



Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428

Docket 50-302
Operating License No. DPR-72

10 CFR 50.12

March 28, 2014
3F0314-05

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Crystal River Unit 3 – Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2)

- References:
1. NRC to CR-3 letter dated March 13, 2013, "Crystal River Unit 3 Nuclear Generating Plant Certification of Permanent Cessation of Operation and Permanent Removal of Fuel From the Reactor" (ADAMS Accession No. ML13058A380)
 2. CR-3 to NRC letter dated December 2, 2013, "Crystal River Unit 3 – Post-Shutdown Decommissioning Activities Report" (ADAMS Accession No. ML13340A009)
 3. CR-3 to NRC letter dated December 3, 2013, "Crystal River Unit 3 – Update to Irradiated Fuel Management Program Pursuant to 10 CFR 50.54(bb)" (ADAMS Accession No. ML13340A008)
 4. FPSC, Docket No. 130207-EI / Order No. PSC-13-0452-FOF-EI, *In re: Petition for declaratory statement with respect to use of decommissioning trust fund dollars for spent fuel and other non-radiological decommissioning costs for Crystal River 3 Nuclear Plant.* (Issued October 9, 2013)

Dear Sir:

Pursuant to 10 CFR 50.12, Duke Energy Florida, Inc. (DEF), on behalf of itself and the Crystal River Unit 3 (CR-3) co-owners, requests exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) to allow the CR-3 decommissioning trust funds (DTFs) held by DEF and the co-owners to be used for spent fuel management and site restoration activities. DEF also requests, on behalf of itself and the CR-3 co-owners, pursuant to 10 CFR 50.12, an exemption from 10 CFR 50.75(h)(2) to allow CR-3 DTF disbursements for spent fuel management and site restoration activities to be made without prior notice, similar to withdrawals in accordance with 10 CFR 50.82(a)(8).

10 CFR 50.82(a)(8)(i)(A) specifies that DTFs may be used by licensees if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2. 10 CFR 50.75(h)(2) similarly requires that trust agreements restrict disbursements to decommissioning expenses until final decommissioning is completed. 10 CFR 50.75(h)(2) also requires a 30-day advance notification to allow disbursements for activities not associated with decommissioning. The 10 CFR 50.2 definition of decommission does not include activities associated with spent fuel management or site restoration.

In Reference 1, the Nuclear Regulatory Commission (NRC) acknowledged CR-3's certification of permanent cessation of power operation and permanent removal of fuel from the reactor vessel. In Reference 2, DEF, on behalf of itself and the CR-3 co-owners, submitted a Post-Shutdown Decommissioning Activities Report (PSDAR), pursuant to 10 CFR 50.82(a)(4)(i), that includes the estimated costs of radiological decommissioning, spent fuel management, and site

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restoration. In Reference 3, DEF, on behalf of itself and the CR-3 co-owners, submitted the updated Irradiated Fuel Management Program, pursuant to 10 CFR 50.54(bb), reflecting intended reliance on the DTF as an element of the financial assurance for spent fuel management and for site restoration with the exception of certain independent spent fuel storage installation (ISFSI) capital costs that are being funded separately.

References 2 and 3 identify activities that require access to the DTFs that have been established by DEF, at the direction of the Florida Public Service Commission (FPSC), and by each of the co-owners. Pursuant to orders from the FPSC, DEF is obligated to maintain funds for spent fuel management and site restoration, in addition to the decommissioning activities defined by the NRC regulations. The clear intent of the FPSC is demonstrated by a recent Declaratory Statement issued by the FPSC in Order No PSC-13-0452-FOF-EI (Reference 4), in which the FPSC provided that certain portions of the DTF for CR-3 are to be used for all three categories of costs. While DEF does not believe that the NRC rules preclude use of funds in a DTF for spent fuel management and site restoration where such funds have been collected and set aside for such purposes, as evinced by the FPSC Order, DEF and its co-owners are seeking exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) to establish with certainty that the CR-3 DTFs may be used for spent fuel management and site restoration activities, and to maximize the flexibility of DEF and its co-owners to use the entirety of the DTFs for all three purposes. This will align NRC's authorization with the use intended by the applicable rate-setting authority. The financial analysis contained in the Attachment to this letter demonstrates that CR-3 DTFs are sufficient to cover all costs other than the ISFSI capital costs that are being funded separately.

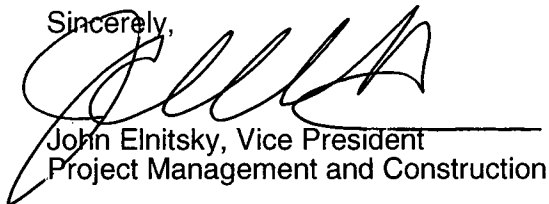
The exemption requests are contained in the Enclosure to this letter. DEF requests approval of the exemption requests by December 31, 2014.

There are no new regulatory commitments made within this submittal.

If you have any questions regarding this submittal, please contact Mr. Dan Westcott, Regulatory Affairs Manager at (352) 563-4796.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 28, 2014.

Sincerely,



John Elnitsky, Vice President
Project Management and Construction

JE/sam

Enclosure: Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2)

Attachment: Financial Analysis

xc: NRR Project Manager
Regional Administrator, Region I

DUKE ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

ENCLOSURE

**REQUEST FOR EXEMPTIONS FROM
10 CFR 50.82(a)(8)(i)(A) AND 10 CFR 50.75(h)(2)**

REQUEST FOR EXEMPTIONS FROM 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2)

A. Background

Crystal River Unit 3 (CR-3) is a single unit pressurized water reactor that is part of the larger Crystal River Energy Complex, located on the Gulf of Mexico in Citrus County, Florida. It is owned by Duke Energy Florida, Inc. (DEF), City of Alachua, City of Bushnell, City of Gainesville, City of Kissimmee, City of Leesburg, City of New Smyrna Beach, City of Ocala, Orlando Utilities Commission, and Seminole Electric Cooperative, Inc., all of whom are electric utilities as defined by the Nuclear Regulatory Commission (NRC). DEF recovers its costs through cost-of-service rates set by the Florida Public Service Commission (FPSC). The other co-owners are municipally owned or cooperative electric providers with the independent authority to set their own rates and assumptions regarding needs for decommissioning. Each of the co-owners has established a decommissioning trust fund (DTF) for CR-3. DEF also has access to an additional DTF established by the former co-owner City of Tallahassee (Note 1). DEF is the majority owner and operator of CR-3 and holds a 91.7806 percent ownership interest in CR-3. The remaining 8.2194 percent ownership interest in CR-3 is held by the nine minority owners with DTFs in separate, tax exempt accounts. DEF holds both a qualified and non-qualified DTF with the overwhelming majority of funds held in its qualified fund.

On February 20, 2013, DEF informed the NRC that CR-3 had permanently ceased operations and that the fuel had been permanently removed from the reactor vessel (Reference 2). On March 13, 2013, the NRC acknowledged the CR-3 certificate of permanent cessation of power operation and permanent removal of fuel from the reactor vessel (Reference 3). Therefore, pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for CR-3 no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel.

On December 2, 2013, DEF submitted the CR-3 Post-Shutdown Decommissioning Activities Report (PSDAR) (Reference 4), pursuant to 10 CFR 50.82(a)(4)(i). The PSDAR contains an estimate of the costs for license termination, spent fuel management, and site restoration. As discussed in the CR-3 PSDAR, DEF plans to maintain CR-3 in a safe storage condition for an extended period prior to completion of radiological decommissioning. This will allow radioactive decay to occur, thereby reducing the quantity of contamination and radioactivity that must be disposed of during the decontamination and dismantlement process as well as reducing the associated occupational exposure.

On December 3, 2013, DEF submitted the updated Irradiated Fuel Management Program, pursuant to 10 CFR 50.54(bb), reflecting intended reliance on the DTFs as an element of the financial assurance for spent fuel management and for site restoration with the exception of certain independent spent fuel storage installation (ISFSI) capital costs that are being funded separately (Reference 5). The financial analysis contained in the Attachment to this submittal demonstrates that CR-3 DTFs are sufficient to cover all costs other than the ISFSI capital costs that are being funded separately.

1: In 1999, License Amendment No. 189 approved the transfer of the City of Tallahassee's 1.3333-percent ownership interest in CR-3 to Florida Power Corporation (now DEF). DEF presides over the City of Tallahassee's DTF in accordance with an Order (Reference 1) that accompanied the license transfer. The license transfer Order contained the following conditions:

- The use of assets in the City's existing non-qualified decommissioning trust fund for CR-3 (Decommissioning Trust Fund) shall be limited to the expenses related to decommissioning of CR-3 as defined by the NRC in its regulations and issuances, and as provided in the CR-3 license and any amendments thereto.
- No disbursements or payments from the Decommissioning Trust Fund shall be made by the trustee until the trustee has first given the NRC thirty (30) days notice of payment. No disbursements or payments from the Decommissioning Trust Fund shall be made if the trustee receives prior written notice of objection from the Director, Office of Nuclear Reactor Regulation, NRC.

B. Request

Pursuant to 10 CFR 50.12, "Specific exemptions," DEF requests, on behalf of itself and the CR-3 co-owners, exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) to allow CR-3 DTFs to be used for spent fuel management and site restoration activities. Reference 5 reflects DEF's intention to use CR-3 DTFs for spent fuel management and site restoration activities. DEF also requests, on behalf of itself and the CR-3 co-owners, pursuant to 10 CFR 50.12, an exemption from 10 CFR 50.75(h)(2) to allow CR-3 DTF disbursements for spent fuel management and site restoration activities to be made without prior notice, similar to radiological decommissioning withdrawals in accordance with 10 CFR 50.82(a)(8). This would eliminate the need for prior notice, as the expenditures have been identified in the CR-3 PSDAR.

10 CFR 50.82(a)(8)(i)(A) and the applicable provisions of 10 CFR 50.75(h)(2) are provided below:

Section (a)(8)(i)(A) of 10 CFR 50.82, "Termination of license," states the following:

"Decommissioning trust funds may be used by licensees if-- (A) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2."

Section (h)(2) of 10 CFR 50.75, "Reporting and recordkeeping for decommissioning planning," states, in part:

"Licensees that are 'electric utilities' under § 50.2 that use prepayment or an external sinking fund to provide financial assurance shall include a provision in the terms of the trust, escrow account, Government fund, or other account used to segregate and manage funds that except for withdrawals being made under § 50.82(a)(8) or for payments of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, no disbursement or payment may be made from the trust, escrow account, Government fund, or other account used to segregate and manage the funds until written notice of the intention to make a disbursement or payment has been given the Director, Office of Nuclear Reactor Regulation, Director, Office of New Reactors, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment."

Section (h)(2) of 10 CFR 50.75 also states, in part:

"Disbursements or payments from the trust, escrow account, Government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed."

10 CFR 50.2, "Definitions," contains the following definition of decommission:

"to remove a facility or site safely from service and reduce residual radioactivity to a level that permits - (1) Release of the property for unrestricted use and termination of the license; or (2) Release of the property under restricted conditions and termination of the license."

This definition does not include activities associated with spent fuel management or site restoration.

C. Basis

Tables 3.2, 3.3, and 3.4 in Attachment 1 of Reference 4 delineate the annual expenditures for license termination, spent fuel management, and site restoration, respectively. The financial analysis contained in Reference 5 for license termination, spent fuel management, and site restoration has been updated and is provided in the Attachment to this submittal.

This financial analysis demonstrates that CR-3 DTFs are sufficient to cover license termination, spent fuel management, and site restoration expenses excluding a portion of ISFSI capital costs which will be funded separately. The financial analysis in the Attachment assumes a 2% real rate of return on CR-3 DTFs and 0% escalation on license termination, spent fuel management, and site restoration costs. An anticipated 1.65% real rate of return was used for financial analysis provided in References 4 and 5; however, 10 CFR 50.82(a)(8)(vi) permits the use of a real rate of return up to 2% for purposes of financial assurance demonstration and is therefore used in the financial analysis in the Attachment. The financial analysis in the Attachment indicates that a surplus of approximately \$356 million is available in CR-3 DTFs at the end of 2074.

With respect to the \$93.8 million estimate for ISFSI capital costs presented in Reference 4, DEF's portion of these costs will not be recovered from the DEF DTF. DEF anticipates that these costs will be recovered through a Revised Settlement Agreement that was recently approved by the FPSC in Order No. PSC-13-0598-FOF-EI (Reference 6). Paragraph 5e(1) of the Revised Settlement Agreement allows DEF to petition the FPSC for ISFSI capital expenses.

Use of the DEF DTF for spent fuel management and site restoration is consistent with the Declaratory Statement issued by the FPSC in Order No PSC-13-0452-FOF-EI (Reference 7) that establishes the FPSC's intention that decommissioning funds collected from DEF customers be used for license termination, spent fuel management and site restoration purposes.

DEF's DTF holds money collected from ratepayers pursuant to the FPSC orders, based on site-specific cost estimates that include radiological decommissioning, spent fuel management, and site restoration. The FPSC approves periodic updates to these site specific estimates, allowing DEF to seek recovery of additional funding from ratepayers when necessary.

The DTFs established by the other co-owners also hold funds collected from ratepayers based on the site-specific cost estimates that include radiological decommissioning, spent fuel management, and site restoration. Pursuant to their independent rate-setting authority, the co-owners may also collect additional funding from rate payers when necessary. DEF is submitting this request, on behalf of itself and the CR-3 co-owners, for exemption from 10 CFR 50.82(a)(8)(i)(A) and 50.75(h)(2) to obtain confirmation that the funds in the CR-3 DTFs may be used for spent fuel management and site restoration. This will align NRC's authorization with the use intended by the applicable rate-setting authority.

Consistent with 10 CFR 50.82(a)(8)(iv) and Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," Revision 2 (Reference 8), DEF will update the CR-3 decommissioning cost estimate periodically. As electric utilities, defined in 10 CFR 50.2, DEF and the co-owners have the means of adjusting funding levels as necessary.

The financial assurance status reports required annually by 10 CFR 50.82(a)(8)(v), (vi), and (vii), will allow the NRC to monitor these expenditures and any necessary adjustments to the CR-3 DTFs.

D. Discussion

The 10 CFR 50.12, "Specific exemptions," provisions with respect to the requested exemptions are discussed below.

10 CFR 50.12 (a)(1): Authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.

10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR Part 50. The proposed exemptions would not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore the exemptions are authorized by law.

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) is to provide assurance that adequate funds will be available to complete decommissioning of power reactors within 60 years of cessation of operations.

Based on the site-specific decommissioning cost estimate contained in Reference 4 and the financial analysis presented in the Attachment to this submittal, use of the CR-3 DTFs in the proposed manner will not adversely impact DEF's ability to terminate the CR-3 license within 60 years. Therefore, the underlying purpose of the regulation will continue to be met and the exemptions will not present an undue risk to the public health and safety.

The proposed exemptions would allow CR-3 DTFs to be used for spent fuel management and site restoration activities consistent with Reference 4. Spent fuel management and site restoration activities are an integral part of the planned CR-3 decommissioning process. Use of CR-3 DTFs, as discussed in the Reference 4, will not adversely affect CR-3's ability to physically secure the site or protect special nuclear material. Therefore, the proposed exemptions are consistent with the common defense and security.

10 CFR 50.12 (a)(2): The Commission will not consider granting an exemption unless special circumstances are present.

Pursuant to 10 CFR 50.12(a)(2), the NRC will not consider granting an exemption to its regulations unless special circumstances are present. CR-3 believes that special circumstances are present as discussed below.

10 CFR 50.12 (a)(2)(ii): Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) is to provide assurance that adequate funds will be available to complete decommissioning of power reactors within 60 years of cessation of operations. Strict application of the rule would prohibit withdrawal of the CR-3 DTFs for activities associated with spent fuel management or site restoration until the CR-3 license has been terminated. However, the site-specific decommissioning financial analysis in the Attachment demonstrates that adequate CR-3 DTFs are available to complete all decommissioning activities, including license termination, spent fuel management (other than the ISFSI capital costs that are being funded separately), and site restoration. The analysis projects that at the end of site restoration activities, a surplus of \$356 million will remain. Additionally, prohibiting use of the CR-3 DTFs for spent fuel and site restoration activities would be in direct conflict with the clear order issued by the FPSC, which reviewed and approved the collection of funds from DEF's customers.

The 30-day notification provision in 10 CFR 50.75(h)(2) was not intended to duplicate other reporting requirements that would exist after a plant commences decommissioning. If the NRC grants the requested exemptions allowing DTFs to be used for spent fuel management and site restoration activities, the same consideration would justify dispensing with the 30-day notification requirement as well. The annual reporting requirements promulgated in 10 CFR 50.82(a)(8)(v), (vi), and (vii) allow NRC oversight of the status of CR-3 DTFs. 10 CFR 50.82(a)(8)(vi) requires an annual demonstration that the balance of the remaining decommissioning fund and credited earnings are sufficient to cover the estimated cost to complete decommissioning, and requires additional financial assurance if this test is not met. Thus, the NRC will be able to continually determine that permitted expenditures for spent fuel management and site restoration are not preventing adequate funding for the completion of radiological decommissioning. As all of the owners are electric utilities, all of the owners have the means of providing additional funding if necessary. Applying the 30-day advance notification requirement in 10 CFR 50.75(h)(2) to disbursements for spent fuel management and site restoration activities would duplicate these other reporting requirements and is not necessary to achieve the underlying purpose of this rule.

Therefore, since the underlying purpose of the rule would be achieved by allowing the CR-3 DTFs to be used for spent fuel management and site restoration activities, special circumstances are present as defined in 10 CFR 50.12(a)(2)(ii).

10 CFR 50.12 (a)(2)(iii): Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

The NRC did not intend to prevent the use of these funds solely because they are commingled, and to do so would create an unnecessary financial burden without any corresponding safety benefit. The adequacy of the CR-3 DTFs to cover the cost of activities associated with the different elements of decommissioning (including the spent fuel management and site restoration) is supported by the financial analysis in the Attachment. If the CR-3 DTFs cannot be used for spent fuel management and site restoration activities, DEF and the other co-owners would be forced to seek recovery of additional funds from ratepayers. This would impose an unnecessary burden in excess of that contemplated when the regulation was adopted. This would also be in direct conflict with the clear order issued by the FPSC, which reviewed and approved the collection of funds from DEF's customers.

The annual reporting requirements promulgated in 10 CFR 50.82(a)(8)(v), (vi), and (vii) allow NRC oversight of the status of CR-3 DTFs. Applying the 30-day advance notification requirement in 10 CFR 50.75(h)(2) to disbursements for spent fuel management and site restoration activities would duplicate these other reporting requirements and is not necessary to achieve the underlying purpose of this rule.

Therefore, compliance with the rule would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated. Therefore, the special circumstances as required by 10 CFR 50.12(a)(2)(iii) are present.

10 CFR 50.12 (a)(2)(iv): The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption.

The proposed exemptions would allow the use of the CR-3 DTFs for spent fuel management and site restoration activities identified in Reference 4. There is no decrease in safety

associated with the CR-3 DTFs being used to fund activities associated with spent fuel management and site restoration. The annual reporting requirements promulgated in 10 CFR 50.82(a)(8)(v), (vi), and (vii) allow NRC oversight of the status of CR-3 DTFs. Applying the 30-day advance notification requirement in 10 CFR 50.75(h)(2) to disbursements for spent fuel management and site restoration activities would duplicate these other reporting requirements and is not necessary to achieve the underlying purpose of this rule.

The exemptions would allow CR-3 to manage spent fuel and complete site restoration in accordance with Reference 4. As discussed in Reference 4, DEF plans to use a SAFSTOR method of decommissioning. This method meets the objective of maintaining radiation exposures as low as reasonably achievable, pursuant to 10 CFR 20.1101(b), by allowing for the natural decay of radioactively contaminated material prior to completing radiological decommissioning. This method also reduces the quantity and activity of radioactive wastes that require offsite disposal.

Therefore, these exemptions would result in a benefit to the public health and safety and would not result in a decrease in safety, and the special circumstances required by 10 CFR 50.12(a)(2)(iv) exist.

E. Environmental Consideration

The proposed exemptions that permit utilizing a portion of the CR-3 DTFs for spent fuel management and site restoration meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(25), because the proposed exemptions involve: (i) no significant hazards consideration; (ii) no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) no significant increase in individual or cumulative public or occupational radiation exposure; (iv) no significant construction impact; (v) no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which the exemption are sought involve safeguards plans or other requirements of an administrative, managerial or organizational nature. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed exemptions.

(i) No significant hazards consideration

Duke Energy Florida, Inc. (DEF) has evaluated the proposed exemptions to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92 as discussed below:

- (1) *Do the proposed exemptions involve a significant increase in the probability or consequences of an accident previously evaluated?*

The proposed exemptions would allow the Crystal River Unit 3 (CR-3) decommissioning trust funds (DTFs) to be used for spent fuel management and site restoration activities identified in the CR-3 Post-Shutdown Decommissioning Activities Report. Additionally, the proposed exemption from the 30-day advance notification requirement in 10 CFR 50.75(h)(2), for disbursements for spent fuel management and site restoration activities, would avoid duplication of other reporting requirements. The proposed exemptions have no effect on structures, systems, and components (SSCs) and no effect on the capability of any plant SSC to perform its design function. The proposed exemptions would not increase the likelihood of the malfunction of any plant SSC. The proposed exemptions

would have no effect on any of the previously evaluated accidents in the CR-3 Final Safety Analysis Report, as the source of the funding used for spent fuel management and site restoration has no impact on the handling or storage of the spent fuel. Use of the CR-3 DTFs, as allowed under the exemptions, will not affect the probability of occurrence or consequences of any previously analyzed accident. The proposed exemptions do not change the requirements pertaining to spent fuel management and site restoration activities.

Therefore, the proposed exemptions do not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) *Do the proposed exemptions create the possibility of a new or different kind of accident from any accident previously evaluated?*

The proposed exemptions permit utilizing a portion of the CR-3 DTFs for spent fuel management and site restoration. Additionally, the proposed exemption from the 30-day advance notification requirement in 10 CFR 50.75(h)(2), for disbursements for spent fuel management and site restoration activities, would avoid duplication of other reporting requirements. These exemptions do not involve any change in the plant's design, configuration, or operation. The proposed changes have no impact on facility SSCs affecting the safe storage of spent fuel, or on the methods of operation of such SSCs, or on the handling and storage of spent fuel itself. As a result of the certifications submitted by DEF in accordance with 10 CFR 50.82(a)(1), and the consequent removal of authorization to operate the reactor or to place or retain fuel in the reactor in accordance with 10 CFR 50.82(a)(2), there cannot be any reactor-related transients.

The proposed exemptions do not result in any new mechanisms that could initiate damage to the remaining relevant safety barriers for defueled plants (i.e., fuel cladding and spent fuel pool inventory). Since extended operation in a defueled condition is the only operation currently allowed, and therefore bounded by the existing analyses, such a condition does not create the possibility of a new or different kind of accident.

The proposed exemptions do not introduce a new mode of plant operation or new accident precursors, does not involve any physical alterations to plant configuration, or make changes to system set points that could initiate a new or different kind of accident.

Therefore, the proposed exemptions do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- (3) *Do the proposed exemptions involve a significant reduction in a margin of safety?*

The proposed exemptions do not involve a change in the plant's design, configuration, or operation. The proposed exemptions do not affect either the way in which the plant SSCs perform their safety function or its design and licensing bases.

Plant safety margins are established through Limiting Conditions for Operation, Limiting Safety System Settings and Safety Limits specified in the CR-3 Improved Technical Specifications. Because there is no change to the physical design of the plant, there is no change to any of these margins.

Because the 10 CFR Part 50 license for CR-3 no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, as specified in 10

CFR 50.82(a)(2), the occurrence of postulated accidents associated with reactor operation is no longer credible. The proposed exemptions do not impact the safe storage of spent fuel. The exemptions do not affect any requirements for SSCs credited in the remaining analyses of applicable postulated accidents; and as such, do not affect the margin of safety associated with these accident analyses. Postulated design basis accidents involving the reactor are no longer possible because the reactor is permanently shut down and defueled and CR-3 is no longer authorized to operate the reactor.

Therefore, the proposed exemptions do not involve a significant reduction in a margin of safety.

Based on the above, DEF concludes that the proposed exemptions do not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c). Accordingly, a finding of "no significant hazards consideration" is justified.

- (ii) **There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.**

There are no expected changes in the types, characteristics, or quantities of effluents discharged to the environment associated with the proposed exemptions. There are no materials or chemicals introduced into the plant that could affect the characteristics or types of effluents released offsite. In addition, the method of operation of waste processing systems will not be affected by the exemptions. The proposed exemptions will not result in changes to the design basis requirements of SSCs that function to limit or monitor the release of effluents. All the SSCs associated with limiting the release of effluents will continue to be able to perform their functions. Therefore, the proposed exemptions will result in no significant change to the types or significant increase in the amounts of any effluents that may be released offsite.

- (iii) **There is no significant increase in individual or cumulative occupational radiation exposure.**

The exemptions would result in no expected increases in individual or cumulative occupational radiation exposure on either the workforce or the public. There are no expected changes in normal occupational doses.

- (iv) **There is no significant construction impact.**

No construction activities are associated with the proposed exemptions.

- (v) **There is no significant increase in the potential for consequences from radiological accidents.**

The exemptions would allow for the spent fuel management and site restoration activities to be funded by the CR-3 DTFs. Additionally, the proposed exemption from the 30-day advance notification requirement in 10 CFR 50.75(h)(2), for disbursements for spent fuel management and site restoration activities, would avoid duplication of other reporting requirements. The change in the source of funding for spent fuel management and site restoration activities would not result in activities that increase the potential for an accident with radiological consequences.

- (vi) **The requirements from which exemptions are sought involve safeguard plans or other requirements of an administrative, managerial or organizational nature.**

The underlying purpose of the requirements from which exemptions are sought is to provide reasonable assurance that adequate funds will be available for decommissioning of power reactors within 60 years of cessation of operations. The exemptions would allow for the use of the CR-3 DTFs for activities other than license termination activities, which are administrative requirements. The intent of the regulation is still met since sufficient funding exists to accomplish all site closure activities.

F. Conclusion

Pursuant to the provisions of 10 CFR 50.12, "Specific exemptions," DEF is requesting, on behalf of itself and the CR-3 co-owners, exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(2) for CR-3. The proposed exemptions would allow the CR-3 DTFs to be used for spent fuel management and site restoration activities identified in the CR-3 Post-Shutdown Decommissioning Activities Report. DEF also requests, on behalf of itself and the CR-3 co-owners, an exemption from 10 CFR 50.75(h)(2) to allow CR-3 DTF disbursements for spent fuel management and site restoration activities to be made without prior notice, similar to radiological decommissioning withdrawals in accordance with 10 CFR 50.82(a)(8).

Granting these exemptions will be consistent with the purposes underlying NRC decommissioning regulations as it: (1) would not foreclose release of the site for possible unrestricted use; (2) would not result in significant environmental impacts not previously reviewed by the NRC; and (3) would not undermine the existing and continuing reasonable assurance that adequate funds will be available for decommissioning. Granting these exemptions will also be consistent with the clear directive from the FPSC with respect to the purpose of the funds collected from DEF's customers for deposit into the DTF.

Therefore, these requested exemptions are authorized by law, will not present an undue risk to the public health and safety, are consistent with the common defense and security, and special circumstances are present as set forth in 10 CFR 50.12(a)(2).

References

1. NRC to CR-3 letter, "Order Approving the Transfer of License for Crystal River Unit 3 to the Extent Held by the City of Tallahassee to Florida Power Corporation and Approving Conforming Amendment (TAC No. MA4527)," dated September 8, 1999. (ADAMS Accession No. ML020670117)
2. CR-3 to NRC letter, "Crystal River Unit 3 - Certification of Permanent Cessation of Power Operations and that Fuel Has Been Permanently Removed from the Reactor," dated February 20, 2013. (ADAMS Accession No. ML13056A005)
3. NRC to CR-3 letter, "Crystal River Unit 3 Nuclear Generating Plant Certification of Permanent Cessation of Operation and Permanent Removal of Fuel From the Reactor," dated March 13, 2013. (ADAMS Accession No. ML13058A380)
4. CR-3 to NRC letter, "Crystal River Unit 3 – Post-Shutdown Decommissioning Activities Report," dated December 2, 2013. (ADAMS Accession No. ML13340A009)

5. CR-3 to NRC letter, "Crystal River Unit 3 – Update to Irradiated Fuel Management Program Pursuant to 10 CFR 50.54(bb)," dated December 3, 2013. (ADAMS Accession No. ML13340A008)
6. FPSC, Docket No. 130208-EI / Order No. PSC-13-0598-FOF-EI, *In re: Petition for limited proceeding to approve revised and restated stipulation and settlement agreement by Duke Energy Florida, Inc. d/b/a Duke Energy, Florida Public Service Commission.* (Issued November 12, 2013)
7. FPSC, Docket No. 130207-EI / Order No. PSC-13-0452-FOF-EI, *In re: Petition for declaratory statement with respect to use of decommissioning trust fund dollars for spent fuel and other non-radiological decommissioning costs for Crystal River 3 Nuclear Plant.* (Issued October 9, 2013)
8. Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," Revision 2, dated October 2011.

DUKE ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

ATTACHMENT

FINANCIAL ANALYSIS

Crystal River Unit 3 - Access to Decommissioning Trust Funds
Attachment - Financial Analysis

	Column A	Column B	Column C	Column D	Column E	Column F
	Annual Expenses	Annual Expenses	Annual Expenses	Total Expenses	Projected Earnings	End-of-year Fund Balances
	License Termination Cost (in thousands)	Spent Fuel Cost (in thousands)	Site Restoration Cost (in thousands)	Total Cost (in thousands)	Annual Earnings on Decommissioning Trust Fund at 2% (in thousands)	All Owners Decommissioning Trust Fund Escalated at 2% (minus 100% of expenses) (in thousands)
2013						824,788
2014	101,152	27,422	0	128,574	15,210	711,423
2015	47,935	30,015	0	77,950	13,449	646,923
2016	6,831	37,687	0	44,518	12,493	614,898
2017	6,812	35,683	0	42,495	11,873	584,276
2018	6,812	35,683	0	42,495	11,261	553,042
2019	6,275	23,675	0	29,950	10,761	533,853
2020	5,437	4,611	0	10,048	10,577	534,382
2021	5,422	4,598	0	10,020	10,587	534,949
2022	5,422	4,598	0	10,020	10,599	535,528
2023	5,422	4,598	0	10,020	10,610	536,118
2024	5,437	4,611	0	10,048	10,622	536,692
2025	5,422	4,598	0	10,020	10,634	537,306
2026	5,422	4,598	0	10,020	10,646	537,932
2027	5,422	4,598	0	10,020	10,658	538,570
2028	5,437	4,611	0	10,048	10,671	539,193
2029	5,422	4,598	0	10,020	10,684	539,857
2030	5,422	4,598	0	10,020	10,697	540,534
2031	5,422	4,598	0	10,020	10,710	541,224
2032	5,437	4,611	0	10,048	10,724	541,900
2033	5,422	4,598	0	10,020	10,738	542,618
2034	5,422	4,598	0	10,020	10,752	543,350
2035	5,422	7,358	0	12,780	10,739	541,309
2036	5,437	6,681	0	12,118	10,705	539,896
2037	5,390	0	0	5,390	10,744	545,250
2038	5,390	0	0	5,390	10,851	550,711
2039	5,390	0	0	5,390	10,960	556,282
2040	5,404	0	0	5,404	11,072	561,949
2041	5,390	0	0	5,390	11,185	567,744
2042	5,390	0	0	5,390	11,301	573,655
2043	5,390	0	0	5,390	11,419	579,685
2044	5,404	0	0	5,404	11,540	585,820
2045	5,390	0	0	5,390	11,663	592,093
2046	5,390	0	0	5,390	11,788	598,491
2047	5,390	0	0	5,390	11,916	605,017
2048	5,404	0	0	5,404	12,046	611,659
2049	5,390	0	0	5,390	12,179	618,448
2050	5,390	0	0	5,390	12,315	625,373
2051	5,390	0	0	5,390	12,454	632,437
2052	5,404	0	0	5,404	12,595	639,627
2053	5,390	0	0	5,390	12,739	646,976
2054	5,390	0	0	5,390	12,886	654,472
2055	5,390	0	0	5,390	13,036	662,117
2056	5,404	0	0	5,404	13,188	669,902
2057	5,390	0	0	5,390	13,344	677,856
2058	5,390	0	0	5,390	13,503	685,969
2059	5,390	0	0	5,390	13,665	694,244
2060	5,404	0	0	5,404	13,831	702,671
2061	5,390	0	0	5,390	14,000	711,281
2062	5,390	0	0	5,390	14,172	720,062
2063	5,390	0	0	5,390	14,347	729,020
2064	5,404	0	0	5,404	14,526	738,142
2065	5,390	0	0	5,390	14,709	747,461
2066	5,390	0	0	5,390	14,895	756,966
2067	28,461	0	408	28,869	14,851	742,948
2068	64,677	0	1,319	65,996	14,199	691,151
2069	118,071	0	1,629	119,700	12,626	584,077
2070	89,757	0	997	90,754	10,774	504,097
2071	75,541	0	680	76,221	9,320	437,196
2072	50,584	0	265	50,849	8,235	394,582
2073	4,857	0	27,260	32,117	7,570	370,036
2074	93	0	20,164	20,257	7,198	356,977

Column A - Annual Expenses - License Termination Cost - Reflects the License Termination Plan cost portion of the Decommissioning Cost Estimate (DCE) at a 0% escalation rate. The 2014 costs represent the sum of the 2013 and 2014 costs from the DCE because no costs were paid from the trust funds in 2013. License Termination costs in the amount of \$11,522,999 were incurred in 2013, but not disbursed from the fund. The remaining portion of the 2013 estimated costs from the DCE are expected to be incurred in 2014.

Column B - Annual Expenses - Spent Fuel Cost - Reflects the Spent Fuel cost portion of the DCE at a 0% escalation rate. The 2014 costs represent the sum of the 2013 and 2014 costs from the DCE because no costs were paid from the trust funds in 2013. Spent Fuel costs in the amount of \$1,859,740 were incurred in 2013, but not disbursed from the fund. The remaining portion of the 2013 estimated costs are expected to be incurred in 2014. The 2014, 2015 and 2016 costs include independent spent fuel storage installation (ISFSI) capital costs for all licensees, except Duke Energy Florida, Inc. (DEF), who will fund its portion of ISFSI capital costs as described in its, "Update to Irradiated Fuel Management Program Pursuant to 10 CFR 50.54(bb)," (ADAMS Accession No. ML13340A008).

Column C - Annual Expenses - Site Restoration Cost - Reflects the Site Restoration cost portion of the DCE at a 0% escalation rate.

Column D - Annual Expenses - Total Cost - Reflects the sum of the License Termination, Spent Fuel and Site Restoration costs.

Column E - Projected Earnings - Reflects earnings on funds remaining in the trust. Although an anticipated 1.65% real rate of return was used in the financial analysis provided in the, "Post Shutdown Decommissioning Activities Report," (ADAMS Accession No. ML13340A009), 10 CFR 50.82(a)(8)(vi) permits the use of a real rate of return of up to 2% in financial analyses used to determine financial assurance and is therefore used in this financial analysis. The earnings are calculated on the previous year's end-of-year fund balance (Column F) less 50% of the given year's annual expenses.

Column F - End-of-year Fund Balances - Reflects the end-of year fund balance after all projected earnings are added and projected expenditures are deducted. The 2013 end-of-year fund balance includes \$6,760,841 in funds held by the City of Tallahassee on behalf of Duke Energy Florida.