

HENRY PRATT COMPANY

creative engineering for fluid systems

401 SOUTH HIGHLAND AVENUE · AURORA, ILLINOIS 60607

May 23, 1985

Mr. James G. Keppler, Director
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Rd., Building 4
Glen Ellyn, IL 60137

Dear Mr. Keppler:

The attached Bechtel Power Corporation letter (Attachment 1) dated May 7, 1985 and Deficiency Evaluation Report No. 84-101 request that Henry Pratt Company provide information to the NRC required by 10CFR21.21(b)(3) Subpart (vi) regarding the number and location of such components supplied to other facilities.

The attached list (Attachment 2) includes all known utilities and purchase orders with Pratt Nuclear Model valves with Limitorque operators, irrespective of operator orientation, based on review of records since 1972.

The occurrence in Bechtel Report No. 84-101 is similar to that reported in NRC IE Circular No. 80-12. Henry Pratt Company recommends a supplement to IE 80-12 be issued noting that when actuators of any type and manufacture are removed from Pratt valves and reinstalled in the field for any reason such as ease of installation, reorientation, examination, repair, replacement, etc., that Loctite Grades AV, 271, or 277 should be applied to all four sides of key prior to reassembly of the valve/actuator combination to secure the connection.

Pratt will provide an Information Letter to the listed utilities providing instructions regarding application of Loctite to valve keys when actuators are removed and reinstalled.

Very truly yours,

Bruce R. Cummins

B. R. Cummins
Quality Assurance
Manager

BRC/np

Enclosures

CC: A. K. Wilson, HPCO
R. D. Nelson, HPCO
W. G. Bingham, Bechtel Power Corp.
re: B/HP-E-51078
MOC 380678

Daniel Warsing, Limitorque

Bechtel Power Corporation

Engineers — Constructors

12440 East Imperial Highway

Norwalk, California 90650

MAIL ADDRESS

P.O. BOX 60860 - TERMINAL ANNEX, LOS ANGELES, CALIFORNIA 90060

TELEPHONE: (213) 807-2000



RECEIVED

MAY 13 1985

ENGINEERING DEPT.

B/HP-E-51078

MOC 380656

May 7, 1985

Henry Pratt Company
401 South Highland Avenue
Aurora, Illinois 60507

Attention: Mr. R. B. Cummins
Quality Assurance Manager

Subject: Arizona Nuclear Power Project
Bechtel Job 10407
DER 84-101 - Nuclear Service
Butterfly Valves
File: 13-JM-605

Dear Mr. Cummins:

Enclosed is a copy of the Bechtel PVNGS Project Final Deficiency Evaluation Report 84-101. As indicated in the Analysis of Safety Implications of the report, the project has evaluated this condition as reportable under 10CFR21.21(b) (3) and addresses the reporting requirements of the regulation with the exception of subpart (vi), regarding the number and location of such components supplied to other facilities. The information in this report is expected to be transmitted to the Nuclear Regulatory Commission Region V by Arizona Public Service Company.

The copy of the project report is for your review and action to provide the information required by subpart (vi) of the regulation to the NRC. Please advise us of your action by May 24, 1985.

Very truly yours,

BECHTEL POWER CORPORATION


W. G. Bingham
Project Engineering Manager
Western Power Division

WGB:KWK:lou

Enclosure: Deficiency Evaluation Report No. 84-101 (2 pages, 1 copy)

cc: E. E. Van Brunt, Jr.	D. B. Fasnacht
J. D. Houchen	O. J. Zeringue
J. E. Kirby	APS/DDC
J. R. Bynum	All w/o enclosure

PROJECT FILE D.4.33

 WESTERN POWER DIVISION	PALO VERDE NUCLEAR GENERATING STATION PROJECT EVALUATION - DEFICIENCY EVALUATION REPORT JOB NO. 10407		REPORT NO. <u>84-101</u>		
			REV./DATE <u>1/24AP85</u>		
PREPARED BY <u>K. Soteropoulos</u> NAME		<u>4/25/85</u> DATE	Q. CLASS <u>Q</u>	UNIT <u>1,2,3</u>	REFERENCE DOCUMENTS <u>NCR SP-5316</u> <u>SWA 26883</u>
PROJECT EVALUATION <input type="checkbox"/> INTERIM REPORT <input checked="" type="checkbox"/> 50.55(c) FINAL REPORT <input type="checkbox"/> PART 21 REPORT					
TITLE: CONTAINMENT PURGE SYSTEM VALVES					
I. <u>CONDITION DESCRIPTION</u>					
<p>During testing of the containment purge system, valve 1J-CPE-UV-0005B failed to open, but the operator local and remote indication showed the valve to be open. Investigation under Bechtel Startup Work Authorization (SWA) No. 26883 found that the driven gear on the valve shaft had become disengaged from the shaft. This valve, including its Limitorque operator, is supplied by Henry Pratt Company under project Specification 13-JM-605.</p>					
II. <u>EVALUATION</u>					
<p>The valve driven gear spline adapter and key are supposed to be secured to the Limitorque operator drive shaft by a force fit together with the use of Loctite Grade AV 271, or 277. It is not known whether Loctite had been used on this specific valve.</p>					
<p><i>results:</i> Investigation Requests (IRs) 1, 2, 3 IR-050 were initiated to inspect all other Henry Pratt valves which have Limitorque operators oriented with the motor at the bottom. The results of the inspection are as follows:</p>					
<p>Unit 1 - Three valves (1JCPBUV-003B, 1JEWA-UV-65, 1JEWAUV-145) did not have their operators secured with Loctite.</p>					
<p>Units 2 and 3 - The operators of all valves were properly secured with Loctite.</p>					
<p>The lack of Loctite is due to one of the following conditions:</p>					
<p>a) Failure to apply Loctite during assembly at the factory.</p>					
<p>b) Failure to reapply Loctite during subsequent disassembly and reassembly in the field.</p>					
IDENTIFY CALCULATION OR OTHER DESIGN DOCUMENT WHICH WILL BE INITIATED OR REVISED TO SUPPORT THIS EVALUATION.			SAR IMPACT <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
DOCUMENT TITLE, NUMBER, AND REVISION AND FORECAST COMPLETION DATE			NGS <u>4/25/85</u> DATE		
PEM EVALUATION AND REPORTABILITY RECOMMENDATION			<input checked="" type="checkbox"/> REPORTABLE <input type="checkbox"/> NOT REPORTABLE		
<u>Mahlmeister</u> PEM			<u>4/25/85</u> DATE		

Report No. 84-101

Rev./Date: 1/24AP85

Page 2 of 2

Final Report

There is no record of these valves having been disassembled in the field; however, if disassembly had occurred, there is no procedure in the vendor's instruction manual (J605-162-2) requiring the application of Loctite after disassembly. Consequently, the root cause of this deficiency is attributable to the lack of vendor instructions.

Failure of the Containment Purge System Valve to operate would prevent the valve from closing on Containment Isolation Actuation Signal (CIAS) and Containment Purge Isolation Actuation Signal (CPIAS) signals. Consequently, an excessive release of radioactivity from the containment could occur during certain operating conditions.

III. REPORTABILITY ASSESSMENT

Based upon the above, this condition is evaluated as reportable under 10CFR Part 50.55(e) and Part 21, since, if left uncorrected, it would constitute a significant safety hazard. This report addresses the reporting requirements of the regulation with the exception of subpart (vi) regarding the number and location of such components supplied to other facilities.

IV. CORRECTIVE ACTION

- A. The project previously decided to replace valves 1, 2, 3-J-CPB-UV005B with pneumatic operators per DCPs 10J-CP-023, 2SJ-CP-023 and 3CJ-CP-023, as part of the licensing commitment. The Unit 1 work was completed prior to Mode 3, and the work for Units 2 and 3 will be completed prior to their respective fuel loads.
- B. The three defective valves in Unit 1 (1JCPBUV-3B, 1JEWAUV-65, 1JEWAUV-145) were reworked using Loctite per 1IR-050, and the valve inspections in Units 2 and 3 per 2, 3 IR-050 required reassembly with Loctite.
- C. Bechtel Engineering will initiate an SDN to revise the vendor instruction manual (J605-162-2) to specify the use of Loctite during reassembly in the field.
- D. By copy of this report, the Henry Pratt Company will be notified of the Part 21 reportability of this condition.

<u>Utility</u>	<u>Qty.</u>
Northeast Utilities/Millstone P.O. 2362-200-164	51
Alabama Power/Farley P.O. FNP-279, FNP-243, FNP-315, FNP-265	119
Bechtel/Korea 5&6 P.O. 12045-3-J-605	70
Royce/Korea 5&6 P.O. 12952 (No N-stamp)	14
Duquesne Light/Beaver Valley P.O. 2BV-76	57
Cleveland Electric/Perry P.O. P-1248K	14
Florida Power & Light/St. Lucie P.O. NY-422237, NY-422537, F10-2998	89
TVA-Stride Hartsville & Phipps Bend P.O. 77K25-820750-1	113
TVA - Balance of Plant P.O. 77K35-821984-1	57
Consumers Power/Midland P.O. 7220-M-168-AC, 7220-M-132-AC	109
TVA - Dravo - Watts Bar P.O. E2898-HPN-1, E2897-HPN-2	115
Mississippi Power & Light/Grand Gulf P.O. 9645-M-258.0	107
Arizona Public Service/Palo Verde P.O. 10407-13-JM-605	105
Cincinatti Gas & Electric - Zimmer P.O. 2203	4
Georgia Power Hatch P.O. PEH2-603	9
Long Island Lighting - Shoreham P.O. 310546	29
Jersey Central P&L/TMI 2 P.O. C-0081	1
TVA Sequoyah P.O. 76K33-820308	4

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Commission Federal de Electricidad/
Laguna Verde (Mexico)
P.O. LV/13006

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South Carolina Electric & Gas/
Virgil Summer
P.O. SN-10200

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TOTAL

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