



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

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June 27, 1979

Docket Nos. 50-528
50-529
50-530

Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

Attention: Mr. E. E. Van Brunt, Jr.
Vice President, Construction Projects

Gentlemen:

The enclosed IE Circular No. 79-11, is forwarded to you for information. No written response to this Circular is required. If you require additional information regarding this subject, please contact this office.

Sincerely,

R. H. Engelken
Director

Enclosures:

1. IE Circular No. 79-11
2. List of IE Circulars
Issued in the Last
12 Months

cc: w/ enclosure:
F. W. Hartley, APS

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

June 27, 1979

IE Circular No. 79-11

DESIGN/CONSTRUCTION INTERFACE PROBLEM

Description of Circumstances:

Apparent inadequate communication between nuclear steam supply system (NSSS), architect/engineer (A/E) and constructors have resulted in several cases where reactor vessels or the supports have been misoriented. The misorientation problems appear to occur at sites where dual reactor units are being constructed and one primary system layout is a mirror image of the other.

In 1975 TVA reported a misorientation problem with the Sequoyah Unit 2 reactor vessel. Westinghouse was the NSSS supplier and TVA provided their own A/E service.

In 1977 the Southern California Edison Company reported a reactor vessel misorientation at San Onofre Unit 2. Combustion Engineering was the NSSS supplier and Bechtel provided the A/E service.

In 1979 the Texas Utilities Generating Company reported a reactor vessel support system misorientation at Comanche Peak Unit 2. Westinghouse supplied the NSSS, Gibbs and Hill was the plant engineer and Brown and Root was the constructor.

Even though there appears to be minimal safety implications associated with the particular misorientation problems mentioned, repetition of the same type of errors suggests breakdowns in the design/construction interface relationships that could in turn lead to more significant safety problems.

Corrective preventive action is recommended for the following reasons:

- . If the interface control system between the NSSS/AE/Construction is marginal or ineffective as evidenced by the misorientation of reactor vessels and their supports, it is possible that other safety related equipment may also be misoriented and/or mislocated. In some cases the errors may not be as obvious as a misoriented reactor vessel.
- . This type of error can and has resulted in hardware modifications and could cause functional and/or structural changes that affect design and operating parameters.
- . In translating NSSS design information to the A/E may make changes to facilitate construction at the plant. These translations may also

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