

Florida Power

CORPORATION
Crystal River Unit 3
Docket No. 50-302

June 4, 1992
3F0692-06

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

Subject: Technical Specification Change Request No. 196, Supplement 2

References: 1. FPC to NRC letter, 3F0292-09, dated February 13, 1992
2. FPC to NRC letter, 3F0592-03, dated May 6, 1992
3. B&WOG Topical Report, BAW-2149, dated December 1991

Dear Sir:

Technical Specification Change Request No. (TSCRN) 196 (Reference 1) was submitted on February 13, 1992. It requested a proposed revision to the Technical Specifications to allow replacement of defective fuel rods with stainless steel filler rods in the B&W Fuel Company designed Mark B fuel assembly. This change request was based on the anticipated successful review and approval of the B&WOG Topical Report (Reference 3). Supplement 1 to TSCRN 196 (Reference 2) was submitted on May 6, 1992. It formally requested an alternate review agreed to between FPC and the appropriate NRC Staff which would allow the review to go forward without the benefit of completing the approval of the B&WOG Topical Report as originally planned. The NRC Staff subsequently requested FPC submit additional information which follows or is attached.

As a matter of general information, the UT examinations done during defueling identified twenty (20) fuel assemblies containing leaking fuel rods. All of the fuel assemblies containing leaking rods are scheduled for discharge. Thus, as originally planned, the final Cycle 9 design utilizes five Batch 9A fuel assemblies which had been recaged during the operating cycle with a total of nine stainless steel (SS) rods inserted into the five assemblies.

The stainless steel replacement rods are designed and analyzed to ensure that there is no adverse impact on fuel assembly performance. The rods are designed using the following guidelines:

1. The steel rod engages all spacer grid stops under all conditions.

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PDR ADOCK 13000302
P PDR

A Florida Progress Company

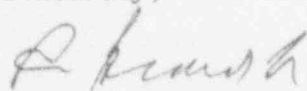
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2. Clearance is maintained between the dummy steel rod and the top grillage under reactor temperature and irradiation conditions.
3. The difference in thermal expansion between the steel rods and zircaloy clad fuel rods will not cause permanent deformation of the spacer grid spring stops and allow the rods to become loose in the grid cells.
4. The difference in mass between the steel rod and the fuel pins will not affect fuel assembly lift.

The concerns for the seismic-LOCA analysis of a fuel assembly containing SS rods have been evaluated. The structural attributes of the recaged fuel assemblies have been found to be sufficient. Fuel rod mechanical performance in a recaged assembly is unchanged.

The DNBR margin for the fuel pins adjacent to the SS replacement pins is substantially greater than 10% for the most limiting recaged fuel assembly. A core map identifying the location of the recaged assemblies and beginning of cycle power distribution is attached for information.

Sincerely,



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

PMB/DMO/jkt

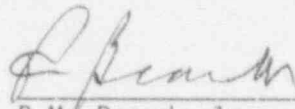
Attachment

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

STATE OF FLORIDA

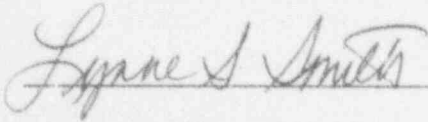
COUNTY OF PINELLAS

P.M. Beard, Jr. states that he is the Senior Vice President, Nuclear Operations for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.



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

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 4th day of June, 1992.



Notary Public

Notary Public, State of Florida at Large,
My Commission Expires Dec. 18, 1995
Bonded thru Agent's Notary Brokerage

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER

FLORIDA POWER CORPORATION

DOCKET NO. 50-302

CERTIFICATE OF SERVICE

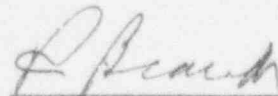
P. M. Beard, Jr. deposes and says that the following has been served on the Designated State Representative and Chief Executive of Citrus County, Florida, by deposit in the United States mail, addressed as follows:

Chairman,
Board of County Commissioners
of Citrus County
Citrus County Courthouse
Inverness, FL 32650

Administrator
Radiological Health Services
Department of Health and
Rehabilitative Services
1323 Winewood Blvd.
Tallahassee, FL 32301

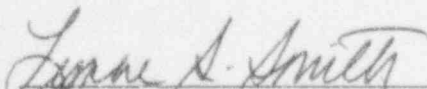
A copy of Technical Specification Change Request No. 196, Supplement 2 requesting Amendment to Appendix A of Operating Licensing No. DPR-12.

FLORIDA POWER CORPORATION



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

SWORN TO AND SUBSCRIBED BEFORE ME THIS 4th DAY OF JUNE, 1992.


Notary Public

Notary Public, State of Florida at Large
My Commission Expires:

Notary Public, State of Florida at Large
My Commission Expires Dec. 18, 1995
Bonded thru Agent's Notary Brokerage

CR3 CY9 REDESIGN DEPLETION 000-004 EFPD 2040 PPM GP8

* PEAK PIN POWER *
* AVERAGE ASSEMBLY POWER *
* PEAK TO AVERAGE POWER *

	8	9	10	11	12	13	14	15
H	* .957 *	* 1.334 *	* 1.316 *	* 1.404 *	* 1.355 *	* 1.433 *	* 1.124 *	* .561 *
	* .909 *	* 1.256 *	* 1.238 *	* 1.289 *	* 1.286 *	* 1.308 *	* .919 *	* .332 *
	* 1.053 *	* 1.062 *	* 1.062 *	* 1.090 *	* 1.054 *	* 1.096 *	* 1.223 *	* 1.691 *
K	* 1.333 *	* 1.278 *	* 1.382 *	* 1.190 *	* 1.433 *	* 1.337 *	* 1.421 *	* .692 *
	* 1.255 *	* 1.190 *	* 1.282 *	* 1.076 *	* 1.323 *	* 1.225 *	* 1.157 *	* .398 *
	* 1.062 *	* 1.073 *	* 1.078 *	* 1.097 *	* 1.083 *	* 1.091 *	* 1.228 *	* 1.739 *
L	* 1.314 *	* 1.382 *	* 1.320 *	* 1.414 *	* 1.272 *	* 1.434 *	* 1.104 *	* .527 *
	* 1.237 *	* 1.282 *	* 1.225 *	* 1.309 *	* 1.208 *	* 1.299 *	* .765 *	* .234 *
	* 1.062 *	* 1.078 *	* 1.077 *	* 1.081 *	* 1.052 *	* 1.104 *	* 1.442 *	* 2.248 *
M	* 1.403 *	* 1.179 *	* 1.415 *	* 1.345 *	* 1.423 *	* 1.256 *	* .840 *	
	* 1.288 *	* 1.075 *	* 1.308 *	* 1.261 *	* 1.295 *	* 1.071 *	* .522 *	
	* 1.090 *	* 1.097 *	* 1.082 *	* 1.067 *	* 1.099 *	* 1.173 *	* 1.611 *	
N	* 1.354 *	* 1.432 *	* 1.270 *	* 1.422 *	* 1.358 *	* 1.377 *	* .635 *	
	* 1.285 *	* 1.322 *	* 1.207 *	* 1.294 *	* 1.193 *	* 1.064 *	* .298 *	
	* 1.054 *	* 1.083 *	* 1.053 *	* 1.099 *	* 1.138 *	* 1.294 *	* 2.130 *	
O	* 1.432 *	* 1.336 *	* 1.432 *	* 1.257 *	* 1.378 *	* .920 *		
	* 1.307 *	* 1.224 *	* 1.298 *	* 1.071 *	* 1.065 *	* .485 *		
	* 1.096 *	* 1.091 *	* 1.104 *	* 1.174 *	* 1.294 *	* 1.896 *		
P	* 1.124 *	* 1.420 *	* 1.103 *	* .840 *	* .635 *			
	* .919 *	* 1.156 *	* .765 *	* .522 *	* .298 *			
	* 1.223 *	* 1.228 *	* 1.442 *	* 1.610 *	* 2.130 *			
R	* .561 *	* .691 *	* .526 *					
	* .332 *	* .397 *	* .234 *					
	* 1.691 *	* 1.739 *	* 2.247 *					

OPEAK PIN POWER FOR THIS QUADRANT IS 1.434 AT ASSEMBLY L13