



FPL

JUL 02 2004

L-2004-146

10 CFR 50.55a

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
Response to Request for Additional Information Regarding Fourth Interval
Inservice Test Relief Requests Dated June 4, 2004

By letter L-2003-316, dated January 6, 2004, Florida Power and Light (FPL) Company submitted to NRC for review and approval the Turkey Point Fourth 10-year Interval Inservice Testing (IST) Relief Requests. These Relief Requests were discussed with the Staff on March 30, 2004. Subsequently, FPL by letter L-2004-084, dated May 3, 2004, requested the withdrawal of IST Relief Requests PR-02, PR-05, PR-06, VR-01, VR-02, and VR-03. On June 4, 2004, the Staff requested additional information to be provided for IST Relief Requests PR-03, and PR-04.

The purpose of this letter is to respond to the request for additional information regarding the Fourth 10-year Interval IST Relief Requests PR-03, and PR-04.

At this time, FPL requests the withdrawal of IST Relief Request PR-03, Containment Spray Pump Comprehensive Pump Test. Furthermore, FPL resubmits in Attachment A, the IST Relief Request PR-04, Residual Heat Removal Discharge and Suction Pressure Gauge Range Requirements, to apply only to the quarterly and not to Comprehensive pump test.

If you have any questions please contact Walter Parker at (305) 246-6632.

Very truly yours,

Terry G. Jones
Vice President
Turkey Point Nuclear Plant

SM

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

Attachment A
L-2004-146

10 CFR50.55a
Relief Request
PR-04
RHR Discharge and Suction Pressure
Gauge Range Requirements

10 CFR 50.55a Relief Request PR-04

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

Alternative Provides Acceptable Level of Quality and Safety

1. ASME Code Components Affected

3P210A	3A Residual Heat Removal Pump
3P210B	3B Residual Heat Removal Pump
4P210A	4A Residual Heat Removal Pump
4P210B	4B Residual Heat Removal Pump

2. Applicable Code Edition and Addenda

ASME OM Code 1998 Edition through 2000 Addenda

3. Applicable Code Requirement

ISTB-3510(b)(1) – The full-scale range of each analog instrument shall be not greater than three times the reference value.

4. Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (a)(3), relief is requested from the requirement of ASME OM Code ISTB-3510(b)(1). The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

The installed suction and discharge pressure gauges of the residual heat removal pumps are sized to accommodate the pressure range of 4 to 600 psig expected under standby, cold shutdown, and emergency operation modes. The instrument range is 0 to 600 psig. As a result, the instrument range exceeds the requirement of ISTB-3510(b)(1) since during the quarterly inservice tests, the suction/discharge pressures may be considerably less than the range requirements of ISTB-3510(b)(1).

5. Proposed Alternative and Basis for Use

As an alternative, the use of existing instrumentation, without meeting the 1/3 range requirements of the Code but which exceed the Code required accuracies will be applied to group A or B quarterly inservice tests of the RHR pumps. This alternative will adequately provide for monitoring pump health conditions for the following reasons:

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These specific gauges are calibrated to an accuracy of $\pm 0.25\%$ and are of the "twice around" type such that they may accurately indicate pressure over all modes of Residual Heat Removal operations (Shutdown Cooling and Emergency Core Cooling). The gauge range on the first revolution is 0 to 300 psig and 300 to 600 psig on the second revolution. See Attachment 2, RHR Suction and Discharge Pressure Gauge.

Suction Pressure

Suction pressure measurements are recorded and used to derive the pump differential pressure through calculation. The accuracy of the suction pressure measurement normally has little or no effect on the results of this calculation since, generally, the pump discharge pressure exceeds the suction pressure by 6 to 7 times the reference value. When determining pump differential pressure (DP), typically the RHR pump DP is approximately 100 psi (discharge pressure approximately 120 psig while suction pressure is approximately 20 psig). The maximum effect of suction pressure inaccuracies is $0.25\% \times 600$ psig, or 1.5 psig. The Code required gauge range for this suction pressure reference value (20 psig) would be 0 to 60 psig. The Code accuracy requirement of 2% would cause a maximum inaccuracy of $2.0\% \times 60$ psig, or 1.2 psig. See Attachment 1.

Discharge Pressure

Discharge pressure measurements are also recorded and used to derive the pump differential pressure through calculation. When determining pump differential pressure (DP), typically the RHR pump DP is approximately 100 psig (discharge pressure approximately 120 psig while suction pressure is approximately 20 psig). The maximum effect of the discharge pressure inaccuracies is $0.25\% \times 600$ psig, or 1.5 psig. The Code required gauge range for this discharge pressure reference value (120 psig) would be 0 to 360 psig. The Code accuracy requirement of 2% would cause a maximum inaccuracy of $2.0\% \times 360$ psig, or 7.2 psig. See Attachment 1.

Combination

Based on the inaccuracies of the suction and discharge pressure gauges (± 1.5 psig), the largest possible error in the differential pressure calculation is ± 3 psig. Use of gauges with Code required ranges, and applying the Code accuracy requirements, the largest possible inaccuracies would be 1.2 psig + 7.2 psig, or 8.4 psig. See Attachment 1.

Therefore, the use of permanently installed pressure instruments which exceed the Code required accuracies but do not meet the Code range requirements would reduce the overall instrument inaccuracies with respect to differential pressure for the quarterly test from 8.4 psig to 3.0 psig. This relief request does not apply to comprehensive pump testing. Based on the above discussion, this alternative provides an acceptable level of quality and safety.

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6. Duration of Proposed Alternative

This proposed alternative will be utilized for the entire 4th 120 month interval.

7. Precedents

A similar relief request was previously approved for 3rd Ten Year Interval at Turkey Point as PR-03.

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**Attachment 1
Gauge Ranges and Accuracy Comparison**

The following tables present a comparison between the permanently installed pressure gauges on the RHR pumps at Turkey Point along with the Code required ranges and accuracies for both a Group A or B tests.

Suction Pressure

	Gauge Range	Accuracy	Suction Pressure Inaccuracy
Turkey Point	0 – 600 psig	0.25 %	1.5 psig
Group A or B Test	0 – 60 psig	2.0 %	1.2 psig

Discharge Pressure

	Gauge Range	Accuracy	Discharge Pressure Inaccuracy
Turkey Point	0 – 600 psig	0.25 %	1.5 psig
Group A or B Test	0 – 360 psig	2.0 %	7.2 psig

Combination – Differential Pressure

	Suction Gauge Range	Suction Pressure Accuracy	Discharge Gauge Range	Discharge Pressure Accuracy	Total Inaccuracy
Turkey Point	0 – 600 psig	0.25 % (1.5 psig)	0 – 600 psig	0.25 % (1.5 psig)	3.0 psig
Group A or B Test	0 – 60 psig	2.0 % (1.2 psig)	0 – 360 psig	2.0 % (7.2 psig)	8.4 psig

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(Continued)

Attachment 2

RHR Suction and Discharge Pressure Gauge

