

Log # TXX-89250 File # 10119 Ref. # IEB 83-05

June 14, 1989

William J. Cahill, Jr. Executive Vice President

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) DOCKET NOS. 50-445 AND 50-446 IE BULLETIN 83-05: ASME NUCLEAR CODE PUMPS AND SPARE PARTS MANUFACTURED BY HAYWARD TYLER PUMP COMPANY (HTPC)

REF: TUGCO Letter from Mr. R. J. Gary to Mr. R. C. DeYoung of USNRC dated August 10, 1983, TXX-4024

Gentlemen:

The referenced letter provided the CPSES response to IE Bulletin 83-05, "ASME Nuclear Code Pump and Spare Parts Manufactured by Hayward Tyler Pump Company".

Based on a recent review of this response, TU Electric hereby provides the following additional information to clarify the expanded commissioning tests, spare parts commitments, and Inservice Testing plans for the Station Service Water Pumps.

1) IEB 83-05, Item 1b

Provide a summary of the inservice test requirements or plans to develop inservice test requirements for each affected pump at your facility.

CPSES Revised Response to Item 1b

The Inservice Test (IST) program for Unit 1 station service water (SSW) pumps meets the requirements of ASME Section XI Articles IWP-1000 through 6000 including Table IWP-3100 as modified by the following requests for relief. Relief from the requirement to measure inlet pressure, relief from the requirement to observe lubricant level or pressure, and relief from the requirement for bearing temperature measurement for inaccessible bearings was requested in revision 1 of the program and approved by the NRC staff. Relief from the requirement of measurement of vibration amplitude has been requested in revision 2 of the IST program which was transmitted to the NRC by TXX-89050 dated March 3, 1989. The Unit 2 IST program will be submitted for NRC review after Unit 2 activities are resumed.

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4.

Discussion

This portion of our revised response describes additional relief requests which were submitted to the NRC via separate correspondence. Since TU Electric's ASME code commitments have not changed, a revised response to this item is not required but is included for completeness.

2) Summary of IEB 83-05, Item c (See Attachment-2, Item b)

Perform pump alignment. At normal, minimum and runout flow, perform head check, vibration measurement, packing gland temperature check, motor current check, and leakage check. Perform pump rundown check and evaluate results of above testing.

CPSES Additional Response to Item 1c

For the CPSES Unit 1 SSW pumps, the head check, vibration measurement, and leakage check were performed at the SSW Pumps normal flow only. Proper packing gland leakage (at normal flow) was verified rather than measuring packing gland temperature. These tests will be performed for the Unit 2 SSW pumps (at normal flow) during Unit 2 preoperational testing program. TU Electric does not intend to repeat the above test for Units 1 and 2 SSW pumps at minimum and runout flow. The motor current check of the Unit 1 SSW pumps was performed at minimum flow, normal flow, and at the maximum flow attainable with the pump installed in the Station Service Water system. The motor current check of the Unit 2 pumps will also be performed at minimum, normal, and maximum installed flow.

Discussion

TU Electric feels that the tests described above are sufficient to meet the intent of the bulletin for the SSW pumps at CPSES since:

- a) The Service Water system configuration does not permit performance checks at runout flow. Based on performance data provided by HTPC, normal flow is within 12 % of runout flow. TU Electric considers that observation of parameters at normal flow provides an acceptable indication of pump performance
- b) When assessing pump performance, head check and vibration data obtained at minimum flow are not considered to be as significant as data taken at normal flow since, by definition, normal flow represents those conditions which the pump will experience while performing its design function. During normal system operations, the pumps are only operated at minimum flow for brief periods during pump starts.

The pump hydro static test pressure exceeded the minimum flow pressure, and the strength of the mechanical and welded joints is therefore assured. Since the pumps are normally started at minimum flow and are routinely monitored, observations for leak tightness are ongoing. TXX-89250 June 14, 1989 Page 3 of 4

- c) Proper packing gland cooling was established during initial pump operation by adjusting the packing to obtain adequate leakage, rather than by recording gland temperature. This is a commonly used method of assuring adequate gland cooling.
- d) The vibration of running SSW pumps is monitored at nominal six week intervals, exceeding the quarterly monitoring requirements of our IST program. Vibration monitoring of SSW pumps has been in progress for approximately one year. No abnormal indications have been identified and, as described in paragraph e) below, the pumps have an established history of reliable operation. We anticipate that such vibration monitoring will continue throughout the life of the plant although the program details may change as additional experience is accumulated.
- e) The Unit 1 and Unit 2 pumps were initially operated in 1982 and 1986 respectively. Both sets of pumps have been run extensively since their initial operation, exceeding the 48-hour continuous run test specified by the bulletin. A review of the operating and maintenance history of the pumps shows that there have been no significant design, assembly, or installation problems with the pumps since their initial operation.

3) IEB 83-05, Item 2c

Conduct a pump performance test as specified in Item 1c unless it can be demonstrated that the spare part in question will not affect any parameters that are measured or function demonstrated by the test.

CPSES Revised Response to Item 2c

An engineering evaluation of spare parts manufactured by HTPC from 1977 through 1981 has been completed. The spare parts have been classified into two categories.

Parts from category 1 will have an operational test of no less than one hour duration. During this test the data relevant to the maintenance performed and parts replaced will be recorded. This data meets the intent of the requirements as specified in the expanded tests portion of the HTPC Operational Maintenance Instruction Manual. Upon completion of this testing the pump will be considered operable as defined in the CPSES technical specification.

Testing of parts from category 2 will include all category 1 testing and an additional 48-hour performance test per the bulletin requirement. The performance test will assure that the pumps will perform the intended safety function after replacement. TXX-89250 June 14, 1989 Page 4 of 4

Discussion

Our post maintenance retesting procedures specify that certain attributes be verified depending on the type of maintenance performed. The attributes include those listed in HTPC "Expanded Commissioning Test" i.e., alignment, pump head, vibration, packing performance, motor current, leakage (implicit), and pump rundown. However in some instances the method of verifying the attributes differs from the methods described in HTPC "Expanded Commissioning Tests." For example, our procedures specify comparing motor current to nameplate data rather than using motor current for a horsepower calculation. TU Electric considers that differences in methodology between the HTPC "Expanded Commissioning Test" and its procedures are not significant and that the CPSES procedures provide assurance of an adequate re-test.

Sincerely,

William J. Cahill, Jr.

MCP/vld

c - Mr. R. D. Martin, Region IV Resident Inspectors, (CPSES) (3) Attachment to TXX-89250 June 14, 1989 Page 1 of 1

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of) Texas Utilities Electric Company) (Comanche Peak Steam Electric) Station, Units 1 & 2)) Docket Nos. 50-445 50-446

AFFIDAVIT

William J. Cahill being duly sworn, hereby deposes and says that he is Executive Vice President, Nuclear of TU Electric, the Applicant herein; that he is duly authorized to sign and file with the Nuclear Regulatory Commission this additional response to IE Bulletin 83-05, that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

William J. Cahill Executive Vice President, Nuclear

STATE OF TEXAS

Subscribed and sworn to before me, a Notary Public in and for Types, on this 12 day of June, 1989.

Notary Public

My commission expires: 4/9/90.