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February 28, 1985

Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, D.C. 20555

Attention: Mr. Joseph J. Petrosino

Dear Mr. Petrosino,

Please find enclosed for your review, the following listed information:

A. Horizontal Fire Damper Modification (Palo Verde)

1. Drawing 10684
2. Seismic Calculation No. 1101
3. Engineering Procedure No. 112084 PV Titled "Horizontal Fire Damper Closure Modification"
4. U.L. Approval of Modification

B. Electro Thermal Link Installation Instructions

1. SNUPPS

- a. Calloway County
- b. Wolf Creek

2. TEXAS UTILITIES

- a. Comanche Peak

3. Drawing 7838, Rev. A, 10-13-82

C. Power Plants Provided with Safety Related Fire Dampers with Electro Thermal Links.

D. Safety Related Units

- a. Listed by Project Name and quantities.

E. Attachment I part 21 Notification

- a. Updated to include Beaver Valley Power Station.

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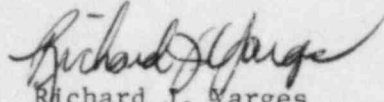
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In closing, I trust this information will enable you to develop a better overview of how the modification to horizontal dampers was developed and documented.

If further information is required, please contact the undersigned.

RUSKIN MANUFACTURING DIVISION


Richard J. Yarges
Quality Assurance Manager

RJY/sgb

cc: file



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NUCLEAR POWER PLANTS PROVIDED WITH
SAFETY RELATED FIRE DAMPERS WITH ELECTRO THERMAL LINKS

Palo Verde Nuclear Generating Station
Watts Bar Nuclear Plant
Sequoyah Nuclear Plant
Diablo Canyon Nuclear Power Station
Comanche Peak Nuclear Generating Station
South Texas Project
Byron Nuclear Power Station
Braidwood Nuclear Power Station
LaSalle County Station
Wm. H. Zimmer Nuclear Power Station
Hope Creek Nuclear Generating Station
Perry Nuclear Power Plant
Oconee Nuclear Station
D. C. Cook Nuclear Plant
Duane Arnold Energy Center
Callaway Nuclear Power Station
Wolf Creek Nuclear Power Station

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PALO VERDE HORIZONTAL FIRE DAMPER MODIFICATION

A. BACKGROUND

Subsequent to identification of the fire damper closure problem at Palo Verde, Bechtel, through The Waldinger Corporation, requested Ruskin to test certain size dampers in various duct configurations. This testing was intended to envelope actual field conditions and eliminate the need to field test each damper under air flow. Testing for Palo Verde was started November 15, 1984, and completed November 28, 1984, and was conducted at the Ruskin test facility in Grandview, Missouri.

B. DESCRIPTION OF CHANGE

During the testing of horizontal dampers, modifications were made to the horizontal spring bracket and to the method of spring attachment to the blade to increase closure ability. These changes were shown on Drawing 10684. The blade entry area of the bracket was extended to allow smoother transition of blades entering the bracket. The spring was rotated 90° and attached directly to the bottom blade instead of using the existing blade bracket. This allows the spring to apply tension for the full travel of the blade package.

C. DESIGN CHANGE VERIFICATION

Seismic adequacy of the modified bracket for safety-related fire dampers is shown in Calculation Number 1101, "Horizontal Spring Bracket Analysis".

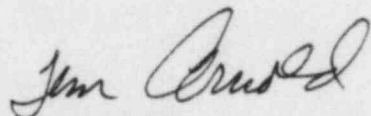
For modified dampers to retain a 3-hour UL rating, design changes must be approved by Underwriters Laboratories. Ruskin met with UL, December 5, 1984, to discuss the modifications. This was followed by a drawing submittal of December 12, 1984, and UL approval December 14, 1984, (attached).

D. IMPLEMENTATION

Bechtel, through Waldinger, identified existing horizontal dampers to be modified based on the tests performed for the Palo Verde site. Ruskin provided hardware and Engineering Procedure No. 112084PV, "Horizontal Fire Damper Closure Modification" to Waldinger for modification of installed fire dampers.

To verify rework was done in accordance with the modification procedure and to install new 3-hour UL Labels, Ruskin, along with a representative from UL, performed an inspection of the modified dampers in Unit 1. This inspection was completed December 21, 1984. Modifications to dampers in Units 2 and 3 have been initiated, but have not been completed.

Prepared by:


Tim Arnold
Senior Project Manager

2-27-85