



Portland General Electric Company

Bart D. Withers Vice President

August 16, 1982

Trojan Nuclear Plant
Docket 50-344
License NPF-1

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Eisenhut:

TROJAN NUCLEAR PLANT
NUREG-0737 TMI Action Items

The following is the status of three NUREG-0737 TMI Action Items and PGE response to the NRC's letter of June 17, 1982 regarding TMI Action Item II.K.3.17 ECCS Outage Report. This information is submitted to supplement PGE letters to the NRC dated April 28 and June 11, 1982.

Action Item II.D.1.3 - Block Valve Test Program

In response to NUREG-0737, Item II.D.1.3, "Qualification of Block Valves", the information package describing the utilization and performance of block valves in PWR plants was submitted to Mr. H. R. Denton by Mr. R. C. Youngdahl's (Consumer Power Company) letter of June 1, 1982. The information package included the EPRI report entitled "EPRI/Marshall Electric Motor Operated Valve (Lock Valve) Interim Test Data Report" and the Westinghouse report entitled "EPRI Summary Report: Westinghouse Gate Valve Closure Testing Program". These two reports adequately cover the information requested in NUREG-0737, Item II.D.1.3 and thus satisfy the required action by PGE.

Action Item II.F.1.5 - Containment Water Level Indicators

The Containment water level wide-range and narrow-range indicators have been installed and are operational at Trojan. As discussed in the PGE letter of April 28, 1982, the transmitters for the wide-range indicators were installed with 188-in. span due to limited availability of location. A detailed evaluation was conducted to determine the measurable volume of water at this location. The evaluation concluded that the instruments

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located at the 188-in. level above the bottom of the Containment sump (Elevation 42 ft) can measure Containment water volume as high as 799,000 gal. This is 199,000 gal above the required measurement range in NUREG-0737 and approximately 287,000 above the maximum anticipated Containment water volume as analyzed in the Trojan FSAR Section 15.4. Therefore, although it was originally committed to raise the instruments to the 200-in. level during the 1982 refueling outage, the instruments need not be relocated. The Containment water level indicators at Trojan already comply with the NRC requirements in NUREG-0737.

Action Item II.F.2 - Instrumentation for Detection of Inadequate Core Cooling

A majority of construction work for the Reactor Vessel Level Indication System (RVLIS) has been completed except electrical modifications, system startup testing, calibrations and freeze protection on sensing lines. The electrical modifications include an additional review of the RVLIS design and possible modifications in electrical cabling to meet channel separation criteria. These modifications will be completed before the RVLIS is made officially operational. Nevertheless, the RVLIS will be activated upon startup of Cycle 5 power operation only for testing and data collection of the system as discussed with your staff. The system will neither be used for Plant operation by operators nor be addressed in the Emergency Instructions for operators use. Before the RVLIS can provide useful information to operators, extensive testing has to be conducted (ie, periodic monitoring and data collection of the RVLIS operation, system calibration checks and functional tests). We will be conducting these tests during Cycle 5 Plant operation until the scheduled refueling outage in 1983. In addition to a thorough evaluation of the Plant test data, the final safety evaluation has to be satisfactorily completed to demonstrate that no unreviewed safety questions are involved in the RVLIS operation and use by operators. The RVLIS will neither be made officially operational, nor be utilized by operators until this safety evaluation is completed.

Action Item II.K.3.17 - Report of Outages of ECCS

The NRC's letter of June 17, 1982 requested additional information regarding outages of the emergency diesel generator (EDG) system as part of NUREG-0737 TMI Action Item II.K.3.17 ECCS Outage Report. Attached is a summary table of historical outages of the EDG system. This table covers the period between November 23, 1975 (initial fuel loading) to December 3, 1980 to be consistent with the reporting period for other ECCS

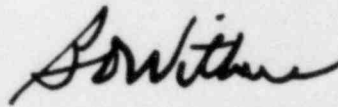
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components provided in PGE's letter of January 2, 1981. The information contained in the table was obtained from the Trojan Plant Control Room Operating Logs, Equipment History Files, Periodic Operating Test Data Sheets, and Maintenance Procedure Data Sheets.

Applying the same review criteria in PGE's letter of January 1, 1981, the scope of this review was limited to the EDG outages during Modes 1 through 4, when less than two operable EDGs would require a Technical Specification Action. During Modes 5 and 6, only one EDG is required to be operable by the Trojan Technical Specifications and a review of Plant records indicated that at least one EDG was always operable in these modes. Outage times less than 1/2 hr were excluded from the table since the cumulative outage time is negligible. As specified in Table 2 in PGE's letter of January 1, 1981, the DBA sequencers of the ECCS are tested on an alternate basis every week for approximately 1 hr, placing the EDGs in "Maintenance Lockout". These tests are not included in the summary table.

Sincerely,



Bart D. Withers
Vice President
Nuclear

Attachment

c: Robert A. Clark
U. S. Nuclear Regulatory
Commission

Lynn Frank
State of Oregon
Department of Energy

TROJAN NUCLEAR PLANT - EMERGENCY DIESEL GENERATOR (EDG) OUTAGES

Train	Date From/To	Duration Hours	Cause	Corrective Action
B	12/07/75 - 0630 12/07/75 - 1752	11.4	Inoperable jacket water immersion heater	Replaced heater
B	12/08/75 - 1040 12/08/75 - 1535	4.9	Air supply fans rotating in wrong direction	Switched A and B phase leads
A	12/10/75 - 1730 12/10/75 - 1920	1.8	Low diesel fuel oil day tank level	Restored to proper level
A	12/11/75 - 0940 12/11/75 - 1125	1.8	Inaccurate diesel fuel oil day tank level indication	Repaired
B	12/16/75 - 0030 12/17/75 - 0130	25.0	'B' Train service water out for maintenance	Completed maintenance
A	12/17/75 - 0135 12/18/75 - 0155	24.3	'A' Train service water out for maintenance	Completed Maintenance
B	01/07/76 - 0928 01/07/76 - 1643	7.3	Jacket Cooling Water System design modification	Completed modification
A	03/01/76 - 1215 03/01/76 - 1615	4.0	Inaccurate speed indication	Replaced indicator
B	04/13/76 - 1645 04/13/76 - 2328	6.7	Jacket water pressure switch problem	Repaired pressure switch
A	09/28/76 - 0710 09/28/76 - 2320	16.2	Preventative maintenance	Completed maintenance
B	09/30/76 - 0750 09/30/76 - 2245	14.9	Preventative maintenance	Completed maintenance
B	10/13/76 - 0735 10/13/76 - 1627	8.9	Air boxes dirty	Cleaned air boxes, changed air filter

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Trojan Nuclear Plant - Emergency Diesel Generator (EDG) Outages (Continued)

Train	Date From/To	Duration Hours	Cause	Corrective Action
B	12/02/76 - 0630 12/02/76 - 1320	6.8	Lube oil heaters inoperable	Replaced fuse
A	03/22/77 - 0500 03/22/77 - 1825	13.4	Local panel light socket broken	Repaired socket, replaced fuse
A	04/07/77 - 1045 04/08/77 - 0115	14.5	Lube oil system leaks	Replaced gaskets and repaired leaks
B	04/11/77 - 1445 04/11/77 - 2305	8.3	Service water strainer repair	Repaired strainer
A	04/13/77 - 1025 04/14/77 - 2200	35.6	Preventative maintenance	Completed maintenance
B	04/19/77 - 0600 04/21/77 - 2220	64.3	Preventative maintenance	Completed maintenance
A	06/09/77 - 1500 06/09/77 - 2215	7.3	Jacket water immersion heater circuit modification	Completed modification
A	06/22/77 - 1905 06/22/77 - 2230	3.4	Governor differential alarm	Repaired governor and adjusted fuel injection racks
A	07/12/77 - 0931 07/13/77 - 1655	30.6	Jacket cooling water system design modification	Completed modification
B	09/19/77 - 1035 09/19/77 - 1305	2.5	Engine drawing excessive current	Replaced grounded jacket water immersion heater
A	10/26/77 - 0740 10/26/77 - 1620	8.6	Preventative maintenance	Completed maintenance
B	10/31/77 - 1130 10/31/77 - 1700	5.5	Cooling water system Chemistry out-of-specification	Completed chemical addition

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Train	Date From/To	Duration Hours	Cause	Corrective Action
B	12/05/77 - 1000 12/05/77 - 1630	6.5	Preventative maintenance	Completed maintenance
B	12/06/77 - 1530 12/06/77 - 2200	6.5	EDG failed to shutdown	Replaced shutdown solenoid terminal leads
B	12/13/77 - 1320 12/13/77 - 1630	3.2	Possible loose governor terminals	Recrimped and secured terminals
A	12/14/77 - 0820 12/14/77 - 1105	2.8	Possible loose governor terminals	Recrimped and secured terminals
B	01/23/79 - 0936 01/24/79 - 1730	31.9	Install new trouble alarm	Completed alarm installation
A	01/26/79 - 0740 01/26/79 - 1110	3.5	Install new trouble alarm	Completed alarm installation
B	01/15/80 - 0810 01/15/80 - 2010	12.0	Jacket cooling water system leak	Reduced leak
B	01/16/80 - 1145 01/18/80 - 2255	58.2	Jacket cooling water system leak	Replaced jacket water cooler
B	03/11/80 - 1845 03/11/80 - 2315	4.4	High scavenging oil pump discharge pressure	Replaced filters
A	11/04/80 - 0820 11/04/80 - 1545	7.4	Preventative maintenance	Completed maintenance
B	11/24/80 - 0915 11/24/80 - 1910	9.9	Preventative Maintenance	Completed maintenance

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Trojan Nuclear Plant - Emergency Diesel Generator (EDG) Outages (Continued)

Train	Date From/To	Duration Hours	Cause	Corrective Action
B	11/25/80 .. 0731 11/25/80 - 1615	8.7	Preventative maintenance	Completed maintenance
B	11/25/80 - 1616 11/27/80 - 0405	35.8	Found generator lockout relay tripped on 11/27	Reset lockout relay

TOTAL CUMMULATIVE OUTAGE DURATION

'A' EDG 175.2 Hrs

'B' EDG 343.6 Hrs

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