Portland General Electric Company
Trojan Nuclear Plant
71760 Columbia River Hwy.
Rainier, Oregon 97048
(503) 556-3713

WRR-095-90
October 11, 1990

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington DC 20555

Gentlemen:

Licensee Event Report No. 90-27, Revision 1 is attached. This report updates an event in which Containment isolation valves were inadvertently not included in the procedure for surveillance of Containment isolation valve positions.

Sincerely,

W. R. Robinson
General Manager
Trojan Nuclear Plant

c: Mr. John B. Martin
Regional Administrator, Region V
U.S. Nuclear Regulatory Commission

Mr. David Stewart-Smith
State of Oregon
Department of Energy

Mr. R. C. Barr
USNRC Resident Inspector
Trojan Nuclear Plant

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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Trojan Nuclear Plant	0 5 0 0 0 3 4 4	1 OF 0 5

TITLE (4) Inadequate Implementation of a Programmatic Change in How a Technical Specification Surveillance was to be met Results in a Missed Surveillance due to an Inadequate Procedure

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)
									NA	0 5 0 0 0
0 7	1 7	9 0	9 0	0 2 7	0 1	1 0	1 1	9 0		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
1 0 0		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		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
	AREA CODE
John D. Guberski, Compliance Engineer	5 0 3 5 5 6 - 5 5 2 3

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
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On July 17, 1990, the Plant was in Mode 1 (Power Operation) with a generator load of 1140 MWe. During a review of a Plant procedure, Plant Systems Engineering personnel identified that the monthly surveillance required by Trojan Technical Specification (TTS) 4.6.1.1, "Primary Containment - Containment Integrity" did not include six valves associated with the Containment penetration boundary for the Steam Generator Blowdown System. One drain valve had not been included in the Plant procedures used to perform the required surveillance due to inadequate implementation of a 1988 programmatic change which added all vent, test, and drain valves within the Containment penetration boundary to the list of valves requiring TTS 4.6.1.1 surveillance. The other five valves are located outside of the first motor-operated Containment isolation valve for a closed system inside Containment. The Containment isolation design basis for this closed system is one valve outside Containment, except when two valves are required to meet single failure criteria. These five valves should have been included in the surveillance since the motor-operated valve could fail to operate. Corrective action was to place these six valves in the procedure which is used to perform the TTS 4.6.1.1 required surveillance. Two additional valves were added for human factors considerations. Additional corrective actions will be to verify that valves that are part of the Containment penetration boundary are included in appropriate surveillance procedures. Initially this review will be done using design drawings, with a physical walkdown of the Containment penetrations completed by September 30, 1991. The six valves are placed in the closed position when placing the systems involved (Steam Generator Blowdown and Nitrogen Gas) in service. Therefore, this event did not cause a significant degradation of operational safety nor have any effect on public health and safety.

DESCRIPTION OF OCCURRENCE

On July 17, 1990, the Plant was in Mode 1 (Power Operation) with a generator load of 1140 MWe. During a review of a Plant procedure, Plant Systems Engineering personnel determined that Steam Generator Blowdown System Drain Valve SG-159 needed to be included in a monthly surveillance of valve position to satisfy the requirements of Trojan Technical Specification (TTS) 4.6.1.1, "Primary Containment - Containment Integrity". See Figure 1 for the location of Valve SG-159. The Plant procedure [Periodic Operating Test (POT) 3-3, "Containment Penetration Valve Inservice Test] used to perform this required surveillance, for valves not locked in position, did not list SG-159 as a valve to be checked. As SG-159 was also not on the locked valve list, Plant Systems Engineering personnel identified that the monthly surveillance of SG-159, required by TTS 4.6.1.1.a.1, had not been performed since the installation of this valve during the 1988 refueling outage. During the review of this event, it was also identified that one other Steam Generator Blowdown System drain valve (SG-161), as well as Nitrogen System isolation valves (GS-169, GS-171, GS-173, and GS-175) to the Steam Generator Blowdown System were not included in POT 3-3 (See Figure 1 for valve locations). This is a condition prohibited by the TTS and is being reported in accordance with the requirements of Title 10 of the Code of Federal Regulations, Part 50.73 (a)(2)(i)(B).

CAUSE OF OCCURRENCE

As described in Licensee Event Report (LER) 88-04, Portland General Electric Company implemented a programmatic change which added all vent, test, and drain connections within a Containment penetration boundary to the surveillance procedure which implemented TTS 4.6.1.1. The Piping and Instrumentation Diagrams, among other drawings, were used to identify valves which needed to be added to POT 3-3 to implement this programmatic change.

Steam Generator Blowdown System Drain Valve SG-159 was added to the Steam Generator Blowdown System as part of a design modification during the 1988 refueling outage. The revision of POT 3-3 to implement the programmatic change occurred in the same time frame as the performance of the modification and issuance of the revised Piping and Instrumentation Diagram showing Valve SG-159. The Plant Systems Engineering personnel revising POT 3-3 used the then current approved drawings and apparently were not aware of the design modification being installed during the 1988 refueling outage which would change the design drawing. Plant Systems Engineering personnel who reviewed the design modification, using drawings approved for construction, may not have been aware of the programmatic change under development at the time of their review of the modification.

Therefore, the cause of the missed surveillance for SG-159 was inadequate implementation of a programmatic change in how a surveillance requirement was to be met. The implementation of this programmatic change did not include a review of design modifications being installed during the 1988 refueling outage to determine if the modification affected a Containment penetration boundary.

The five other motor-operated valves (SG-161, GS-169, GS-171, GS-173, and GS-175) were not included in the revision of POT 3-3 which implemented the programmatic change due to these valves being located outside of the first Containment isolation valve for a closed system inside Containment. Review of the description of Containment isolation for the Steam Generator Blowdown System leads to the conclusion that, for this closed system inside Containment, the first valve outside of Containment is the penetration boundary. However, as this first motor-operated valve outside Containment receives only a Train A Containment isolation signal, a second valve in series with the first motor-operated valve is needed to meet single failure criteria. Therefore, it was determined that these five additional valves should be added to the surveillance requirements.

CORRECTIVE ACTIONS

Valves SG-159, SG-161, GS-169, GS-171, GS-173, GS-175 were added to POT 3-3. SG-160 and SG-162, although not required for Containment boundary isolation, were also added to POT 3-3 for human factors considerations. Revision 0 to this LER incorrectly identified that 12 valves had been added to POT 3-3 as a corrective action. A cognitive personnel error was made in not ensuring that the LER correctly reflected the procedure revision.

A review of the drawings for Containment penetrations will be performed by October 31, 1990 to ensure that vent, test and drain valves within a Containment penetration boundary are listed in either POT 3-3, or Administrative Order 3-13, "Control of Locked Valves and Switches". This review will include the isolation design basis for the Containment penetration.

The walkdown performed for the Containment Design Basis Document review, will verify that all vent, test and drain valves physically within a Containment penetration boundary are listed in either POT 3-3, or Administrative Order 3-13. This review will be completed by September 30, 1991.

The current design change process requires that the design modification package be reviewed by Plant departments to identify needed procedure changes. Any field changes are routed to the same departments. Applicable departments are represented at the turnover walkdown of each modification to ensure all aspects of the modification are ready for turnover to Operations.

SIGNIFICANCE OF OCCURRENCE

The Operating Instruction for the Steam Generator Blowdown System places the drain valves in the closed position as part of preparing the system for operation. Also, the outlet line from these valves is capped. As the Steam Generator Blowdown System is normally in operation to control Steam Generator chemistry, leakage from the drain line due to valve seat leakage or the valve being in the open position would be detected by Operations personnel during routine tours of the Plant. The Operating Instruction for the Nitrogen System places the isolation valves of concern in the closed position as part of preparing the system for operation. Therefore, this event did not cause a significant degradation of operational safety nor have any effect on public health and safety.

PREVIOUS SIMILAR EVENTS

A review of Trojan Nuclear Plant License Event Reports submitted since 1987 was performed. This review identified three previous Licensee Event Reports involving missed surveillances due to inadequate procedures. The numbers and titles of those events are listed below.

LER No.	Title
88-04	Containment Penetrations not Verified Closed as Required by Technical Specification..
88-13	Component Cooling Water Valve Positions Not Verified as Required By Technical Specification Surveillance Requirements.
89-28	Personnel Error in Preparing Procedure Results in Missed Rod Position Surveillance.

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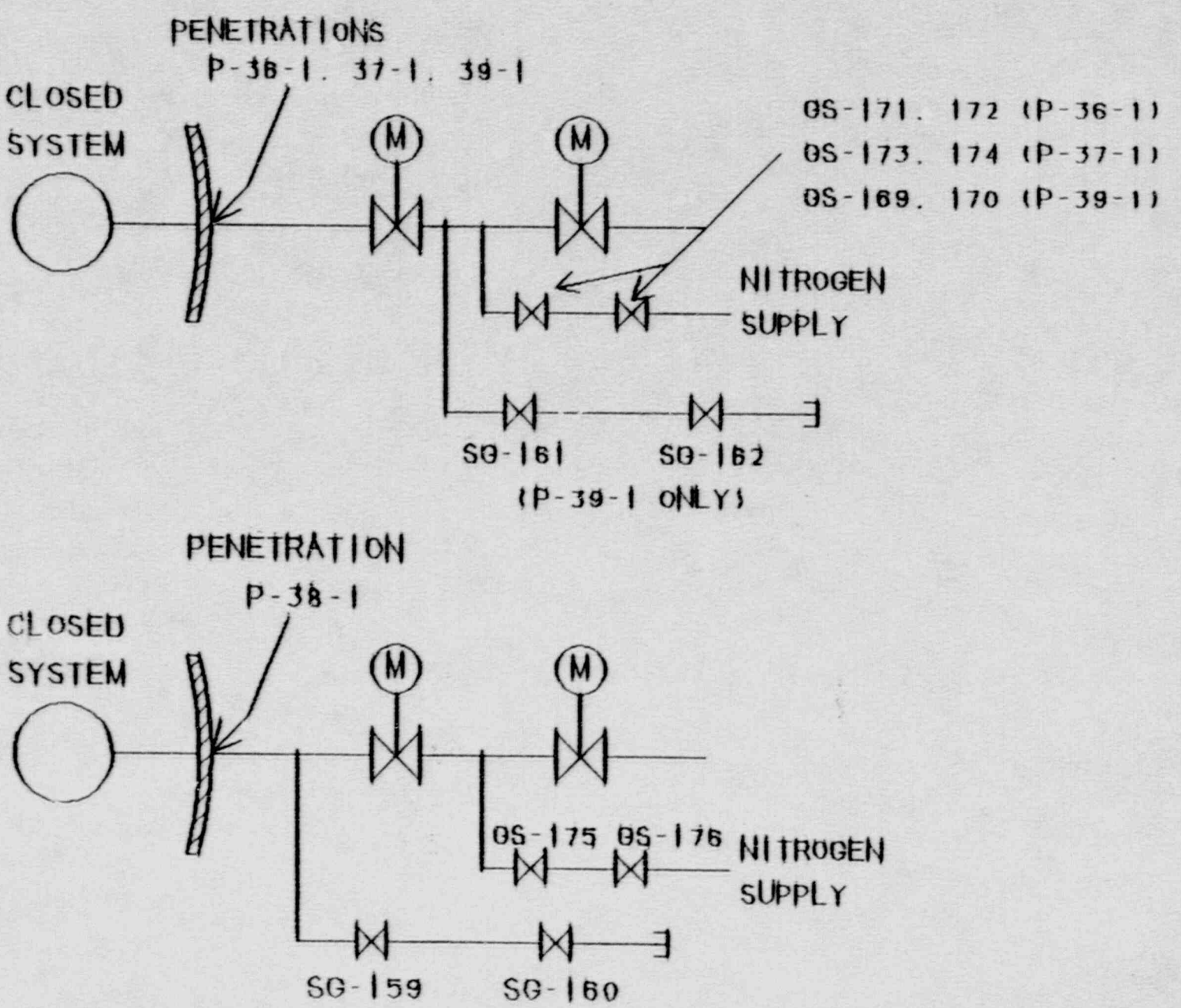
PENETRATIONS
P-36-1, 37-1, 39-1
CLOSED
SYSTEM
M
M
OS-171, 172 (P-36-1)
OS-173, 174 (P-37-1)
OS-169, 170 (P-39-1)
NITROGEN
SUPPLY
SG-161
SG-162
(P-39-1 ONLY)
PENETRATION
P-38-1
CLOSED
SYSTEM
M
M
OS-175 OS-176
NITROGEN
SUPPLY
SG-159
SG-160