NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

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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 (MNBB 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)	DOCKET NUMBER (2)	PAGE (3)
Beaver Valley Power Station Unit 2	05000412	1 OF 6

TITLE: Inadequate Beaver Valley Power Station Procedures to Ensure Compliance with Technical Specifications

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
4	9	98	98	007	02	8	19	98	N/A	N/A

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more)(11)							
POWER LEVEL (10)	0		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)		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	TELEPHONE NUMBER (include Area Code)
R. D. Hart, Senior Licensing Supervisor	(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)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X	YES (if yes, complete EXPECTED SUBMISSION DATE)	NO		Dec	04	98

ABSTRACT (Limited to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

A systematic review of Beaver Valley Power Station procedures is being performed as a self initiated corrective action. The review is in response to collective deficiencies identified concerning site generic weakness in knowledge, understanding and application of Technical Specifications. Past identified deficiencies have been reported via other Licensee Event Reports (LERs). The review is focusing on determining if procedures comply with the Technical Specification Requirements and to ensure that they do not direct Technical Specification non-compliance during their performance. Examples were identified where Beaver Valley Power Station Unit 2 procedures either caused a non-compliance condition or was determined based on interviews with licensed operators that a non-compliance condition had occurred sometime in the past as result of these procedure inadequacies. The identified procedure inadequacies did not contain sufficient information to ensure Technical Specification compliance. This event represents an operation or condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i). Unit 1 was evaluated for similar issues and the results are being reported in LER 98-018-00 for Unit 1.

The apparent cause of this event was inadequate training of the procedure writers and the review organizations with the knowledge and understanding of Technical Specifications. Some station procedures lacked the content information to successfully perform tasks due to missing or incorrect information, technical inadequacies, and lack of sufficient detail.

The identified procedure deficiencies allowed for conditions which are not compliant to Technical Specification requirements. These non-compliant conditions did not prevent safety systems from performing their safety functions. Thus, there was minimal safety consequence to these events. The health and safety of the public were not affected.

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

PLANT AND SYSTEM IDENTIFICATION

Westinghouse Pressurized Water Reactor {PWR}
Plant Procedures (Various Systems)*

* No Specific Energy Industry Identification System (EIIS)

CONDITIONS PRIOR TO OCCURRENCE

Beaver Valley Power Station Unit 2, Mode 5, 0 percent Reactor Power

There were no components, or systems that were inoperable that contributed to the event.

DESCRIPTION OF EVENT

A systematic review of Beaver Valley Power Station procedures is being performed as a self initiated corrective action. The review is in response to collective deficiencies identified concerning site generic weakness in knowledge, understanding and application of Technical Specifications. Past identified deficiencies have been reported via other Licensee Event Reports (LERs). The review is focusing on determining if procedures comply with the Technical Specification Requirements and to ensure that they do not direct Technical Specification non-compliance during their performance. Procedure reviews are being conducted in the Operations, Maintenance, Chemistry, Health Physics, System & Performance Engineering, and Nuclear Engineering areas.

This review of station procedures, including outstanding procedure change requests, is being conducted in two phases. The first phase involves a review of station procedures which involve startup, shutdown, alarm response, instrument failure and abnormal operating procedures. This will be complete before startup from the current Unit 1 outage. The second phase will involve all remaining station procedures which involve a Technical Specification interface as described above.

The following examples were identified where Beaver Valley Power Station Unit 2 procedures either caused a non-compliance condition or was determined based on interviews with licensed operators that a non-compliance condition had occurred sometime in the past as a result of these procedure inadequacies:

Condition Report 980752: Procedure 2OM-50.4.J, 2OM-51.4.A and 2OM-51.4.G directs the operator to perform a nuclear source range channel functional test within 24 hours of energizing the nuclear source range instruments when not within the surveillance interval. This application of 4.0.3 is inappropriate since Technical Specification 4.0.3 time limits were being applied when it was known that the surveillance had already exceeded its allowed interval. This is applicable to Units 1 and 2.

Condition Report 980757, 980843: Alarm Response Procedure 2OM-36.4.AED(AFD) on Diesel Generator Jacket Coolant Temperature High on low service water flow directs the operator to open the opposite train service water inlet valve. The procedure does identify that the Service Water System header supplying the Diesel Generator is inoperable. However the procedure does not identify that both Diesel Generators would then be in a inoperable condition due to the unanalyzed service water flow rate. Similar procedural steps were found in 2OM-30.4.M used for the Asiatic Clam treatment program.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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DESCRIPTION OF EVENT

Condition Report 980761: Procedure 2OM-50.4.C directs the operator to perform a P-12 surveillance after Mode 3 was achieved rather than prior to the transition to Mode 3. Technical Specification 4.0.4 requires the surveillance be completed prior to the Mode in which the item is required.

Condition Report 980763: Procedure 2OM-51.4.D directs the operator to de-energize four Safety Injection motor operated valves (two on each train) in the shut position in Mode 4. Technical Specification 3.5.3 still requires one train of ECCS in Mode 4, but does not provide the details for the required flow path. De-energizing these valves that receive an auto-open signal from SSPS conflicts with Technical Specification 3.5.3.

Condition Report 980792, 980811: Three containment isolation valves (leading to the steam driven auxiliary feedwater pump) were determined to be quarterly stroked during Modes 1, 2 & 3. However these valves were not being stroked in the valve stroke procedure during Mode 5 or 6 every 18 months in accordance with Technical Specification 4.6.3.1.2.d.

Condition Report 980837: Procedures 2OST-10.1, 2OST-10.2, 2OST-10.3, and 2OST-10.4 contained a Note which stated that the surveillance needed to be performed within 24 hours of when the RHR Loop was used to satisfy the Technical Specification requirements of 3.4.1.3, 3.9.8.1 or 3.9.8.2. The surveillance needs performed within its required frequency or prior to declaring the loop operable. The only 24 hour exception is when Action Statements have forced the plant into a Mode (or condition) where the RHR Loops are required, not for normal plant shutdown.

Condition Report 980869: Test Procedure 2BVT 1.33.1 contain steps which could have resulted in a condition prohibited by Technical Specification 3.7.8.1. Initial conditions could have shut down both Supplemental Leak Collection Exhaust Fans (2HVS*FN204A 7 B) which would be a condition prohibited by Technical Specification (TS) 3.7.8.1. The initial review of recent past procedures showed that the potential condition was not entered. However a subsequent detailed review of past procedure copies retrieved from the storage mine showed that the tests run in 1992, 1993 and 1994 entered the condition prohibited by TS 3.7.8.1

Condition Report 980948: Technical Specification 4.3.4.2.b requires verification that the turbine valves travel through one complete cycle by direct visual observation of the movement of the valve. 2OM-52.4 only verifies valve movement in the closing direction and did not verify valve movement in the opening direction. "Direct observation of the movement of the" subject " valves through one complete cycle from the running position" would have to include verification of movement in both the opening and closing direction. Since 2OM-52.4 did not verify movement in the opening direction, this is a missed surveillance which is a condition prohibited by Technical Specifications.

Condition Report 981089: Procedure 2OST-2.4, "Quadrant Power Tilt Ratio (QPTR) Check", did not remove the Power Range input to the Axial Flux Difference alarm program. The test performance results in false input to the Power Range drawer in order to check the computer generated QPTR alarm. While inserting this false input, the particular Power Range channel undergoing the test is inoperable as is the Axial Flux Difference Alarm. Similar Power Range test procedures remove the Power Range channel under test from the AFD program, effectively keeping the AFD alarm program operable with 3 of 4 Power Range inputs. This is permissible per T.S. 3.2.1. a Precaution & Limitation of 2OST-2.4 erroneously states that the AFD alarm remains operable during this test. This is only true if the channel is removed from the IPC scan. The OST does require manual logging of Delta-Flux and final re-initialization of any penalty time accumulated. This restores the AFD alarm program to service. The reality is that the AFD alarm should be declared inoperable if the channel under test is not removed from scan. If the AFD alarm is in fact inoperable, T.S. 3.2.1 , surveillance 4.2.1.1, action "a.2" requires manual logging of the Axial Flux once per hour for the first 24 hours AFTER restoring the AFD monitor alarm to operable status. This has not been performed and therefore constitutes a missed surveillance which is a condition prohibited by Technical Specifications.

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

DESCRIPTION OF EVENT

Condition Report 981160: The leak test of the test port directed in Operating Surveillance Tests (OST) 2OST-47.1, Containment Airlock Door Test, would violate containment integrity. The leak test of the test port (required if the OST is being performed as part of a containment entry) requires the inner airlock door to be open and flows air from outside the airlock through the test port inside containment. Although the Licensing Requirement Manual allows the Containment Airlock equalization valves to open on an intermittent basis under administrative controls, there is no such similar criteria for the test port connection. Since the OSTs require the inner airlock door to be open and the open test port bypasses the closed outer airlock door, containment integrity is not maintained, allowing a (small) direct path from inside containment to the PAB outside of containment. This is a condition contrary to Technical Specification 3.6.1.1 in Modes 1-4 and Technical Specification 3.9.4 in Modes 5 & 6 during core alterations.

Condition Report 981216: A review for 2OST-1.22 revealed that both trains of SSPS Input Error Inhibit Switch's will be placed in Inhibit Position while in Mode 5. Performing this action will inhibit both Source Range detector inputs to SSPS. Technical Specification 3.3.1.1. Table 3.3-1, item 6.b. Shutdown; requires both Source Range detectors to be operable and at least one channel to trip in Mode 5. Action 5 is applicable with one less than the minimum channels operable. Since this OST makes both channels inoperable and incapable of tripping, the action can not be entered. Since 2OST-1.22 has been performed previously, this is a condition contrary to Technical Specification 3.3.1.1

Condition Report 981243: A review of the RCS RTD Cross-Calibration Test (2BVT 1.3.1) raised a question regarding the intent of the Technical Specification 3.3.2.1 on Engineered Safety Feature instrumentation for Interlock P-12. A recent clarification of the Technical Specification Action 38 in Table 3.3-3 Item 8c determined that the phase "existing plant conditions" referred only to the RCS and not to the Solid State Protection System (SSPS) as well. The BVT was originally written with the understanding that this phase included the SSPS bistables. With the current clarification, a review of past BVTs for both Units determined that the BVT performance in Mode 3 at Unit 2 during refuelings 2R5 and 2R6 put the station in a condition not allowed by Technical Specifications during the two hour test and Technical Specification 3.0.3 should have been entered. The applicable channels were restored after the approximate two hour test period, which was within Technical Specification 3.0.3 time frame to reach Mode 4. Since this BVT performed action in non-compliance with the current clarification, this is a condition contrary to Technical Specification 3.3.2.1

Condition Report 981327: A review for 2OST-6.6 revealed that this surveillance procedure contains steps which direct the operator to re-energize the PORV block valves for cases when the block valves have been de-energized to comply with Technical Specification 3.4.11 Actions. Performing this action is a condition contrary to Technical Specification 3.4.11. Since 2OST-6.6 has been performed previously, this is a condition contrary to Technical Specification 3.4.11. This procedure has been revised to acknowledge that Technical Specification 3.0.6 must be entered to complete the subject action.

Since the above identified procedure inadequacies did not contain sufficient information to ensure Technical Specification compliant conditions and these events represent an operation or condition prohibited by Technical Specifications, it is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i). The above reportable condition reports were generated from a review of greater than 2100 Unit 2 station procedures.

Any additional reportable events or conditions on Unit 2 identified by the Unit 2 procedures review will be provided via a supplement to this LER.

Unit 1 was evaluated for similar issues and the results are being reported in LER 98-018-00 for Unit 1.

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

CAUSE OF EVENT

The apparent cause of this event was inadequate training of the procedure writers and the review organizations with the knowledge and understanding of Technical Specifications. Some station procedures lacked the content information to successfully perform tasks due to missing or incorrect information, technical inadequacies, and lack of sufficient detail.

CORRECTIVE ACTIONS

1. Procedure reviews, and revisions where necessary, will be incorporated for the first phase of the Technical Specification procedure review before Unit 2 enters Mode 4 from its current outage. This will include the revisions necessary to correct the procedure inadequacies identified in this LER. This will provide correct information to facilitate Technical Specification compliance.

2. The remaining procedures scheduled to be reviewed in the second phase of this Technical Specification procedure review project will be reviewed and revised where necessary, prior to the first use of the procedure following the entry into Mode 4 from the current Unit 2 outage. The second phase review of the Unit 2 Technical Specification procedures will be complete by end of the next Unit 2 refueling outage (2R07).

3. Technical Specification training has been conducted for designated site personnel which includes licensed Operations, procedure writers, and review organization personnel. The purpose of the training was to baseline the understanding of the Technical Specifications, including ownership and management standards and expectations for full compliance. Topics covered include the relationship of Technical Specifications in the overall licensing process, specific examples of proper Technical Specification compliance, and examples of past non-compliance with Technical Specifications. This training has been completed for designated. The Technical Specification compliance training has been established as a continuing component of licensed operator training.

4. Safety Culture training is being provided to Operations and Maintenance personnel to foster a questioning attitude. This training is expected to be completed by December 31, 1998.

5. The resolution to the issue identified in Condition Report 981216 requires a Technical Specification amendment. This amendment change request has been submitted to the NRC on December 19, 1997. The procedure described in Condition Report 981216 will be revised in accordance with the schedule ultimately determined by the approved NRC Amendment rather than the schedule stated in Corrective Action No. 1 above.

REPORTABILITY

The identified procedure inadequacies did not contain sufficient information to ensure Technical Specification compliance. This event represents an operation or condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i).

SAFETY IMPLICATIONS

The identified procedure deficiencies allowed for conditions which are not compliant to Technical Specification requirements. These non-compliant conditions did not prevent safety systems from performing their safety functions. Thus, there was minimal safety consequence to these events. The health and safety of the public were not affected. There were no manual or automatic safety system actuations required as a result of this condition.

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SIMILAR EVENTS

A systematic review of Beaver Valley Power Station procedures is being performed as a follow-up corrective action. The review is in response to collective deficiencies identified concerning site generic weakness in knowledge, understanding and application of Technical Specifications. Past identified deficiencies have been reported via Licensee Event Reports. The procedure inadequacies identified in this report originated from a evaluation of previous Beaver Valley Power Station events as a result of the site Corrective Action Program, identified in the Description of Event section of this report.