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TUELECTRIC

February 13, 1992

William J. Cahill, Jr.
Group Vice President

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
YOKE TO BONNET BOLTING MATERIAL,
COPES VULCAN VALVES
10CFR21 REPORT P21R-92-002

Gentlemen:

On January 16, 1992, TU Electric notified the NRC of an issue regarding Copes Vulcan valves via facsimile. Although no substantial safety hazard exists at CPSES, TU Electric is reporting this issue to the NRC because it could affect other facilities.

Attached is the report which satisfies the reporting requirements of 10CFR21. The report has been formatted in a manner that corresponds to the specific information requests by subparts (i) through (viii) of paragraph 21.21(c)(4) of the regulation. This is exclusive of that portion of subpart (vi) regarding names and locations of other facilities which may be affected, as this information is not known to TU Electric with the exception of the Licensee Event Report submitted by Haddam Neck, and subpart (viii) in its entirety regarding the advice that has been or will be given to other facilities. Such advice would be dependent on the facility specific use of the subject components.

A copy of this report will be sent to Copes Vulcan and Westinghouse.

Sincerely,

William J. Cahill, Jr.

JET/ds

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (2)
Copes Vulcan, Inc.
Westinghouse, Inc.

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10CFR21 Issue Involving Yoke to Bonnet
Bolting Material, Copes Vulcan Valves

(i) Information Supplied by:

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(ii) The facility is the Comanche Peak Steam Electric Station (CPSES) Unit 1 and 2. The basic component is a 5/8" cap screw securing the valve yoke to the valve bonnet on Copes Vulcan Valves.

(iii) The valves containing the cap screws were supplied to CPSES by Westinghouse. Westinghouse purchased the valves from the valve manufacturer, Copes Vulcan.

(iv) Description

The bolting material in question is 5/8" socket head cap screws, 1 1/8" long, 11 UNC, used to attach the valve yoke to the valve bonnet. The bolting material is identified on Copes Vulcan drawings as A193 B6 material. This is typical for all valve sizes supplied to CPSES.

Site Specific Summary

On November 11, 1991, during Unit 2 construction activities it was discovered that the wrong bolting material was present on a Copes Vulcan valve.

Unlike the material specified on the vendor drawings, ASTM A193 B6, the installed material was not ferromagnetic. Subsequent examinations of other valves, in Unit 1 and Unit 2, confirmed the wrong bolting material had been installed in the majority of Copes Vulcan valves supplied to Comanche Peak.

Testing of the bolts removed from Unit 2 identified material composition and properties associated with ASTM material specification F837 type XM7.

Site Specific Safety Implications

No safety implications exist at CPSES as a result of the wrong bolting material being installed.

A determination that the deficiency did not affect Unit 1 operability was made by comparison of the calculated stresses associated with the material present. A subsequent evaluation for Unit 2 showed that the bolts would not yield in such a manner as to effect valve function.

Although these condition have been determined to present no significant safety consideration at CPSES, due to the specific application of valves using this material and conservatism of design, the deviation is being reported to assure notification to other possibly affected nuclear facilities.

- (v) Based on the determination that the valves in question would remain functional, it has been determined that the deficiency is not a defect under 10CFR21.
- (vi) TU Electric has 150 Copes Vulcan valves in Units 1 and 2, most of which are in safety related applications.
- (vii) TU Electric will replace the non-conforming bolting material in Unit 1 prior to the end of the second refueling outage. The Unit 2 bolting material will be replaced prior to fuel load.
- (viii) Not Applicable