FPL

March 3, 2003
L-2003-057

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, D.C. 20555

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Revision to Proposed License Amendments
Reduction of Decay Time for Core Offload and
Revision of Technical Specification 3/4.9.3

By letter L-2002-051 dated October 21, 2002, Florida Power and Light Company (FPL) submitted a request to change Appendix A of Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4 to: (1) reduce the minimum time required for reactor subcriticality prior to removing irradiated fuel from the reactor vessel from 100 hours to 72 hours, and (2) relocate this decay time requirement from the Turkey Point Units 3 and 4 Technical Specifications (TS) to the TS Bases document.

FPL withdraws the request to delete Technical Specification 3/4.9.3, "Refueling Operations, Decay Time," in its entirety. FPL is requesting to revise the Technical Specification 3/4.9.3, "Refueling Operations, Decay Time," to reflect a reduction in the minimum time required for reactor subcriticality prior to removing irradiated fuel from the reactor vessel from 100 hours to 72 hours.

As stated in L-2002-051, the proposed changes are based on reanalysis of the radiological consequences of a limiting design basis Fuel Handling Accident (FHA) using a 72 hour decay time, supported by a reanalysis of the spent fuel storage pool thermal hydraulic conditions with a higher average fuel assembly decay heat output. Attachment 1 to this letter provides the proposed marked up TS page. The proposed marked up TS Bases page is also included in the attachment for information only. Attachment 2 provides a clean copy of the proposed revised TS page. A clean copy of the revised TS Bases page is also included in that enclosure for information only. Attachments 1 and 2 replace Enclosures 4 and 5 to L-2002-151 entirely.

FPL has determined that the requested change provided herein does not change the conclusions reached in the original no significant hazards consideration determination provided in FPL letter L-2002-151.

In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the State Designee for the State of Florida.

Should there be any questions, please contact us.

Very truly yours,

William Jefferson, Jr.

Attachments

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
Florida Department of Health

A001

STATE OF FLORIDA)
)ss.
COUNTY OF MIAMI-DADE)

William Jefferson, Jr. being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Plant, of Florida Power and Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

William Jefferson, Jr.

Subscribed and sworn to before me this

__3rd__day of _March , 2003.

_____Olga Hanek_____
Name of Notary Public (Type or Print)

Olga Hanek

OLGA HANEK
MY COMMISSION # CC 926970
EXPIRES: June 18, 2004
Bonded Thru Notary Public Underwriters

William Jefferson, Jr. is personally known to me.

ATTACHMENT 1

PROPOSED MARK-UP OF AFFECTED TECHNICAL SPECIFICATION AND BASES PAGES

TECHNICAL SPECIFICATION PAGE 3/ 4 9-3

BASES PAGE B 3/ 4 9-1 (FOR INFORMATION ONLY)

3/4.9.3 DECAY TIME

LIMITING CONDITION FOR OPERATION

3.9.3 The reactor shall be subcritical for at least ~~100~~ **72** hours.

APPLICABILITY: During movement of irradiated fuel in the reactor vessel.

ACTION:

With the reactor subcritical for less than ~~100~~ **72** hours, suspend all operations involving movement of irradiated fuel in the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.3 The reactor shall be determined to have been subcritical for at least ~~100~~ **72** hours by verification of the date and time of subcriticality prior to movement of irradiated fuel in the reactor vessel.

3/4.9 REFUELING OPERATIONS
BASES

3/4.9.1 BORON CONCENTRATION

The limitations on reactivity conditions during REFUELING ensure that: (1) the reactor will remain subcritical during CORE ALTERATIONS, and (2) a uniform boron concentration is maintained for reactivity control in the water volume having direct access to the reactor vessel. These limitations are consistent with the initial conditions assumed for the boron dilution incident in the safety analyses. With the required valves closed during refueling operations the possibility of uncontrolled boron dilution of the filled portion of the RCS is precluded. This action prevents flow to the RCS of unborated water by closing flow paths from sources of unborated water. The boration rate requirement of 16 gpm of 3.0 wt% (5245 ppm) boron or equivalent ensures the capability to restore the SHUTDOWN MARGIN with one OPERABLE charging pump.

3/4.9.2 INSTRUMENTATION

The OPERABILITY of the Source Range Neutron Flux Monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core. There are four source range neutron flux channels, two primary and two backup. All four channels have visual and alarm indication in the control room and interface with the containment evacuation alarm system. The primary source range neutron flux channels can also generate reactor trip signals and provide audible indication of the count rate in the control room and containment. At least one primary source range neutron flux channel to provide the required audible indication, in addition to its other functions, and one of the three remaining source range channels shall be OPERABLE to satisfy the LCO.

3/4.9.3 DECAY TIME

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel assemblies in the reactor vessel ensures that sufficient time has elapsed to allow the radioactive decay of short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses, and ensures that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the values specified in 10 CFR 50.67 and RG 1.183.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

This TS is applicable during movement of recently irradiated fuel assemblies within containment. Recently irradiated fuel is defined as fuel that has occupied part of a critical reactor core within the previous 72 hours. However, the administrative controls as well as the inherent delay associated with completing the required preparatory steps for moving fuel in the reactor vessel will ensure that the proposed 72-hour decay time will be met prior to removing irradiated fuel from the reactor vessel for a refueling outage. The FHA is a postulated event that involves damage to irradiated fuel. The in-containment FHA involves dropping a single irradiated fuel assembly, resulting in damage to a single fuel assembly. The 72-hour required decay time before moving fuel in containment ensures that sufficient time has elapsed to allow the radioactive decay of short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses, and ensures that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the values specified in 10 CFR 50.67 and RG 1.183.
~~During movement of recently irradiated fuel assemblies within containment, the most severe radiological consequences result from a fuel handling accident (FHA). The FHA is a postulated event that involves damage to irradiated fuel. The in-containment FHA involves dropping a single irradiated fuel assembly, resulting in damage to a single fuel assembly. Recently irradiated fuel is defined as fuel that has occupied part of a critical reactor core within the previous 100 hours.~~

ATTACHMENT 2

PROPOSED CLEAN COPY OF TECHNICAL SPECIFICATION AND BASES PAGES

TECHNICAL SPECIFICATION PAGE 3/ 4 9-3

BASES PAGE B 3/ 4 9-1 (FOR INFORMATION ONLY)

3/4.9.3 DECAY TIME

LIMITING CONDITION FOR OPERATION

3.9.3 The reactor shall be subcritical for at least 72 hours.

APPLICABILITY: During movement of irradiated fuel in the reactor vessel.

ACTION:

With the reactor subcritical for less than 72 hours, suspend all operations involving movement of irradiated fuel in the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.4 The reactor shall be determined to have been subcritical for at least 72 hours by verification of the date and time of subcriticality prior to movement of irradiated fuel in the reactor vessel.

3/4.9 REFUELING OPERATIONS

BASES

3/4.9.1 BORON CONCENTRATION

The limitations on reactivity conditions during REFUELING ensure that: (1) the reactor will remain subcritical during CORE ALTERATIONS, and (2) a uniform boron concentration is maintained for reactivity control in the water volume having direct access to the reactor vessel. These limitations are consistent with the initial conditions assumed for the boron dilution incident in the safety analyses. With the required valves closed during refueling operations the possibility of uncontrolled boron dilution of the filled portion of the RCS is precluded. This action prevents flow to the RCS of unborated water by closing flow paths from sources of unborated water. The boration rate requirement of 16 gpm of 3.0 wt% (5245 ppm) boron or equivalent ensures the capability to restore the SHUTDOWN MARGIN with one OPERABLE charging pump.

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3/4.9.3 DECAY TIME

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel assemblies in the reactor vessel ensures that sufficient time has elapsed to allow the radioactive decay of short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses, and ensures that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the values specified in 10 CFR 50.67 and RG 1.183.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

This TS is applicable during movement of recently irradiated fuel assemblies within containment. Recently irradiated fuel is defined as fuel that has occupied part of a critical reactor core within the previous 72 hours. However, the administrative controls as well as the inherent delay associated with completing the required preparatory steps for moving fuel in the reactor vessel will ensure that the proposed 72-hour decay time will be met prior to removing irradiated fuel from the reactor vessel for a refueling outage. The FHA is a postulated event that involves damage to irradiated fuel. The in-containment FHA involves dropping a single irradiated fuel assembly, resulting in damage to a single fuel assembly. The 72-hour required decay time before moving fuel in containment ensures that sufficient time has elapsed to allow the radioactive decay of short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses, and ensures that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the values specified in 10 CFR 50.67 and RG 1.183.