

A/B 6/16

DATE 1 24 1991

INTRA-COMPANY MEMORANDUM
ED 6214-2

January 24, 1991

TO

File for Information Notice (IN 90-10)

FROM

D. A. Huffman
D. A. Huffman, Senior Engineer - Nuclear, Performance Engineering

SUBJECT

Closure of IN 90-10, Primary Stress Corrosion
Cracking (PWSCC) of Inconel 600 (TERMS A15616)

NEO-91-00067

SUMMARY

This IN is intended to alert plants to potential problems related to primary water stress corrosion cracking (PWSCC) of Inconel 600 that has occurred in pressurizer heater thermal sleeves and instrument nozzles at severs PWRs.

DISCUSSION

Stress corrosion cracking associated with Inconel 600 material has been recognized for some time at PWRs. Although it was a recognized phenomenon for a number of years, the NRC concern is that attention is not being given to the inspection of Inconel 600 outside of steam generator tubing.

AREA OF CONCERN TO BE EVALUATED

Evaluate the attention being given to PWSCC at the Davis-Besse Nuclear Power Station, and to anticipated augmented inspection requirements.

EVALUATION

The B&W Owners Group Material Committee initiated a scoping study to investigate potential problems associated with PWSCC of Alloy 600 materials, as used in the B&W NSSS Design. Crystal River 3 was the target plant for the study, which included the full Reactor Coolant System (RCS) with the exception of fuel and control components, and OTSG tubing.

The study is summarized in B&W Document 51-1201160-00. The study recommends that each plant have an organized database of manufacturing records that could be created by a search of all contract records. The study also identified the particular applications at Crystal River 3 that should be inspected at a convenient or opportune time. This list could be adapted for Davis-Besse.

This study does not close the issue of Inconel 600 or associated PWSCC. It is expected that additional inspections will be recommended by B&W as a result of the failure of a pressurizer lever sensing nozzle at ANO-1. It does, however, demonstrate that the Inconel 600 applications in the primary coolant pressure boundary are being adequately reviewed, and that recommendations for augmented inspections are being formulated. Although the issue is not closed, the intent of the IN is being adequately met.

3 1 9 6 2 9 1 1 3

NEO-91-00067
January 24, 1991
Page 2

STATUS

IN 90-10 is closed (c).

EVALUATION APPROVAL


OEAP Lead Engineer

1-24-91
Date

DAH/tld

cc: G. A. Bradley
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