

**Florida  
Power**  
CORPORATION

January 29, 1981

File: 3-0-3-a-3

Mr. Robert W. Reid  
Branch Chief  
Operating Reactors Branch #4  
Division of Operating Reactors  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
Power Level Increase to 2544 MWt

- References:
1. BAW 1607 Rev. 1; "Crystal River Unit 3 Cycle 3 Reload Report"; dated April, 1980.
  2. NRC letter to J. A. Hancock from D. G. Eisenhut, April 4, 1980.
  3. FPC submittal to Director NRR from P. Y. Baynard, May 2, 1980.
  4. FPC submittal to R. W. Reid from P. Y. Baynard, December 5, 1980.
  5. FPC submittal to D. G. Eisenhut from P. Y. Baynard, December 15, 1980.
  6. FPC submittal to Director NRR from P. Y. Baynard, December 31, 1980.

Dear Mr. Reid:

Florida Power Corporation requests the Nuclear Regulatory Commission to review of the Crystal River Unit 3 Cycle 3 Reload Report (Reference 1) with respect to increasing the Crystal River Unit 3 power level to 2544 MWt. Florida Power Corporation has reviewed Mr. Eisenhut's letter (Reference 2), and intends to resolve the stated concerns with the following information and referenced submittals:

1. Differences to Safety Margins Due to Increase in Power to 2544 MWt.

The absolute difference in power level is 3.75%. This difference is accounted for in setting the appropriate limits

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such that the operating margins are largely unaffected. Highlights of the modifications are as follows:

- a. DNBR and central fuel melt limits for steady state operation are maintained by the RPS. The impact of the power level change is accounted for by slight reductions in offset limits, modification of the radial peaking factor, modification to the pressure/temperature limits and use of the BAW-2 thermal-hydraulic correlation.
- b. The ECCS limits are maintained by control of offset, control rod position, power level, and tilt. The impact of the power level change on liner heat rate is accounted for by small reductions in allowable offset and control rod position. The ECCS analysis itself (defining maximum allowable heat rates) was based on a power level of 2772 MWt, which is 109% of the requested power level.
- c. Operation at 2544 MWt requires the addition of a pump monitor trip. With the addition of this hardware, minimum DNBR for various pump related accidents is substantially increased.

Details of the various analyses relative to the FSAR licensing base and licensing related requirements which occurred subsequent to this base (fuel densification, rod bow, etc.) are documented in Reference 1.

2. Crystal River Unit 3 NNI Power Loss Incident, February 26, 1980, Concerns

Florida Power Corporation filed with the NRC a letter (Reference 3) to address the concerns of the NNI Power Loss Incident and actions taken to avoid the recurrence of problems associated with events of this type. This submittal addressed the Nuclear Safety Task Force Priority Items; the FPC Corrective Actions for Startup; B&W Recommendations; NUREG-0667, Transient Response of B&W-Designed Reactors; NRC Confirmatory Order; and INPO/NSAC Recommendations.

3. Three Mile Island 2 Incident, March 28, 1979, Concerns

Florida Power Corporation has filed two letters with the NRC (References 5 & 6) in response to NUREG-0737 - Post-TMI Requirements, as requested in the October 31, 1980, letter from Mr. Darrell G. Eisenhut, Director, Division of Licensing. A third submittal on this subject is scheduled for submittal on January 30, 1981.

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The requested licensed power level of 2544 Mwt is lower than the licensed power level of any other B&W unit. Similar B&W 177 fuel assembly power plants are licensed at power levels of 2568 and 2772 Mwt.

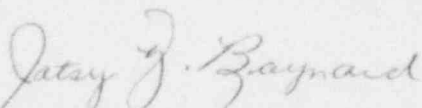
Operation of Crystal River Unit 3 at 2544 Mwt would save approximately 350,000 bbl of oil per year at an approximate cost of \$11,000,000 (cost of oil January, 1981 is approximately \$32.00/bbl). The State of Florida has required all Florida utilities to reduce their fuel oil burn for 1985 to 75% of the fuel oil burned in 1980. The reduction of 350,000 bbl of oil per year would represent 11% of the reduction that Florida Power Corporation would have to make to meet the requirement set by Florida. The reduction in fuel costs of approximately \$11,000,000 per year would assist in reducing the inflationary costs of power to our customers in our service area. Our responsibility as a power company is to pursue alternatives that would also result in financial benefit to customers without incurring any adverse safety impacts.

Responses to NRC concerns and the supporting analysis required for the power level increase have been provided in the Cycle 3 Reload Report, submittals referenced in this letter, and the December 5, 1980, submittal for the completion of Technical Specification Change Request No. 27 (Reference 4), concerning design and technical information for the reactor coolant pump power monitors.

Florida Power Corporation requests that the licensed power level of Crystal River Unit 3 to be increased to 2544 Mwt as expeditiously as possible.

Sincerely,

FLORIDA POWER CORPORATION

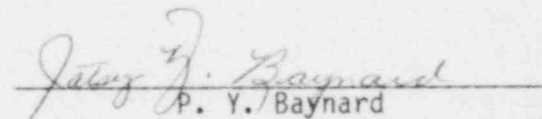


P. Y. Baynard  
Manager  
Nuclear Support Services


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STATE OF FLORIDA  
COUNTY OF PINELLAS

P. Y. Baynard states that she is the Manager, Nuclear Support Services Department of Florida Power Corporation; that she 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 her knowledge, information and belief.

  
P. Y. Baynard

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 29th day of January, 1981.

  
Notary Public

Notary Public, State of Florida at Large,  
My Commission Expires: May 29, 1984

PYB/MAMNotary(DN-98)

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF )  
 )  
FLORIDA POWER CORPORATION )

DOCKET NO. 50-302

CERTIFICATE OF SERVICE

P. Y. Baynard deposes and says that the following has been served on the 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

Review of the Crystal River Unit 3 Cycle E Reload Report with respect to increasing the Crystal River Unit 3 power level to 2544 Mwt.

FLORIDA POWER CORPORATION

*P. Y. Baynard*  
P. Y. Baynard  
Manager  
Nuclear Support Services

SWORN TO AND SUBSCRIBED BEFORE ME THIS 29th DAY OF JANUARY, 1981.

*Marion A. Chismore*  
Notary Public

Notary Public State of Florida at Large  
My Commission Expires: May 29, 1984

(NOTARIAL SEAL)