

SAFETY EVALUATION FOR GRANTING OF RELIEF BY THE OFFICE
OF NUCLEAR REACTOR REGULATION
RELATED TO INSERVICE TESTING REQUIREMENTS
CHANGING PUMP CASING WELDS AND THE HYDROSTATIC TEST PRESSURE FOR
STEAM GENERATORS AND ASSOCIATED CLASS 2 PIPING
ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT, UNIT NO. 2
DOCKET NO. 50-364

INTRODUCTION

By letter dated July 27, 1984, Alabama Power Company (the licensee) submitted two requests for relief from the examination and hydrostatic test requirements of the 1974 Edition through Summer 1975 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code for Farley Nuclear Plant Unit 2. The alternative examinations and tests proposed were revised from those previously submitted by letter dated July 25, 1980. The revised alternative examinations and tests will be evaluated to determine if adequate assurance of the components' structural integrity is provided.

REQUESTS AND SUPPORTING INFORMATION

- A. RELIEF REQUEST - RELIEF IS REQUESTED FROM THE HYDROSTATIC TEST OF THE CLASS 2 PORTIONS OF THE STEAM GENERATORS AND RELATED PIPING AT 1.25P_D

EXAMINATION REQUIREMENTS:

IWC-5220 of the ASME Code, Section XI, 1974 Edition through Summer 1975 Addenda requires that the hydrostatic test pressure be at least 1.25 P_D for Class 2 components.

BASIS FOR RELIEF:

In order to prevent undue stress on the steam generators, Westinghouse recommends that the hydrostatic test of the secondary side of the steam generators be conducted at $1.25 P_D$ for a minimum of 10 minutes and maximum of 30 minutes, and then reduced to operating pressure, $1.0 P_D$ for the balance of the four-hour holding period. The related Class 2 piping is hydrostatically tested along with the steam generator.

ALTERNATIVE EXAMINATION:

The hydrostatic test of the Class 2 portions of the steam generator and related piping will be hydrostatically tested at $1.25 P_{sv}$ (based on previously granted relief for $1.25 P_{sv}$ vice $1.25 P_D$) for a minimum of 10 minutes and a maximum of 30 minutes. The test pressure will then be reduced to $1.0 P_D$ for the remainder of the required four-hour holding time.

- B. RELIEF REQUEST - RELIEF IS REQUESTED FROM THE VOLUMETRIC EXAMINATION OF THE CHARGING PUMP CASING WELDS. (ITEM C3.1, CATEGORY C-F OR C-G)

EXAMINATION REQUIREMENT:

Table IWC-2600 Item C3.1 requires volumetric examination of pump casing pressure retaining welds.

BASIS FOR RELIEF:

The pressure retaining welds in the charging pump casings are not normally accessible for examination as required by IWC-2600. Examination of the charging pump casing weld, Item C3.1, by ultrasonic, radiographic or surface examination requires complete disassembly of the pump casing and removal of the inboard seal housing and rotor assembly. It has been recently determined that, due to geometrical limitations of the casing weld (i.e., weld crown), volumetric examinations cannot be performed.

ALTERNATIVE EXAMINATION:

Surface and visual examinations of each pump casing weld will be conducted, once per inspection interval, when a pump is disassembled for maintenance reasons. If no such occasion arises, the examinations will be performed at or near the end of the ten year interval.

EVALUATION AND CONCLUSION

The staff has reviewed the requests and supporting information provided for the impractical inservice examination and testing requirements as delineated in the 1974 Edition through Summer 1975 Addenda of Section XI. We have determined that the requirements, if imposed, would subject the licensee to unnecessary hardships without a compensating increase in safety at Farley Unit 2. The alternative examinations and tests committed to be performed in lieu of the Code requirements have been determined to be adequate in providing assurance of piping and component structural integrity. We, therefore, conclude that relief may be granted as requested.

The staff has determined that where stated the code requirements are impractical, the granting of this relief is authorized by law and will not endanger life or property of the common defense and security, and is otherwise in the public interest considering the burden that could result if they were imposed on your facility.

Dated: December 18, 1984

Principal Contributor:

G. Johnson