

Florida Power

CORPORATION

Crystal River Unit 3

Docket No. 50-302

January 11, 1996
3F0196-06

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Subject: Request To Use ASME Section IX Code Cases 2142 and 2143

Dear Sir:

In accordance with the provisions of 10 CFR 50.55a(a)(3), Florida Power Corporation requests approval to use American Society of Mechanical Engineers (ASME) Section IX Code Cases 2142 and 2143 on the Reactor Coolant System (RCS) for Crystal River Unit 3 (CR-3). These Code Cases, adopted by the ASME in December of 1992, were published in the ASME Boiler and Pressure Vessel Code, 1992 Edition, Code Case Supplement 3, 1993. However, since the 1992 Edition of the ASME Code has not yet been incorporated by reference in the NRC's regulations, these Code Cases cannot be used without NRC approval.

The Code Cases specify alternative rules which may be applied to grouping UNS N06052 Ni-Cr-Fe welding filler metal and UNS W86152 Ni-Cr-Fe welding electrodes as F-No.43 for both procedure and performance qualification purposes in accordance with ASME Section IX. UNS W86152 is the matching shielded metal arc welding electrode for Alloy 690 and UNS N06052 is the companion bare filler metal. Both materials have been shown in numerous EPRI studies to have improved corrosion resistance for Alloy 690 weldments as compared to the currently used Ni-Cr-Fe (N06082 and W86182) materials. The new weld materials are the preferred choice for welding applications involving Alloy 690 in a corrosive environment and provide an acceptable level of quality and safety because of their superior corrosion resistant properties.

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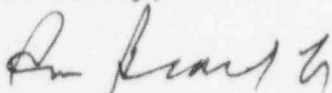
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The initial application for these Code Cases will be the installation of replacement alloy 690 fast response Thermowells in the Reactor Coolant System piping. In this application, eight new Thermowells, fabricated from Alloy 690 material, will be welded to the existing Ni-Cr-Fe nozzle/boss - one in each of the four Cold legs and two in each of the Hot legs. Code Cases 2142 and 2143 would also be used in subsequent welding applications where they may be beneficial in reducing the burden of requiring separate welding procedures and performance qualifications with the new weld metals.

FPC has evaluated the safety significance of this change in conjunction with the CR-3 procedures for conducting 10 CFR 50.59 reviews. We have concluded that no unreviewed safety questions are involved since welded thermowells significantly decrease the potential for RCS leakage as compared to a mechanical joint.

Since the first application of the Code Cases will be the replacement of Alloy 690 Thermowells during Refuel 10 for CR-3, scheduled to begin on February 29, 1996, we are requesting approval for use of the two new Code Cases by February 16, 1996.

Sincerely,



P. M. Beard, Jr.
Senior Vice President
Nuclear Operations

PMB/DAG/JWT

xc: Regional Administrator, Region II
Senior Resident Inspector
NRR Project Manager