UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

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JUN 27 1979

Docket No. 50-461
Docket No. 50-462

Illinois Power Company
ATTN: Mr. W. C. Gerstner
Executive Vice President
500 South 27th Street
Decatur, IL 62525

Gentlemen:

The enclosed 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,

Glen W. Roy
for James G. Keppler
Director

Enclosure: IE Circular
No. 79-11

cc w/encl:
Central Files
Director, NRR/DPM
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Mr. Dean Hansell, Office of
Assistant Attorney General

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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

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 into site-specific drawings, the A/E may make changes to facilitate construction of the plant. These translations may also

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