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 AUTH. NAME AUTHOR AFFILIATION
 SWANK, D.A. Washington Public Power Supply System
 BAKER, J.W. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-027-00: on 910930, question on jet operability & surveillance applicability in Operational Conditions 1 & 2 below 25% rated thermal power raised. Caused by inadequate procedure. TS amend request will be submitted. W/911106 ltr.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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November 6, 1991
G02-91-204

Docket No. 50-397

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 91-027

Dear Sir:

Transmitted herewith is Licensee Event Report No. 91-027 for the WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Very truly yours,



J. W. Baker
WNP-2 Plant Manager

Enclosure:
Licensee Event Report No. 91-027

cc: Mr. John B. Martin, NRC - Region V
Mr. C. Sorensen, NRC Resident Inspector (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D. L. Williams, BPA (M/D 399)
NRC Resident Inspector - walk over copy

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Washington Nuclear Plant - Unit 2

DOCKET NUMBER (2)

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PAGE (3)

TITLE (4)

Jet Pump Operability

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 NAMES	DOCKET NUMBER(S)					
0	9	3	0	9	1	9	1	0	2	7	0	5	0	0	0
0	9	3	0	9	1	9	1	0	6	9	0	5	0	0	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

OPERATING MODE (9)	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.405(c)	50.38(c)(1)	50.38(c)(2)	50.73(a)(2)(i)	50.73(a)(2)(ii)	50.73(a)(2)(iii)	50.73(a)(2)(iv)	50.73(a)(2)(v)	50.73(a)(2)(vi)	50.73(a)(2)(vii)(A)	50.73(a)(2)(vii)(B)	50.73(a)(2)(ix)	73.71(b)	73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
POWER LEVEL (10)	0	1	2																		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
D. A. Swank, Compliance Engineer	5 0 9 3 7 7 - 4 1 4 7

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	X				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On October 15, 1991 it was concluded, based on the results of a Reportability Evaluation, that the previously accepted understanding of Technical Specification requirements for jet pump testing in Mode 2 were not in literal compliance with the Plant Technical Specifications.

On September 26, 1991 at 1636 hours WNP-2 entered Operational Condition 2. At 2338 hours on September 29, 1991 WNP-2 entered Operational Condition 1. On September 30, 1991 a question on jet pump operability and surveillance applicability in Operational Conditions 1 and 2 below 25% of rated thermal power was raised. It was concluded after extended evaluation that the Technical Specification requires performance of the testing within 24 hours after entry into Mode 2.

The immediate corrective actions for this event was that plant startup procedures were deviated to require performance of the surveillance procedure within 24 hours after entry into Mode 2 but prior to exceeding 25% of rated thermal power.

The root cause for this event was procedures less than adequate/instructions ambiguous. The Technical Specification for jet pumps does not clearly define when operability must be demonstrated. In addition, plant procedures failed to provide sufficient information to clearly define when the Specification is applicable.

This event posed no threat to the health and safety of the public or plant personnel since testing confirmed the operability of the jet pumps.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

Plant Conditions

Plant Mode - 1 (RUN)
Power Level - 12%

Event Description

On October 15, 1991, based on a Reportability Evaluation, it was concluded that failure to perform jet pump operability testing within 24 hours of entry into Mode 2 constituted a deviation from Technical Specification 3/4.4.1.2. This deviation is reportable pursuant to the requirements of 10 CFR 50.73(a)(i)(b).

On September 26, 1991 at 1636 hours WNP-2 entered Mode 2 as part of a startup following an outage. On September 29, 1991 at 2338 hours the plant entered Mode 1. On September 30, 1991 a question on jet pump operability in Modes 1 and 2 at less than 25% power was raised. Operations personnel stated that the Technical Specifications required the test be performed before the plant exceeded 25% of rated thermal power and every 24 hours thereafter. This understanding was based on a careful reading of both the Specification and the technical basis for the test. On October 1, 1991 the jet pump operability test was completed in preparation for raising reactor power above 25%.

Upon further evaluation it was concluded in a Reportability Evaluation that a conservative reading of the Specification requires performance of jet pump surveillance testing within 24 hours after entry into Mode 2. WNP-2 did not perform jet pump testing within the 24 hour period allowed following entry into Mode 2. This constituted a deviation from the Technical Specifications and is reportable pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B).

Immediate Corrective Action

Plant startup procedures were deviated to require performance of jet pump operability testing within 24 hours after plant entry into Mode 2 but prior to exceeding 25% of rated thermal power.

Further Evaluation and Corrective ActionA. Further Evaluation

Technical Specification 4.4.1.2.1 states:

Each of the above required jet pumps shall be demonstrated OPERABLE prior to THERMAL POWER exceeding 25% of RATED THERMAL POWER and at least once per 24 hours by determining recirculation flow, total core flow and diffuser-to-lower plenum differential pressure for each jet pump ...

LICENSEE EVENT REPORT (LER)
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The Specification is applicable in OPERATIONAL CONDITIONS 1 and 2.

Plant personnel previously interpreted this Specification as requiring performance of jet pump testing prior to exceeding 25% of rated thermal power and once per 24 hours thereafter. It is now understood that a literal interpretation of this Specification requires jet pump testing to be performed within 24 hours of entry into Mode 2 and every 24 hours thereafter, but always prior to exceeding 25% of rated thermal power. The technical value of this test when performed at low power and recirculation flow is minimal due to the low signal-to-noise ratio of the jet pump flow readings. Review of other BWR plant Technical Specifications revealed that the NRC has recently issued amendments to clarify this confusion and to require testing after exceeding 25% power. In addition, the draft NUREG-1434 on improved Standard Technical Specifications also requires testing after exceeding 25% power.

The plant procedures at the time of discovery did not provide sufficient guidance for the Operators to conclude that jet pump testing was required within 24 hours of entry into Mode 2. The procedures and plant practices, however, were adequate to satisfy the previous understanding that testing only need be performed prior to 25% power and every 24 hours thereafter.

B. Further Corrective Action

1. In order to ensure that the Technical Specification requirements are met, several procedures will be deviated to provide additional clarification regarding Technical Specification applicability.
2. A Technical Specification Amendment Request will be submitted to change the Specification to require testing of the jet pumps within 12 hours after exceeding 25% of rated thermal power and every 24 hours thereafter.
3. As documented in WNP-2 LER 91-013-02, a Quality Action Team has been authorized to address potential improvements in Technical Specification compliance at WNP-2.

Safety Significance

This event was not safety significant since the jet pumps were determined, through testing, to be operable. In addition, recent license amendments issued by the NRC support the technical basis for, and require, performance of jet pump operability testing after exceeding 25% power. The draft NUREG-1434 on improved Standard Technical Specifications also requires jet pump testing after exceeding 25% power.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

Similar Events

There have been previous instances of reportable events resulting from changes in the way a Technical Specification is interpreted. LER 91-002 documented a case where jet pump testing did not meet the requirements imposed by a literal reading of the Technical Specification in that Specification 3.4.1.2 requires jet pump operability testing be performed "when both recirculation loops are operating at the same flow control valve position." The testing had been performed with matching reactor recirculation loop flows instead of matching flow control valve positions. The procedure was changed to achieve compliance, and a Technical Specification Amendment Request was submitted to allow testing with matching flows. LER 91-013 documented a situation where the Specifications required testing of RTDs and thermocouples. This testing is not physically possible. In response to the Technical Specification deviations identified in 91-013 and other recent LERs, a Quality Action Team will address Technical Specification compliance and methods to ensure compliance.

EIIS InformationText Reference

Jet Pump

EIIS ReferenceSystem Component

AD

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