



Log # TXX-88526  
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Ref. # 10CFR50.55(e)

William G. Council  
Executive Vice President

June 22, 1988

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION  
DOCKET NOS. 50-445 AND 50-446  
CONTROL VALVE BRACKETS  
SDAR: CP-83-08 (FINAL REPORT)

Gentlemen:

On April 23, 1983, we notified you via our report logged TXX-3657 of a deficiency we considered to be reportable involving ASME documentation for welded brackets on vendor supplied valves. Our latest report (logged TXX-7021, dated December 1, 1987) indicated that an update would be provided by January 14, 1988. In discussions with Mr. R. F. Warnick of your office, it was agreed that this date would be extended to fully evaluate this issue. Your letter from Mr. R. F. Warnick to Mr. W. G. Council dated September 11, 1987 requested additional information concerning these valves and brackets and a related Deviation (445/8607-D-01). TU Electric's response to this request has been transmitted to you via TXX-88527, dated June 22, 1988. Our final report on SDAR CP-83-08 is provided below.

#### Background

In 1977, TU Electric ordered flow control valves in a variety of sizes from Fisher Controls. Our purchase specification required that the valves be certified to ASME Section III and seismically qualified. In testing the valves to establish seismic qualification, Fisher determined that certain sizes of the valves exhibited a harmonic response below 33 Hz which could render the valves inoperable during a postulated seismic event. To correct this condition, Fisher and Gibbs and Hill (the CPSES Architect/Engineer at that time) agreed that brackets should be welded to the valve actuator housing to provide snubber attachment points. Four brackets were to be welded to each actuator housing to provide a variety of snubber attachment points. In November of 1978, Gibbs and Hill sent a letter to Fisher indicating that the ASME boundary did not include the brackets; however, the correspondence did not specify what quality requirements were applicable to the brackets and attachment welds. The valves were receipt inspected at CPSES by verifying that Fisher had provided appropriate Certificates of Conformance (C of C) and NPV-1 data for the ASME portion of the assembly.

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Subsequent to installation of the valves, concerns raised by the Authorized Nuclear Inspector resulted in the issuance of Nonconformance Reports (NCRs) M-9575 through -9636 regarding the lack of ASME documentation for the brackets and welds. The NCRs were dispositioned to replace the brackets. TU Electric considered this to be a potentially reportable condition and in April 1983, notified the NRC pursuant to 10CFR50.55(e). That notification indicated that the brackets would be replaced. Subsequent to that notification, the condition was re-evaluated and the NCRs were redispositioned "use-as-is." The redisposition was based on the brackets and welds being outside the ASME boundary. The Fisher valve actuators are non-pressure retaining and do not perform a primary support function of a Code class piping system. The purpose of the seismic restraints is to provide the necessary damping and assure compliance with the seismic design requirements for the valves. As a result, the Fisher supplied C of C was judged to be sufficient documentation for the brackets and welds.

The NRC was not informed of the revised evaluation. In December 1986 the NRC issued a Deviation for failure to meet the commitment to replace the brackets. In the response to the Deviation and in correspondence pertaining to SDAR CP-83-08, TU Electric indicated that the brackets and welds were considered acceptable. In September 1987, the NRC requested further information concerning the basis for TU Electric's position that the bracket welds were acceptable.

TU Electric has determined that the brackets were fabricated and welded in accordance with the Fisher Non-ASME QA program. That program established controls to assure the required material and filler metal were used for bracket fabrication and welding. The program also required that welding be performed by qualified welders in accordance with qualified procedures. In addition to inspecting weld size and length as depicted on the design drawing, inspections were performed by Fisher for attributes such as porosity and undercut; however, quantitative acceptance values for those bracket weld attributes were not provided.

#### Corrective Action for Valve Brackets and Welds

In order to upgrade the workmanship of the welds, TU Electric will replace these brackets that are in use as snubber attachment points on safety-related Fisher control valves. The quality of the seismic restraint shall be maintained as noted below.

- Valve actuator brackets - The brackets shall be fabricated from ASME Section III material.
- Snubbers - The snubbers provided shall meet the applicable design requirements of ASME Code Class 1.

- Welding - The welding activities including weld filler material related to the replacement brackets shall meet the applicable rules of ASME Section IX. Welding and weld inspection shall be performed and documented per ASME Construction and Quality Procedures.
- Design - The design of the seismic restraints meets the requirements of NF supports.

The seismic restraints will not be certified as NF supports and therefore will not be identified on a N-5 code data report as a code class item. Replacement of the Unit 1 and common brackets is expected to be complete by December 1, 1988. Replacement of the Unit 2 brackets will be complete by Unit 2 fuel load.

#### Programmatic Corrective Action

In 1980, the overview of procurement activities was transferred from Gibbs & Hill to TU Electric. Since that time significant improvements have been made in our procurement engineering and procurement Quality Assurance programs. These improvements provide assurance that: 1) procurement documents adequately specify the Quality Assurance and acceptance criteria that are to be applied to the purchased items and 2) Vendor Quality Assurance programs are fully evaluated and adequate source inspections are performed. Specific elements of our programs are as follows:

- a) Review of safety-related procurement documents by both discipline and procurement engineers to assure appropriate codes and standards are specified.
- b) Review of safety-related procurement documents by Quality Assurance to assure the appropriate quality assurance requirements are specified.
- c) Development of comprehensive and detailed Vendor Inspection checklists prepared by engineering personnel, and reviewed and approved by Quality Assurance.
- d) Establishment of a formalized vendor evaluation program including periodic re-evaluations.

The CPRT evaluated the current CPSES procurement program and implementation per ISAP VII.a.9. The CPRT concluded the current program adequately conforms to the requirements of 10CFR50, App. B, the applicable ANSI N45.2 standards, and the applicable sections of FSAR Chapter 17.

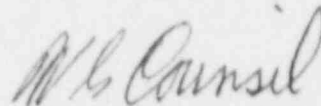
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Safety Significance

An analysis was performed to determine if the brackets would have performed their intended safety function during a seismic event. An as built inspection of the welds was performed using NCIG (Nuclear Construction Issues Group) Visual Weld Acceptance Criteria. No credit was taken for any weld segment not meeting this criteria. The remaining weld segments were analyzed against the worst case seismic loads. The analysis demonstrated that the worst case seismic condition would not have resulted in failure of the welds. The results of this analysis are consistent with the overall ISAP VII.a.9 assessment of the adequacy of procured items.

Based on the results of our worst case seismic analysis and ISAP VII.a.9, TU Electric no longer considers the condition described in SDAR CP-83-08 to be a reportable deficiency as defined by 10CFR50.55(e). Records supporting our position are available for your Inspectors review at the CPSES site.

Very truly yours,



W. G. Council

JCH/grr

c-Mr. R. D. Martin, Region IV  
Resident Inspectors CPSES (3)