



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 28, 2014

Mr. Terry D. Hobbs
Decommissioning Director
Crystal River Nuclear Plant (NA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 – REQUEST FOR ADDITIONAL INFORMATION ON
THE POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT
(TAC NO. MF3210)

Dear Mr. Hobbs:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing Duke Energy Florida, Inc.'s Post-Shutdown Decommissioning Activities Report, dated December 2, 2013, including the Site-Specific Decommissioning Cost Estimate, pursuant to Title 10 of the *Code of Federal Regulations (10 CFR)*, Part 50, Sections 50.82(a)(4)(i) and 50.82(a)(8)(iii) for Crystal River Unit 3 (CR-3). The staff is also reviewing the Updated Irradiated Fuel Management Program per 10 CFR 50.54(bb), dated December 3, 2013, for CR-3.

The NRC staff determined that additional information is needed to complete our review. Attached is our list of information requests. The NRC staff requests that you respond to them within 30 days of the date of this letter.

If you have any questions, please contact me at 301-415-1055 or via e-mail at Christopher.Gratton@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Gratton", is written over a horizontal line.

Christopher Gratton, Senior Project Manager
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure:
As stated

cc w/enclosure: Distribution via Listserv

REQUESTS FOR ADDITIONAL INFORMATION

DUKE ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NO. 50-302

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing Duke Energy Florida's (DEF's) Post-Shutdown Decommissioning Activities Report (PSDAR) dated December 2, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13340A009), and attached Site-Specific Decommissioning Cost Estimate (DCE) (ADAMS Accession No. ML13343A178) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Sections 50.82(a)(4)(i) and 50.82(a)(8)(iii) for Crystal River Unit 3 (CR-3). The staff is also reviewing the Updated Irradiated Fuel Management Program for CR-3 per 10 CFR 50.54(bb), dated December 3, 2013 (ADAMS Accession No. ML13340A008).

The NRC received comments from the public, which were used by the staff in the development of the following information request.

RAI #1:

Per 10 CFR 50.82(a)(4)(i), licensees must submit a PSDAR that has a Site-Specific DCE. Regulatory Guide 1.185 Revision 1, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," indicates that the amount in the cost estimate cannot be less than the minimum amount calculated from 10 CFR 50.75(c). DEF did not provide the minimum amount from 10 CFR 50.75(c). Provide the minimum formula amount per 10 CFR 50.75(c)(1) for CR-3 in 2013 dollars. The staff requires assurance that the Site-Specific DCE for radiological decommissioning is not less than the minimum formula amount.

RAI #2:

Per 10 CFR 50.82(a)(4)(i), licensees must include in their Site-Specific DCEs costs for managing spent fuel. Section 50.54(bb) of 10 CFR requires licensees to provide a plan for management of spent fuel within 2 years of permanent cessation of operations. Provide additional information on "internal probability assessment" related to the dates when the Department of Energy (DOE) will assume control of spent nuclear fuel. Why did DEF assume 2032 as the first year that DOE will assume control of spent nuclear fuel in the country as discussed in Section 1 of the Site-Specific DCE?

RAI #3:

Per 10 CFR 50.82(a)(8)(iii), licensees must submit a Site-Specific DCE. Guidance for providing DCEs is provided in Regulatory Guide 1.202, "Standard Format and Content of Decommissioning Cost Estimates for Nuclear Power Reactors" (ADAMS Accession No. ML050230008).

Enclosure

Since information provided in the Site-Specific DCE is needed for reasonable assurance of availability of funds for decommissioning, the staff requests that DEF address the difference in Class B and C waste volume compared to the reference Pressurized-Water Reactor (PWR) in NUREG-1713, "Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Reactors" (ADAMS Accession No. ML043510113). The staff noted an 83-percent difference between combined Class B and C waste volume from Table 5.1 in the CR-3 Site-Specific DCE (1338 cubic feet) compared to those for the reference PWR in NUREG-1713, Table 20 (9900 cubic feet).

RAI #4:

Per 10 CFR 50.82(a)(8)(iii), licensees must submit a Site-Specific DCE. Guidance for providing DCEs is provided in Regulatory Guide 1.202, "Standard Format and Content of Decommissioning Cost Estimates for Nuclear Power Reactors" (ADAMS Accession No. ML050230008).

The staff requests that DEF address the difference in cost between Period 1, Planning and Preparation from NUREG-1713, Table 6, and the Site-Specific DCE Planning and Preparation amount from Table 2. In Table 2 of the Site-Specific DCE, DEF assumed approximately \$145 million in 2013 dollars. Table 6 of NUREG-1713 assumes \$14.5 million, in 2000 dollars. Assuming an adjustment per the Consumer Price Index, from 2000 dollars to 2013 dollars, NUREG-1713 Planning and Preparation costs would be approximately \$20 million.

RAI #5:

Florida Public Service Commission (FPSC) Order No. PSC-13-0452-FOF-EI permits DEF to allocate its decommissioning trust fund among the three categories of license termination, spent fuel management, and site restoration. However, when requested by the licensee, the FPSC did not issue a declaratory statement prohibiting spent fuel management and site restoration funds to be used for license termination costs without FPSC approval. According to 10 CFR 50.82(8)(i)(A), "Decommissioning trust funds may be used by licensees if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in §50.2." It is not clear to the NRC staff what portion of the nuclear decommissioning trust fund is meant for decommissioning as defined in 10 CFR 50.2.

DEF should provide documentation from the FPSC authorizing collections for decommissioning that describe the flow of funds into each of the three categories listed above, and the growth of those funds to their current amount. Information needed by the staff includes contributions by fund category, FPSC orders, and rates of returns on each of the funds.

RAI #6:

Section 50.82(a)(8)(vi) of 10 CFR states: "If the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2-percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning, the

financial assurance status report must include additional financial assurance to cover the estimated cost of completion.”

In the 2011 Preliminary DCE for CR-3 (ADAMS Accession No. ML113390139), a 2-percent real rate of return was assumed in Table 3. In the PSDAR Table 4, the real rate of return was lowered to 1.65 percent. The staff requests that DEF provide the FPSC Order authorizing DEF to use a real rate of return of 1.65 percent.

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Christopher Gratton, Senior Project Manager
Plant Licensing IV-2 and Decommissioning
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ADAMS Accession No.: ML14104A039

***Memo dated**

OFFICE	NRR/DORL/LPL4-2/PM	NRR/DORL/LPL4-2/LA	NRR/DIRS/IFIB/BC	NRR/DORL/LPL4-2/bc
NAME	CGratton	BClayton	AKock*	DBroaddus
DATE	4/14/14	4/14/14	3/11/2014	4/28/14

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