UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION REPORT

SUSQUEHANNA STEAM ELECTRIC STATION UNIT 2

DOCKET NO. 50-388

RELIEF REQUEST - ASME CODE SECTION XI REQUIREMENTS

I. INTRODUCTION

Section XI of the ASME Boiler and Pressure Vessel Code requires that pressure-boundary components be subjected to nondestructive examinations and pressure tests after modification or repair. By letter dated November 2, 1984, the Pennsylvania Power and Light Company (the licensee) requested relief from hydrostatic pressure test requirements following a cut of an ASME Class 2 main steam drip leg drain line to remove a suspected blockage in the line and then reweld the line. Information supporting the request was also provided in the letter. Pursuant to 10 CFR 50.55a(g)(6)(i), this information was evaluated to determine if the necessary findings can be made to grant relief as requested.

II. RELIEF REQUEST EVALUATION

The licensee has requested written relief from an examination requirement that he has determined to be impractical in accordance with paragraph 10 CFR 50.55a(g)(5)(iii). The staff has evaluated the information in the referenced letter and has determined that the examination requirement, from which relief is requested, is impractical as discussed in the following paragraphs.

During the November-December 1984 precommercial outage, the licensee intends to make a cut in the 1 ½" main steam drip leg drain line and then reweld the line. The licensee requests relief from performing the required hydrostatic pressure test after rewelding the line.

CODE REQUIREMENT

A hydrostatic test shall be conducted subsequent to repairs on modification by welding which penetrate the pressure boundary on piping greater than one inch in diameter. Section XI of the ASME Code requires that the hydrostatic test be at 1.25 times the design pressure following the repair.

LICENSEE BASIS FOR REQUESTING RELIEF

Performing the required hydrostatic test on the main steam drip leg drain line piping subsequent to the repair would be extremely difficult, expensive and impractical due to the following:

1. Isolation of the ASME Class 2 drain line from the primary system is not feasible. The hydrostatic pressure test for the 1 ½" weld

would involve removal of main steam relief valves (since the MSIV's cannot be used for isolating the outboard side), pressurizing the reactor vessel, and pressurizing against a turbine stop valve which, if it leaks, could allow water into the high pressure (HP) turbine.

2. The substitution of the best available nondestructive examination (as described in the section "Proposed Alternative Inspection") as an alternative to certain hydrostatic tests is consistent with the provisions of ASME Code Case N-416, which has been approved by the ASME Main Committee but has not yet been issued.

PROPOSED ALTERNATIVE INSPECTION

To establish the integrity of the weld, the licensee will perform a liquid penetrant examination if the repair weld is a socket weld or, a radiographic examination if a full penetration weld is performed. In addition, a VT-2 examination will be performed at normal operating conditions when the line is returned to service. Finally, a VT-2 examination of the weld will again be performed during the first scheduled inservice inspection hydrostatic test for the line.

III. STAFF EVALUATION AND CONCLUSIONS

The cutting and rewelding of the ASME Class 2 main steam drip leg drain line is being performed to remove a suspected blockage in the line. The weld made following repair of the 1½ inch line is required to be hydrostatically pressure tested. However, the weld is located such that conformance with Section XI pressure test requirements would necessitate removal of the relief valves. In addition to this, the hydrostatic test requires pressurizing the reactor vessel and pressurizing against a turbine stop valve which, if it leaks, could allow water into the HP turbine. To impose the requirement on the licensee would not serve to increase significantly the safety of the plant above that provided by the alternative examinations and tests of the welds to which the licensee has committed.

Considering (1) the hardships encountered versus the increase in plant safety if the hydrostatic pressure test requirement were imposed and (2) the licensee's proposed alternative to provide reasonable assurance of the structural integrity of the weld, the NRC staff finds the requirement impractical to perform and the alternative test and examinations adequate to determine the structural integrity of the weld. The NRC staff further concludes that such relief is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee if such relief were not granted. The staff, therefore, concludes that relief from the hydrostatic pressure test requirements may be granted as requested.

Dated: DEC 24 1984

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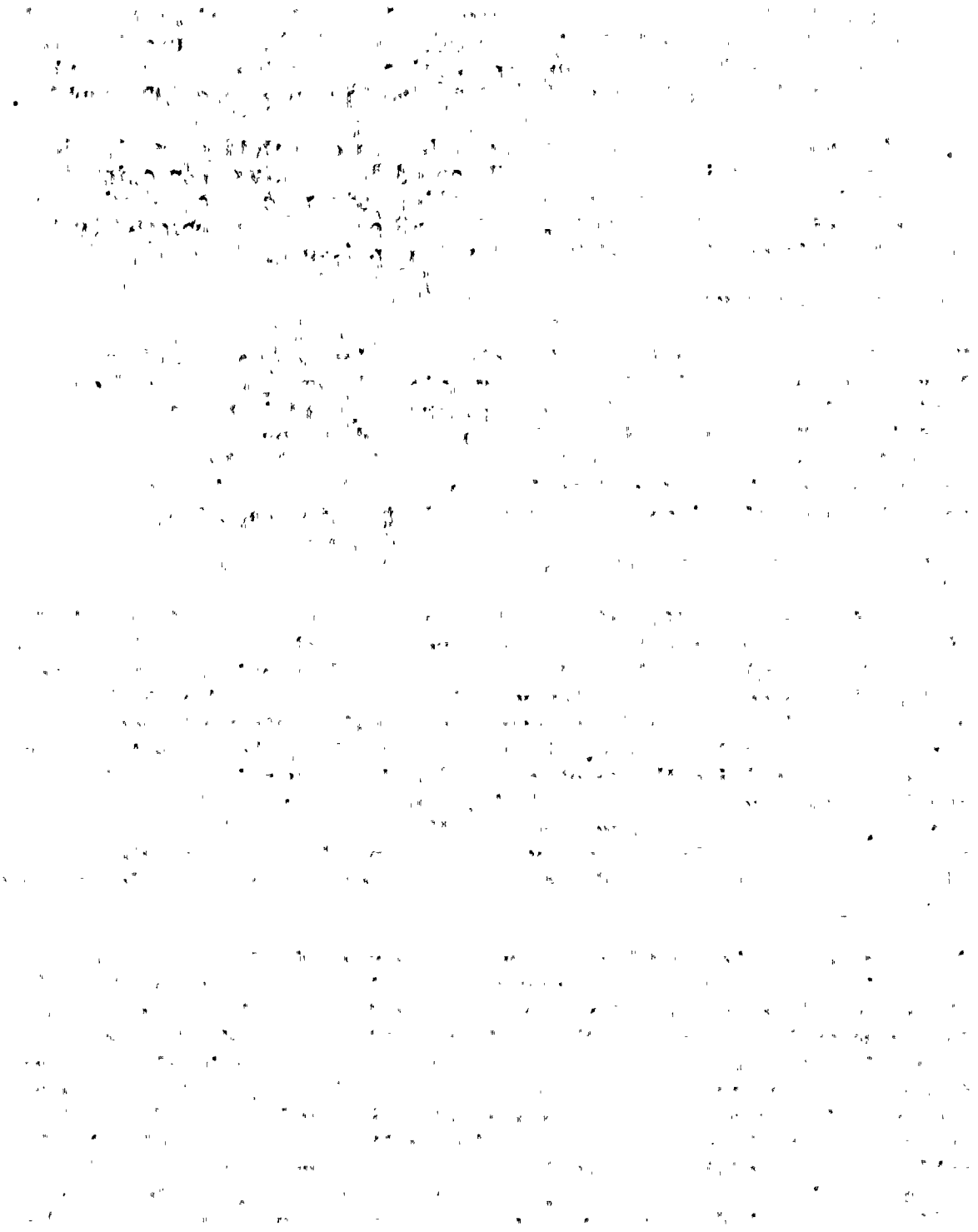
Previous concurrences concurred on by*:

LB#2/DL	LB#2/DL	MTEB/DE	AD/MCET
*MCampagnone:dh	*ASchwencer	*BDLiaw	*WVJohnston
11/29/84	11/29/84	12/07/84	12/07/84



Inappropriate findings

The staff has concluded, based on the consideration discussed above, that: (1) because granting the relief does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant decrease in a safety margin, the relief does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this relief will not be inimical to the common defense and security or to the health and safety of the public.

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