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

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JUN 21 1979

Docket Nos. 50-10, 50-237, 50-249,
50-254, 50-265, 50-295, 50-304, 50-373,
50-374, 50-454, 50-455, 50-456 and 50-457

Commonwealth Edison Company
ATTN: Mr. Byron Lee, Jr.
Vice President
Post Office Box 767
Chicago, IL 60690

Gentlemen:

Enclosed is IE Bulletin No. 79-02 Revision No. 1, which requires action by you with regard to your power reactor facilities 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,

Glen W Roey
for James G. Keppler
Director

Enclosure: IE Bulletin
No. 79-02 Revision No. 1

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

June 21, 1979

IE Bulletin No. 79-02
(Revision No. 1)
(7906200183)

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 th
fatigue failures can occur at loads substan
cities due to material imperfections or not
also show low cycle dynamic failures at loa
due to joint slippage.

* Lines indicate changes to previous editio