

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

Docket No. 50-461 Docket No. 50-462 MAY 8 1980

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

Gentlemen:

Enclosed is IE Bulletin No. 80-11 which is forwarded to you for information. No written response is required. Should you have any questions regarding this matter, please contact this office.

Sincerely,

Charles & novelins

James G. Keppler Director

Enclosure: IE Bulletin No. 80-11

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

SSINS No.: 6820 Accession No.: 7912190695

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

May 8, 1980

IE Bulletin No. 80-11

MASONRY WALL DESIGN

Description of Circumstances:

In the course of conducting inspections pursuant to IE Bulletin Nos. 79-02 and 79-14 at the Trojan Nuclear Plant, Portland General Electric Co. (PGE) identified a problem with the structural integrity of concrete masonry walls with Seismic Category I piping attached to them. This problem was briefly addressed in IE Information Notice No. 79-28, which was sent to all Construction Permit and Operating License holders on November 16, 1979 (Attachment 1).

The problem was that some walls were found which did not have adequate structural strength to sustain the required piping system support reactions. These structural deficiencies were at that time reported to be attributable to two deficiencies:

- Apparent lack of a final check of certain pipe support locations and reactions to ensure that the supporting elements possessed adequate structural integrity to sustain the required loads.
- 2) Non-conservative design criteria for the reactions from supports anchored into the face of concrete masonry walls; e.g., relying on the combined strength of double block walls without substantial positive connection between the two walls by means other than the bond provided by a layer of mortar, grout or concrete between them.

Continued investigations into the deficiencies identified at the Trojan Nuclear Plant, engineered by Bechtel, confirmed the deficiencies to be attributable to error in engineering judgment, lack of procedures and procedural detail, and inadequate design criteria (details are in Trojan Nuclear Plant's LER No. 79-15, and supplements). Because of this and the generic implications of similar deficiencies with other operating facilities, we have concerns with regard to the adequacy of design criteria used for the design of masonry walls and an apparent lack of design coordination between the structural and piping/equipment design groups.

IE Bulletin 79-02, Revision 2 issued on November 8, 1979 required a review of pipe supports attached to masonry walls using averaging and bull review of

pipe supports in this category, the expansion bolting through the wall or the support Supports that are bolted through masonry review for this Bulletin.

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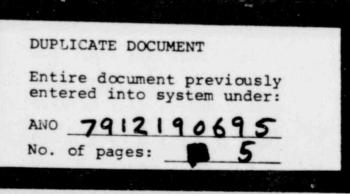
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UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT WASHINGTON, D.C. 20555 Attachment 1 SSINS No.: 6870 Accession No.: 7910250475

November 16, 1979

IE Information Notice No. 79-28

OVERLOADING OF STRUCTURAL ELEMENTS DUE TO PIPE SUPPORT LOADS

Description of Circumstances:

Recently, the NRC was informed that, in the course of the inspections pursuant to IE Bulletin No. 79-02 and 79-14 by the Portland General Electric Co. (PGE) at the Trojan Nuclear Plant, some walls were found which did not have adequate structural strength to sustain the required support reactions. Bechtel Corporation was the Architect Engineer for the plant. These structural inadequacies were reported to be attributable to two deficiencies:

- Apparent lack of a final check of certain pipe support locations and reactions to ensure that the supporting structural elements possessed adequate structural integrity to sustain the required loads.
- 2) Inadequate design criteria for the reactions from supports anchored into the face of concrete block walls; e.g., relying on the combined strength of double concrete block walls without positive connection between the two walls by means other than the bond provided by layer of grout between them.

The NRC is currently pursuing these issues in detail for the Trojan Nuclear Plant to determine the extnet of these deficiencies and the generic implications for other Bechtel facilities.

This Information Notice is provided as ... early notification of a possible significant matter. It is expected that recipients will review the information for possible applicability to their facilities and the actins being performed under IE Bulletin No. 79-02. Specific action is being requested relating to the adequacy of attachments to concrete block walls under IE Bulletin No. 79-02, Revision 2, item 5.c. No specific actions are requested in response to this Information Notice. If NRC evaluations so indicate, further licensee actions may be requested or required. If you have any questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

No written response '.o this IE Information Notice is required.