam generator level would have occurred on the 'A' loop.

The reactor trip on steam/feedwater mismatch coincident with low steam generator level was included in the original design to address control / protection system interactions per IEEE-279. A design change was implemented on Unit 1 in 1997 to install a median signal selector on the Unit 1 steam generator level control system, similar to the existing median signal selector approved for use at Unit 2, to address IEEE-279 criteria. Use of the median signal selector on Unit 1 effectively provides an adequate control / protection interface at Unit 1 in accordance with IEEE-279. Now that the median signal selector has been installed, the reactor trip on steam/feedwater mismatch coincident with low steam generator level is a redundant means to address the applicable IEEE-279 criteria. Therefore BVPS Unit 1 has a basis to request a Technical Specification change request to delete the reactor trip on steam/feedwater mismatch coincident with low steam generator level since the IEEE-279 criteria is being addressed by another method. Thus BVPS Unit 1 did maintain adequate functional capability addressing IEEE-279 when both feedwater transmitters were isolated; though the use of the median signal selector does not relieve Duquesne Light Company of any responsibility to comply with the current Unit 1 Technical Specification requirements until a revision is approved by the NRC.

Additionally the feedwater flow transmitters were immediately unisolated when the condition was identified. The control board instrumentation for the reactor protection channels was walked down following the identification of the two feedwater flow transmitters being isolated and no other discrepancies were found.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

SIMILAR EVENTS

A review of BVPS Licensee Event Reports for the past two years that involved missed TS surveillances caused by human performance/coordination problems during maintenance activities identified the following events:

1. LER 1-97-007, "Failure to Test Control Room Emergency Bottled Air Pressurization Subsystem in Accordance with Technical Specifications."
2. LER 1-97-010, "Failure to Perform Gaseous Waste Disposal System Oxygen Testing as Required by Technical Specifications."
3. LER 1-97-017, "Engineered Safety Feature Actuation of the P-12 Interlock Due to Decreasing Reactor Water Trip."
4. LER 1-97-028, "Spent Fuel Pool Crane Interlocks and Physical Stops Not Tested Prior to Use in Accordance with Technical Specifications."
5. LER 2-97-006, "Technical Specification Requirements for 4.16 kv Bus Undervoltage Trip Feeder Breaker Function ESF Response Time Not Met."
6. LER 2-97-009, "Missed Surveillance of the Gaseous Waste Storage Tank Radioactive Material Quantity Determination."