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TEXAS UTILITIES GENERATING COMPANY
SKYWAY TOWER • 400 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

BILLY R. CLEMENTS
VICE PRESIDENT, NUCLEAR OPERATIONS

March 6, 1985
TXX-4409

Mr. D.R. Hunter, Chief
Reactor Project Branch 2
U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76012

Docket Nos.: 50-445
50-446

COMANCHE PEAK STEAM ELECTRIC STATION
VENTILATION EXHAUST DAMPERS
QA FILE: CP-84-27, SDAR-152
FILE NO.: 10110

Dear Mr. Hunter:

In accordance with 10CFR50.55(e), we are submitting the enclosed report of actions taken to correct a deficiency regarding ventilation exhaust dampers that have been observed to be designed/installed to fail closed which would divert radioactive releases to rooms in which operator action is required. We have submitted interim reports logged TXX-4333, TXX-4365 and TXX-4379, dated October 12, 1984, November 20, 1984 and December 17, 1984, respectively.

Supporting documentation is available at the CPSES site for your inspector's review.

Very truly yours,

Richard E. Kahler
for Billy R. Clements

BRC:tlg

cc: NRC Region IV - (0 + 1 copy)

Director, Inspection & Enforcement (15 copies)
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ATTACHMENT

VENTILATION EXHAUST DAMPERS

Description

During disposition of a design deficiency report by site engineering, the designed failure mode for several ventilation dampers was observed to be fail-closed. Also, it was determined that when in the post-accident mode of operation, airborne radioactive releases could be diverted from normal exhaust paths to rooms required for access for operator actions.

Evaluation of this issue involved an assessment of the primary plant ventilation scheme. Initial concerns regarding the effects of radiation were dispelled without affecting offsite releases or operator action. Compromise of the class 1E power supply, also an initial issue, was resolved without adverse affects; however, the review concluded the effects of increased temperature and hydrogen releases within the ventilation system were unacceptable. Specifically, increased temperatures during an accident could exceed qualification parameters and result in indeterminate operability of the electrical equipment in the affected areas. In addition, radioactive, hydrogen-rich gases could result in an explosive mixture of hydrogen in the event of an inadvertent leak from the boron recycle holdup tanks.

Safety Implications

In the event the deficiency had remained undetected, the ability of the operator to safely perform essential functions could be impaired or prohibited. In addition, the operability of this equipment required under accident conditions could not be assured.

Corrective Actions

In order to assure operability of the affected electrical equipment, the ventilation system will be modified to provide adequate heat removal. Eighty-eight (88) dampers will be removed or modified to accomplish the system rework. An additional thirty-three (33) dampers will be involved in the effort in order to minimize the impact to scheduling and engineering. Further activities, such as insulating additional piping, have been implemented to reduce heat generation.

Equipment qualification reports of the affected electrical equipment are being reviewed and updated to incorporate a 72-hour loss of ventilation. The relocation of components and instruments is also underway to minimize the impact of the qualification program.

For Unit 1, design, construction, and inspection activities for the damper effort are scheduled for completion in July 1985. Equipment qualification report, FSAR, and specification updates will be complete in September 1985. Unit 2 activities will be completed prior to startup testing.

In order to mitigate the effect of potential hydrogen releases, explosion-proof lighting will be installed where applicable. A special HVAC test to ensure gas removal will also be performed.