NOV 8 1979

pdr central files
TERA

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. Cordell Reed
Manager of Nuclear
Operations
Post Office Box 767
Chicago, IL 60690

Gentlemen:

Enclosed is IE Bulletin No. 79-02, Revision No. 2 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 Revision or the actions required by you, please contact this office.

Sincerely,

James G. Keppler
Director

Enclosure: IE Bulletin No. 79-02,
Revision No. 2

cc w/encl:
Mr. D. L. Peoples, Director
of Nuclear Licensing
Mr. B. B. Stephenson,
Station Superintendent
Mr. N. Kalivianakis,
Station Superintendent
Mr. N. Wandke, Station
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Mr. L. J. Burke, Site
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

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7908220136

November 8, 1979

IE Bulletin No. 79-02
(Revision 2)

PIPE SUPPORT BASE PLATE DESIGNS USING CONCRETE EXPANSION ANCHOR BOLTS

Description of Circumstances:

Inspection experiences and the review of licensee response have identified several areas where the Bulletin intent has not been adequately addressed by licensees. Revision No. 2 of the Bulletin is intended to clarify the intent of the Bulletin and establish the NRC positions on minimum factors of safety, anchor bolt preload, and the expected date of completion for certain Bulletin actions. R2

Since the issuance of IE Bulletin No. 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 No. 79-02. Changes from the original text are identified by R1, R2 in the margin. The purpose of this revision is to identify acceptable ways of satisfying the Bulletin requirements. R1

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 [illegible] fatigue failures can occur at loads su[illegible]

R1 and R2 - Identifies those additions