November 30, 2009

Mr. Jon Franke, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing & Regulatory Programs
15760 W. Power Line Street
Crystal River, Florida 34428-6708

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT, LICENSE RENEWAL APPLICATION (TAC NO. ME0274)

Dear Mr. Franke:

By letter dated December 16, 2008, Florida Power Corporation submitted an application pursuant to Title 10 of the *Code of Federal Regulations,* Part 54, to renew the operating license for Crystal River Unit 3 Nuclear Generating Plant, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Mr. Michael Heath, and a mutually agreeable date for the response is within 60 days from the date of this letter. If you have any questions, please contact me at by telephone at 301-415-3733 or by e-mail at Robert.Kuntz@nrc.gov.

Sincerely,

/RA/

Robert F. Kuntz, Sr. Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure:
As stated

cc w/encl: See next page

November 30, 2009

Mr. Jon Franke, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing & Regulatory Programs
15760 W. Power Line Street
Crystal River, Florida 34428-6708

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT, LICENSE RENEWAL APPLICATION (TAC NO. ME0274)

Dear Mr. Franke:

By letter dated December 16, 2008, Florida Power Corporation submitted an application pursuant to Title 10 of the *Code of Federal Regulations,* Part 54, to renew the operating license for Crystal River Unit 3 Nuclear Generating Plant, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Mr. Michael Heath, and a mutually agreeable date for the response is within 60 days from the date of this letter. If you have any questions, please contact me at by telephone at 301-415-3733 or by e-mail at Robert.Kuntz@nrc.gov.

Sincerely,

/RA/

Robert F. Kuntz, Sr. Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-302
Enclosure:
As stated

cc w/encl: See next page

DISTRIBUTION:
See next page

ADAMS Accession No.: **ML093230559**

OFFICE	PM:RPB2:DLR	LA:RPOB:DLR	BC:DCI:CSGB	BC:RPB2:DLR	PM:RPB2:DLR
NAME	RKuntz	SFigueroa	RTaylor	DWrona	RKuntz (Signature)
DATE	11/23/09	11/20/09	11/24/09	11/24/09	11/30/09

OFFICIAL RECORD COPY

Letter to Jon Franke from Robert F. Kuntz dated November 30, 2009

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT, LICENSE RENEWAL APPLICATION (TAC NO. ME0274)

DISTRIBUTION:

HARD COPY:
DLR RF

E-MAIL:
PUBLIC
RidsNrrDlr Resource
RidsNrrDlrRpb1 Resource
RidsNrrDlrRpb2 Resource
RidsNrrDlrRer1 Resource
RidsNrrDlrRer2 Resource
RidsNrrDlrRerb Resource
RidsNrrDlrRpob Resource
RidsNrrDciCvib Resource
RidsNrrDciCpnb Resource
RidsNrrDciCsgb Resource
RidsNrrDraAfpb Resource
RidsNrrDraApla Resource
RidsNrrDeEmcb Resource
RidsNrrDeEeeb Resource
RidsNrrDssSrxb Resource
RidsNrrDssSbpb Resource
RidsNrrDssScvb Resource
RidsOgcMailCenter Resource

– – – – – – – –

RKuntz
DBrittner
AJones, OGC
LLake, RII
MSykes, RII
TMorrissey, RII
RReyes, RI

REQUEST FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATION
CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT
DOCKET NO: 50-302

RAI B.2.37-2

1. In July 2008, BADGER testing of Carborundum plates at Palisades Nuclear Plant (Palisades) revealed degradation of neutron absorber materials exceeding technical specification requirements. In response to the Palisades operating experience, the U.S. Nuclear Regulatory Commission issued Information Notice 2009-26: "Degradation Of Neutron-Absorbing Materials in the Spent Fuel Pool." Crystal River Unit 3 Nuclear Generating Plant (CR-3) has not provided sufficient information to justify the current surveillance of Carborundum using only a weight loss correlation of a 15% boron loss for a 20% weight loss. Given recent operating experience with Carborundum, discuss how the material condition of Carborundum will be monitored during the period of extended operation aside from the coupon testing and whether neutron attenuation testing will be used during the period of extended operation. If neutron attenuation or a comparable test will be performed, please provide the following:

    - Provide the scope of the testing. Include the structures and components that will be under surveillance.
    - Describe how the neutron-absorbing capacity and degradation of material will be monitored and trended. Include a description of the parameters, calculations, and acceptance criteria pertaining to the additional testing.
    - Discuss how the structures and components will be maintained for the extended licensing period. Please include the methods, techniques (e.g. BADGER testing, blackness testing), frequency, sample size, data collection and timing.
    - Describe the acceptance criteria of the testing and how it ensures that Carborundum's structure and function are maintained over the extended period.
    - Describe the corrective actions that would be implemented if test results are not acceptable (e.g. expansion criteria).

2. The inspection interval for Carborundum was recently extended from every five years to every 10 years. Based on current operating experience, i.e., Palisades, and a 2004 failed sample with weight loss of 21% at CR-3, please provide additional justification for extending the surveillance inspections of the sample coupons to 10 years.

ENCLOSURE

RAI 3.3.2.2.6-2

Discuss the surveillance program that will be implemented for Boral used in the spent fuel storage racks during the extended license period by providing the following:

- Provide the scope of the program. Please include the structures and components that will be under surveillance.
- Describe how the neutron-absorbing capacity and degradation of material will be monitored and trended. Please include a description of the parameters, calculations, and acceptance criteria.
- Discuss how the structures and components will be maintained for the extended licensing period. Include the methods, techniques (e.g., visual, weight, volumetric, surface inspection), frequency, sample size, data collection and timing.
- Describe the acceptance criteria of the program and how it ensures that Boral's structure and function are maintained over the extended period.
- Describe the corrective actions that would be implemented if test results are not acceptable.

RAI B.2.7-2.1

The response to RAI B.2.7-2 (in letter dated October 13, 2009) included a sample list of Condensate System components for which wall thinning is predicted and measured by ultrasonic testing (UT). The list includes the initial wall thickness (nominal), current (measured) wall thickness and the thickness predicted by the CHECWORKS FAC model.

Clarify the information in the Wear Rate Analysis: Combined Summary Report table. In particular, describe the initial, predicted, and measured wall thicknesses. For example, line Item 108-001P has an initial wall thickness of 0.375, a CHECWORKS predicted value of 0.444, and a current measured value of 0.455 mils. Clarify how the current measured thickness is greater than the initial thickness. In addition, provide the initial (measured) wall thickness for each system found in the table.

RAI B.2.16-1.1

The response to RAI B.2.16-1 (in letter dated October 13, 2009) stated that "Performance of UT of the two tanks [FST-2A and FST-2B] is no longer contingent upon whether visual inspection proves inadequate or indeterminate. New preventive maintenance periodic activities using UT and internal tank inspections have recently been generated for FST-2A and FST-2B."

Provide the frequency of UT and internal inspections of the FST-2A and -2B tanks. Discuss whether periodic cleaning of the tanks will be conducted.

Crystal River Unit 3 Nuclear Generating Plant

cc:

Mr. R. Alexander Glenn
Associate General Counsel (MAC-BT15A)
Florida Power Corporation
P.O. Box 14042
St. Petersburg, FL 33733-4042

Mr. James W. Holt
Plant General Manager
Crystal River Nuclear Plant (NA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

Mr. William A. Passetti, Chief
Department of Health
Bureau of Radiation Control
2020 Capital Circle, SE, Bin #C21
Tallahassee, FL 32399-1741

Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, FL 32304

Mr. Ruben D. Almaguer, Director
Division of Emergency Preparedness
Department of Community Affairs
2740 Centerview Drive
Tallahassee, FL 32399-2100

Chairman
Board of County Commissioners
Citrus County
110 North Apopka Avenue
Inverness, FL 34450-4245

Mr. Stephen J. Cahill
Engineering Manager
Crystal River Nuclear Plant (NA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

Mr. Daniel R. Westcott
Supervisor, Licensing & Regulatory Programs
Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428-6708

Senior Resident Inspector
Crystal River Unit 3
U.S. Nuclear Regulatory Commission
6745 N. Tallahassee Road
Crystal River, FL 34428

Mr. Jack E. Huegel
Manager, Nuclear Oversight
Crystal River Nuclear Plant (NA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

Mr. David T. Conley
Associate General Counsel II - Legal Dept.
Progress Energy Service Company, LLC
P.O. Box 1551
Raleigh, NC 27602-1551

Mr. Michael P. Heath
Supervisor, License Renewal
Progress Energy
8470 River Road, 2E
Southport, NC 28461

Mr. Mark Rigsby
Manager, Support Services - Nuclear
Crystal River Nuclear Plant (SA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

Mr. Robert J. Duncan II
Vice President, Nuclear Operations
Progress Energy
P.O. Box 1551
Raleigh, NC 27602-1551

cc:

Mr. Brian C. McCabe
Manager, Nuclear Regulatory Affairs
Progress Energy
P.O. Box 1551
Raleigh, NC 27602-1551