



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

Docket 50-302
Operating License No. DPR-72

10 CFR 140.8
10 CFR 140.11

February 25, 2014
3F0214-02

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

Subject: Crystal River Unit 3 – Exemption Request for 10 CFR 140.11 Regarding Participation in the Secondary Retrospective Rating Pool for Deferred Premium Charges

Reference: 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)

Dear Sir:

In accordance with the provisions of 10 CFR 140.8, Duke Energy Florida, Inc. (DEF) hereby provides an exemption request for 10 CFR 140.11(a)(4) to allow Crystal River Unit 3 (CR-3) to withdraw from participation in the secondary retrospective rating pool for deferred premium charges.

In the above reference, 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. Accordingly, pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 license for CR-3 no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel. CR-3 poses little risk to the public health and safety since all fuel is stored in spent fuel pools and the most recently irradiated fuel was last critical on September 26, 2009.

An attachment to this letter contains the justification for the exemption in accordance with the standards of 10 CFR 140.8 and an environmental considerations evaluation.

There are no new regulatory commitments made within this submittal.

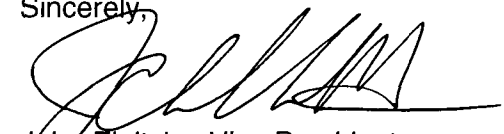
DEF respectfully requests that this exemption be granted as soon as reasonably possible to relieve this potential financial obligation.

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

ADD
NRC

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 25, 2014.

Sincerely,



John Elnitsky, Vice President
Project Management and Construction

JE/scp

Attachment: Description of Proposed Exemption Request, Justification for the Request, and
Environmental Evaluation

xc: NRR Project Manager
Regional Administrator, Region I
State Contact

DUKE ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

**EXEMPTION REQUEST FOR 10 CFR 140.11 REGARDING
PARTICIPATION IN THE SECONDARY RETROSPECTIVE
RATING POOL FOR DEFERRED PREMIUM CHARGES**

ATTACHMENT

**DESCRIPTION OF PROPOSED EXEMPTION REQUEST,
JUSTIFICATION FOR THE REQUEST, AND ENVIRONMENTAL
EVALUATION**

DESCRIPTION OF PROPOSED EXEMPTION REQUEST, JUSTIFICATION FOR THE REQUEST, AND ENVIRONMENTAL EVALUATION

1.0 Description of Proposed Exemption Request

Pursuant to 10 CFR 140.8, Duke Energy Florida Inc., (DEF) requests an exemption from the requirements of 10 CFR 140.11(a)(4) to allow Crystal River Unit 3 (CR-3) to withdraw from participation in the secondary retrospective rating pool for deferred premium charges.

2.0 Background

CR-3 has been shutdown since September 26, 2009, when the plant entered the Cycle 16 refueling outage. In the process of creating a construction opening for replacement of steam generators during that outage, a delamination of the concrete shell of the containment was discovered. The construction opening and adjacent concrete shell of the containment was repaired during 2010 and 2011. During tensioning of the containment prestressing tendons following the concrete repair, delaminations occurred in two other sections of the containment shell. In consideration of performing a second repair of the containment shell, all fuel was removed from the reactor vessel and placed in storage in the Spent Fuel Pools (SFPs) as of May 28, 2011.

On February 5, 2013, DEF announced that CR-3 would be retired. DEF notified the NRC on February 20, 2013 of the permanent cessation of operation and that CR-3 had removed all fuel from the reactor (Reference 5.1). By letter dated March 13, 2013, the NRC acknowledged CR-3's certification of permanent cessation of power operation and permanent removal of fuel from the reactor vessel (Reference 5.2). Accordingly, 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.

The CR-3 Final Safety Analysis Report (FSAR) has been updated since the cessation of operation to revise the Chapter 14 Safety Analysis section. The only accident that remains credible is the Fuel Handling Accident (FHA). The updated FHA analysis is based on conditions at the end of September 2013, four years following the last reactor operation. The FHA analysis demonstrates that the only significant radionuclide released is Krypton-85 and the exclusion area boundary (EAB) dose is conservatively estimated to be 5.9E-02 millirem.

A radioactive waste handling event has been added to FSAR Chapter 11, Radioactive Waste & Radiation Protection, to bound the possible radioactive waste handling events during decommissioning. The event postulates a release from the drop and rupture of a transport cask containing used primary system resin during cask handling immediately outside the plant. Although an airborne release is not expected to occur due to the low flammability and reactivity of the spent resin, a release is nevertheless postulated. Using very conservative assumptions the dose at the EAB is calculated to be 40 millirem.

All nuclear fuel is currently stored in the CR-3 Spent Fuel Pools (SFPs). A calculation was performed to evaluate the heat up of the fuel with all water drained from the SFPs. The calculation determined that the temperature of the fuel cladding will remain below 565°C, considered to be the threshold for the onset of cladding swelling which could lead to cladding breach. The peak cladding temperature will also remain well below the threshold for the onset of cladding oxidation leading to a zirconium fire.

More detailed descriptions of the FHA, Radioactive Waste Event, and Air Cooled Heatup Calculations are contained in Reference 5.3.

3.0 Justification for the Request

The requested exemption is to allow CR-3 to withdraw from participation in the secondary retrospective rating pool for deferred premium charges.

The dose and heatup calculations briefly described above demonstrate that CR-3 cannot cause more than minimal offsite consequences even considering extreme events. At this time and in the future, CR-3 is not and will not be likely to create offsite consequences sufficient to cause operating plants to pay deferred premiums for offsite liability claims. Therefore, DEF should not be required to continue to be at risk of paying deferred premiums for events at operating units.

The specific conditions for exemptions from Part 140 requirements are set forth in 10 CFR 140.8. The conditions for granting this exemption are that it is authorized by law and is otherwise in the public interest.

An exemption to allow CR-3 to withdraw from participation in the secondary retrospective rating pool for deferred premium charges is authorized by law as evidenced by NRC proposed rulemaking in SECY-00-0145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," (Reference 5.4.) and policy recommendations in SECY-01-0100, "Policy Issues Related to Safeguards, Insurance, and Emergency Preparedness Regulations at Decommissioning Nuclear Power Plants Storing Fuel in Spent Fuel Pools." (Reference 5.5) Additionally, exemptions from this requirement have been granted to other decommissioning nuclear power plants as detailed in Reference 5.6 which reaffirms the validity of similar exemptions following the terrorist attacks of September 11, 2001.

This exemption is in the public interest since it reduces outstanding financial risk of up to \$18.963 million per year and \$121.255 million total to rate payers of the utility.

4.0 Environmental Evaluation

This exemption request for CR-3 is exempt from environmental review because it falls within the categorical exclusion of 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," paragraph (c)(10)(i). This application requests approval to withdraw from participation in the secondary retrospective rating pool for deferred premium charges for CR-3. Additionally, the proposed exemption request does not involve any change that would directly affect the operation of the facility in any substantial way. The proposed exemption request does not involve an increase in the amounts or change the types, of any radiological effluents that may be allowed to be released offsite, and do not involve any increase in the amounts or change in the types of any non-radiological effluents that may be released offsite. Further, no increase in the individual or cumulative occupational radiation exposure is involved.

5.0 References

- 5.1 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)
- 5.2 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)
- 5.3 CR-3 to NRC letter, "Crystal River Unit 3 – License Amendment Request #315, Revision 0, Permanently Defueled Emergency Plan and Emergency Action Level Scheme, and Request for Exemption to Certain Radiological Emergency Response Plan Requirements Defined by 10 CFR 50," dated September 26, 2013. (ADAMS Accession No. ML13274A584)
- 5.4 SECY-00-0145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," dated June 28, 2000.
- 5.5 SECY-01-0100, "Policy Issues Related to Safeguards, Insurance, and Emergency Preparedness Regulations at Decommissioning Nuclear Power Plants Storing Fuel in Spent Fuel Pools (WITS 200000126)," dated June 4, 2001.
- 5.6 Memorandum from William D. Travers (NRC) to NRC Commissioners, "Status of Regulatory Exemptions for Decommissioning Plants (WITS 200100085, WITS 199900133, WITS 199900072)," dated August 16, 2002.