

OCT 9 1973

Docket No. 50-255

Consumers Power Company
ATTN: Robert L. Haueter
Electric Production
Superintendent - Nuclear
212 West Michigan Avenue
Jackson, Michigan 49201

Change No. 9
License No. DPR-20

Gentlemen:

Your letter dated July 13, 1973, submitted additional information in support of your analysis of postulated high energy line breaks outside containment. Specifically, you included proposed Technical Specifications for inservice inspection of critical areas in the main steam and feed-water lines for the Palisades Plant.

In our letter dated August 7, 1973, in response to your submittal, we advised you that we had completed our review of Consumers Power Company's Special Report No. 6 and supplements, and that we found that your analysis, the scope and schedule of the proposed facility modifications, and the general scope of your proposed augmented inservice inspection program are acceptable.

For high energy lines outside of containment, the Regulatory staff has developed a reference program and typical Technical Specifications appropriate to an augmented inservice inspection program for welds in such lines where such a program is considered acceptable for providing protection from the consequences of postulated pipe ruptures. We have discussed with your staff specific Technical Specifications of this type that would be compatible with the conditions of the main steam and main feedwater piping systems in the Palisades Plant. We have concluded that these Technical Specifications should be issued as Change No. 9 for the Palisades Plant, in lieu of those proposed in your letter of July 13, 1973.

In your Special Report No. 6, you proposed to install encapsulation sleeves as a suitable measure to provide protection from the consequences of postulated pipe ruptures at two elbows in the feedwater lines. During our subsequent discussions, we mutually agreed that inclusion of the attachment welds of these elbows in the augmented inservice inspection program in lieu of the installation of the encapsulation sleeves for these elbows as initially proposed, would be an acceptable alternative solution to the problem.

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We have concluded that the augmented inservice inspection will enhance the confidence in the continued integrity of the main steam and feed-water lines. We have also concluded that issuance of Change No. 9 does not involve a significant hazards consideration and that the health and safety of the public will not be endangered.

Accordingly, pursuant to 10 CFR Part 50, Section 50.59, a new Section 4.12 "Augmented Inservice Inspection Program for High Energy Lines Outside Containment" is added to the Technical Specifications as shown in the attached pages. The Table of Contents of the Technical Specifications should be revised also by changing the description of Section 4.11 and by adding a new Section:

"4.11 Environmental Monitoring Program

"4.12 Augmented Inservice Inspection Program for High Energy Lines Outside Containment." Page 4-60

Sincerely,

Original signed by
Donald J. Skovholt

Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

Enclosure:
Change No. 9 to the Technical
Specifications

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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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October 9, 1973

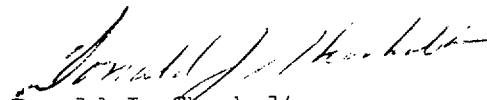
We have concluded that the augmented inservice inspection will enhance the confidence in the continued integrity of the main steam and feed-water lines. We have also concluded that issuance of Change No. 9 does not involve a significant hazards consideration and that the health and safety of the public will not be endangered.

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Sincerely,


Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

Enclosure:
Change No. 9 to the Technical
Specifications

4.12 AUGMENTED INSERVICE INSPECTION PROGRAM FOR HIGH ENERGY LINES
OUTSIDE OF CONTAINMENT

Applicability

Applies to welds in piping systems or portions of systems located outside of containment where protection from the consequences of postulated ruptures is not provided by a system of pipe whip restraints, jet impingement barriers, protective enclosures, and/or other measures designed specifically to cope with such ruptures.

For the Palisades Plant, this specification applies to welds in the main steam and main feedwater lines located inside the Main Steam and Feedwater Penetration Rooms.

Objective

To provide assurance of the continued integrity of the piping systems over their service lifetime.

Specification

- 4.12.1 For welds identified in Figure 4.12.A (Main Steam Lines) and Figure 4.12.B (Feedwater Lines):
- a. At the first outage period, such as refueling, a volumetric examination shall be performed with 100 percent inspection of welds in accordance with the requirements of ASME Section XI Code, "Inservice Inspection of Nuclear Power Plant Components."
 - b. The inservice inspection at each weld shall be performed in accordance with the requirements of ASME Section XI Code, "Inservice Inspection of Nuclear Power Plant Components," with the following schedule (the inspection intervals identified below sequentially follow the baseline examination of 4.12.1.a above):

Change No. 9
Date: 10/9/73

First Inspection Interval

- | | |
|---|---|
| 1. First 3-1/3 years (or nearest refueling outage) | 100% volumetric inspection of all welds |
| 2. Second 3-1/3 years (or nearest refueling outage) | 100% volumetric inspection of all welds |
| 3. Third 3-1/3 years (or nearest refueling outage) | 100% volumetric inspection of all welds |

Successive Inspection Intervals

Every 10 years thereafter (or nearest refueling outage)	Volumetric inspection of 1/3 of the welds at the expiration of each 1/3 of the inspection interval with a cumulative 100% coverage of all welds.
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Note: The welds selected during each inspection period shall be distributed among the total number to be examined to provide a representative sampling of the conditions of all welds.

- c. Examinations that reveal unacceptable structural defects in a weld during an inspection should be extended to require an additional inspection of another 1/3 of the welds. If further unacceptable defects are detected in the second sampling, the remainder of the welds shall be inspected.
- d. In the event repairs of any welds are required following any examination during successive inspection intervals, the inspection schedule for the repaired welds will revert back to the first inspection interval.

4.12.2 For other welds (excluding those identified in Figure 4.12.A and Figure 4.12.B):

- a. Welds in the main steam lines including the safety valve attachment welds and in the feedwater lines shall be examined in accordance with the requirements of subsections ISC-100 through 600 of the 1972 Winter Addendum of the ASME Section XI Code.

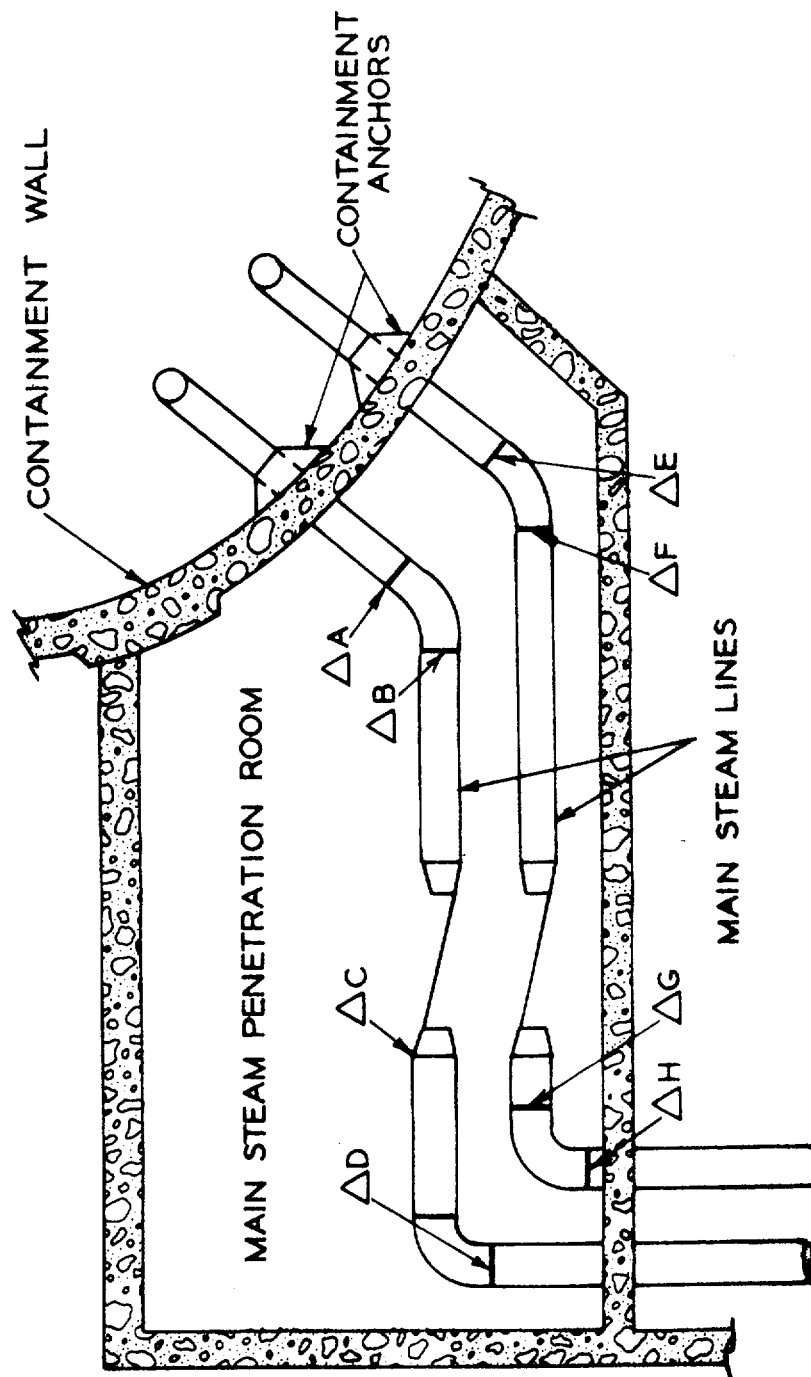
4.12.3 For all welds in the main steam lines and main feedwater lines located inside the Main Steam and Feedwater Penetration Rooms:

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Date: 10/9/73

- a. A visual inspection of the surface of the insulation at all weld locations shall be performed on a weekly basis for detection of leaks. Any detected leaks shall be investigated and evaluated. If the leakage is caused by a through-wall flaw, either the plant shall be shut down or the leaking piping isolated. Repairs shall be performed prior to return of this line to service.
- b. Repairs, reexamination, and piping pressure tests shall be conducted in accordance with the rules of ASME Section XI Code.

BASIS

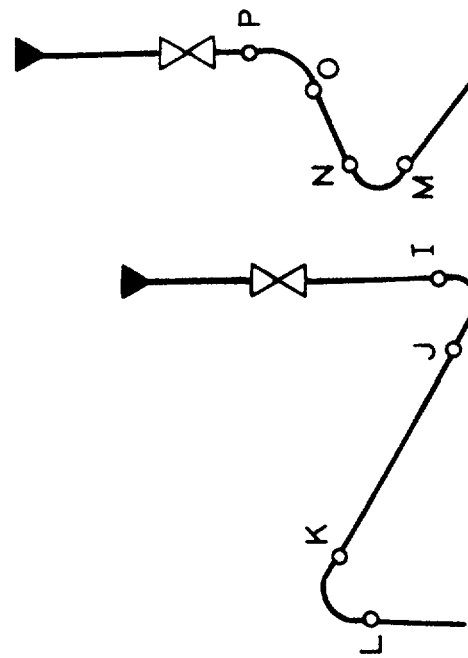
Under normal plant operating conditions, the piping materials operate under ductile conditions and within the stress limits considerably below the ultimate strength properties of the materials. Flaws which could grow under such conditions are generally associated with cyclic loads that fatigue the metal, and lead to leakage cracks. The inservice examination and the frequency of inspection will provide a means for timely detection even before the flaw penetrates the wall of the piping.



AUGMENTED INSERVICE INSPECTION
PROGRAM - MAIN STEAM WELDS

PALISADES
TECHNICAL
SPECIFICATIONS

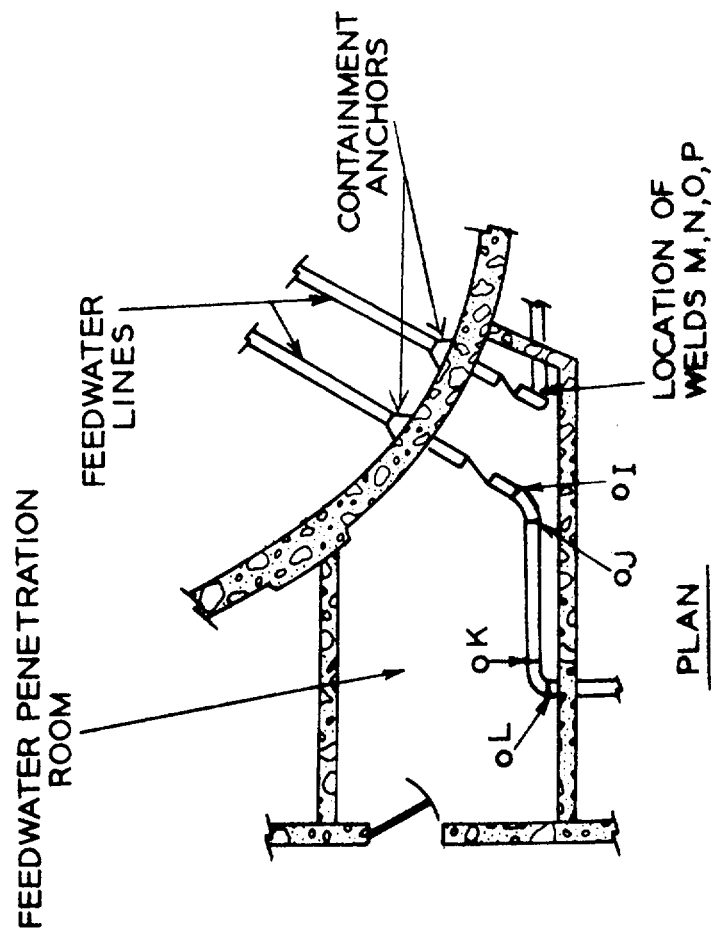
FIGURE
4.12 A



ISOMETRIC

○ DESIGNATES ELBOW WELDS

▼ DESIGNATES ANCHORS



PLAN

AUGMENTED INSERVICE INSPECTION
PROGRAM-FEEDWATER LINE WELDS

PALISADES
TECHNICAL
SPECIFICATIONS

FIGURE
4.12 B