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October 21, 2010
L-2010-243
10 CFR §50.55a

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

Subject: Turkey Point Unit 3
Docket No. 50-250
Relief Request No. 8
Transfer Canal Drain Line Piping Repairs

Title 10 of the Code of Federal Regulations (10 CFR), Section 50.55a(g) requires that nuclear power facility components must meet the requirements contained in specific editions of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code or Code), Section XI, for Inservice Inspection, and Repair and Replacement Programs. Specifically, the ASME Code, Section XI, Article IWA-4000 applies to flaws requiring repair. ASME Section XI 1998 Edition through 2000 Addenda, Subsection IWA-4000, "Repair\Replacement Activities," allows the use of Code Cases.

On July 29, 2010, a non-isolable through-wall flaw was detected through wall leaks on the Turkey Point Unit 3 Transfer Canal Drain line piping. Turkey Point Unit 3 invoked Code Case N-513-2 for pipe replacement or repairs. Paragraph 2(h) of Code Case N-513-2 requires that repair or replacement be performed no later than when the predicted flaw size exceeds the acceptance criteria or the next scheduled outage, whichever occurs first.

The affected section of drain line piping is non-isolable; therefore, repair or replacement is only practical when the transfer canal is drained. Upon evaluation of the flaw, it was determined that a design modification is a prudent and appropriate corrective action. The system is in service during a refueling outage but may be taken out-of-service after completing fuel handling and decontamination activities. As such, it was considered that the intent of timely corrective action could be accomplished during the next system outage after the Unit 3 Fall 2010 refueling outage.

The system is currently in service for the Unit 3 refueling outage, which began on September 24, 2010. The transfer canal will be drained, and the drain piping will be isolated as soon as practicable after the end of the Unit 3 Fall 2010 refueling outage.

Pursuant to 10CFR 50.55a (a)(3)(i), Florida Power & Light (FPL) requests NRC approval to deviate from the requirements Paragraph 2(h) of Code Case N-513-2 to perform repairs during the next system outage after the Turkey Point Unit 3 Fall 2010 refueling outage.

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There is no alignment that would increase leakage in the affected section of pipe. Therefore, the proposed scheduling of the piping repairs after the refueling outage will not increase the health and safety risk to the public.

Per Paragraph 2(f) of Code Case N-513-2, the piping will be observed by daily walkdowns for increased leakage or new leak locations while the transfer canal is filled. In addition, the affected section of pipe will be either tagged out-of-service or, per N-513-2 Paragraph 2(e), the flaw in-service inspected on a monthly basis until repairs or restoration is completed. The permanent repair will be completed no later than December 31, 2010.

FPL requests approval of the attached relief request from the provisions of the ASME Code, Section XI, Article IWA-4000, Code Case N-513-2 Paragraph 2 (h), in that the proposed alternative to Code Case N-513-2 requirements to perform repairs after the Turkey Point Unit 3 refueling outage would result in an equivalent level of quality and safety. The basis for the acceptability of the relief request is discussed in Enclosure 1.

FPL is requesting approval of the enclosed Relief Request by October 29, 2010, which is prior to the Turkey Point Unit 3 restart.

If there are any questions regarding the information contained in this submission, please contact Mr. Robert J. Tomonto, Turkey Point Licensing Manager, at 305-246-7327.

Very truly yours,

Michael Kiley
Vice President
Turkey Point Nuclear Plant

Enclosure 1: 10 CFR 50.55a Relief Request No. 8

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Nuclear Plant
Project Manager, NRR, USNRC

Turkey Point Unit 3
Fourth Inservice Inspection Interval
Relief Request No. 8
L-2010-243 Enclosure 1

"ALTERNATIVE TO CODE CASE N-513-2 REQUIREMENTS TO PERFORM REPAIRS DURING THE NEXT SCHEDULED OUTAGE"

Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(i)

--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Component(s) Affected

Class 3 Transfer Canal Drain Line Piping at Turkey Point Nuclear Plant, Unit 3.

2. Applicable Code Edition and Addenda

The Code of Record for Turkey Point Units 3 & 4 is the 1998 Edition with 2000 Addenda of ASME Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" and Code Case N-513-2.

3. Applicable Code Requirement

ASME Section XI 1998 Edition through 2000 Addenda, Subsection IWA-4000, "Repair\Replacement Activities," allows the use of Code Cases. Turkey Point Nuclear Power Plant invoked Code Case N-513-2. Paragraph 2(h) of Code Case N-513-2 requires that repair or replacement be performed no later than when the predicted flaw size exceeds the acceptance criteria or the next scheduled outage, whichever occurs first.

4. Reason for Request

The Unit 3 Fall 2010 refueling outage was less than 60 days away at the time that the flaw was discovered and fuel movements were in progress. New fuel delivery and shuffles require the spent fuel pit and its transfer canal to be filled and operational. Therefore, the system was required to remain in service. In addition, repair parts were not readily available, and the Unit 3 repairs would also require removal of concrete and the cutting of reinforcement bars in the Unit 3 spent fuel pit mat. Accordingly, the pipe repairs cannot be implemented until after the current (Fall 2010) scheduled refueling outage.

5. Proposed Alternative and Basis for Use

Pursuant to 10CFR 50.55a (a)(3)(i), Florida Power and Light Company (FPL) requests relief from Code Case N-513-2 requiring pipe replacement or repair of the through-wall leaks on the Transfer Canal drain piping during the next scheduled outage, which began September 24, 2010. The piping is classified as ASME Class 3 with maximum operating conditions less than 200°F and 275 psig so N-513-2 is the applicable code case.

The flaws are pinholes located along the side of a 4", Type 304 stainless steel horizontal pipe and the heat-affected zone of a pipe weld. The apparent cause has been attributed to transgranular stress corrosion cracking initiated from the outside surface. The flaw is classified as planar in axial and circumferential directions with lengths below a threshold requiring immediate repair. With the transfer canal filled, leakage is on the order of one drop every several minutes with no apparent change during Fall 2010 refueling outage activities. As pinholes with low internal pressure and temperature, particularly when the canal is drained, continued growth is not expected to be significant.

The affected section of drain piping is non-isolable; therefore, repair or replacement is only practical when the transfer canal is drained. It has been determined that a design modification is a prudent and appropriate corrective action. The system is in service during a refueling outage but may be taken out-of-service after completing fuel handling and decontamination activities. As such, it was considered that the intent of timely corrective action could be accomplished during the next system outage after the Fall 2010 refueling outage.

The transfer canal will be drained, and the drain piping will be isolated as soon as practicable after the end of the refueling outage. There is no alignment that would increase leakage in the affected section of pipe. Therefore, the proposed scheduling of the piping repairs after the refueling outage will not increase the health and safety risk to the public. Per Paragraph 2(f) of Code Case N-513-2, the piping will be observed by daily walkdowns for increased leakage or new leak locations while the transfer canal is filled. In addition, the affected section of pipe will be either tagged out-of-service or, per N-513-2 Paragraph 2(e), the flaw in-service inspected on a monthly basis until repairs or restoration is completed.

6. Duration for the Proposed Alternative

Florida Power & Light is scheduled to restore the transfer drain line to conformance with design requirements no later than 12/31/10, which is approximately five (5) months after the time of discovery.