UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76012

June 21, 1979

In Reply Refer To:
RIV
Docket No. 50-382/IE Bulletin No. 79-02 (R1)

Louisiana Power and Light Co.
ATTN: Mr. D. L. Aswell
Vice President of Power Production
142 Delaronde Street
New Orleans, Louisiana 70174

Gentlemen:

Enclosed is IE Bulletin No. 79-02, Revision No. 1, which requires action by you with regard to your power reactor facility with an operating license or a construction permit.

Should you have any questions regarding this Bulletin or the actions required by you, please contact this office.

Sincerely,

Karl V. Seyfrit
Director

Enclosures:
1. IE Bulletin No. 79-02
Revision No. 1
2. List of IE Bulletins
Issued in Last
Twelve Months

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

IE Bulletin No. 79-02
(Revision No. 1)
Date: June 21, 1979

PIPE SUPPORT BASE PLATE DESIGNS USING CONCRETE EXPANSION ANCHOR BOLTS

Description of Circumstances:

Since the issuance of IE Bulletin 79-02 on March 8, 1979, IE inspection experience and many inquiries from licensees indicate that additional information and clarification is needed. This revision is intended to serve that purpose. None of the requirements of the original Bulletin have been deleted, and the due date for completion of the requested actions (July 6, 1979) has not been changed. The following text supersedes the text of Bulletin 79-02. Changes from the original text are identified by lines in the margin. The purpose of this revision is to identify acceptable ways of satisfying the Bulletin requirements. *

While performing inservice inspections during a March-April 1978 refueling outage at Millstone Unit 1, structural failures of piping supports for safety equipment were observed by the licensee. Subsequent licensee inspections of undamaged supports showed a large percentage of the concrete anchor bolts were not tightened properly.

Deficiency reports, in accordance with 10 CFR 50.55(e), filed by Long Island Lighting Company on Shoreham Unit 1, indicate that design of base plates using rigid plate assumptions has resulted in underestimation of loads on some anchor bolts. Initial investigation indicated that nearly fifty percent of the base plates could not be assumed to behave as rigid plates. In addition, licensee inspection of anchor bolt installations at Shoreham has shown over fifty percent of the bolt installations to be deficient.

Vendor Inspection Audits by NRC at Architect Engineering firms have shown a wide range of design practices and installation procedures which have been employed for the use of concrete expansion anchors. The current trends in the industry are toward more rigorous controls and verification of the installation of the bolts.

The data available on dynamic testing of the concrete expansion anchors show fatigue failures can occur at loads substantially below the bolt static capacities due to material imperfections or [illegible] stress risers. The data also show low cycle dynamic failures at l[illegible] due to joint slippage.

* Lines indicate changes to previous edit[illegible]

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