UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

April 21, 1981

MEMORANDUM FOR: Those Listed Below

FROM: G. L. Madsen, Chief, Reactor Projects Branch, IE:RIV

SUBJECT: IE CIRCULAR NO. 81-05

Subject IE Circular has been sent to the following listed licensees. A copy of the IE Circular is attached for your information.

Arkansas Power & Light Company
ANO-1 & 2 (50-313; 50-368)

Nebraska Public Power District
Cooper Nuclear Station (50-298)

Omaha Public Power District
Fort Calhoun (50-285)

Public Service Company of Colorado
Fort St. Vrain (50-267)

Gulf States Utilities
River Bend (50-458; 50-459)

Houston Lighting & Power Company
South Texas (50-498; 50-499)

Kansas Gas & Electric Company
Wolf Creek (STN 50-482)

Louisiana Power & Light Company
Waterford-3 (50-382)

Texas Utilities Generating Company
Comanche Peak (50-445; 50-446)

G. L. Madsen, Chief
Reactor Projects Branch

ATTACHMENT:
As stated

DISTRIBUTION:
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Accession No.:
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IEC 81-05

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

IE Circular No. 81-05
March 31, 1981

SELF-ALIGNING ROD END BUSHINGS FOR PIPE SUPPORTS

Background:

By letter dated July 24, 1980, Bechtel Power Corporation notified NRC of generic deficiencies in pipe support sway struts furnished by Corner & Lada, Inc., to the Callaway and Wolf Creek sites. The specific deficiencies identified involved the clamp end of the sway strut becoming loose and possibly being disengaged from the bushing. This could result in a large gap in the support system not accounted for in the original analysis. This deficiency was reported to NRC pursuant to 10 CFR Part 21 on May 14, 1980.

In another letter dated October 8, 1980, Bechtel Power Corporation notified NRC of generic deficiencies in pipe support end bushings at Midland Units 1 and 2 and at Palisades. In this report, self-aligning rod end bushings on the ends of sway struts and snubbers furnished by ITT Grinnell, Pacific Scientific, NPSI, and Corner & Lada were found to be partially or totally disengaged from the structural component. This report was identified as a 10 CFR Part 21 notification.

Discussion:

The problem of loose bushings in snubber and sway strut assemblies is potentially generic to all sizes of all manufacturers' assembles. However, the potential for complete disengagement of the bushing from the assembly is limited to those cases in which the assembly is attached to a clamp where the gap is sufficiently large to permit the paddle to slide completely over the bushing.

The consequences of complete disengagement of the bushing would be to invalidate the original analytical assumptions used in the piping analysis, potentially creating an overstress condition in the piping or overloading the supports. This would be more significant for the seismic event since the gap would change the dynamic characteristics of the system and lead to impact loads that could damage the piping or supports.