



SEP 05 2001

L-2001-203
10 CFR 50.55 (a)

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 Replacement of Required Volumetric Examinations of Reactor Pressure Vessel Nozzle Inner Radii Inspections with Visual Examinations- Relief Request No. 25

By letter L-2001-110, dated June 11, 2001, Florida Power & Light (FPL) submitted Relief Request No. 25 regarding the Turkey Point Reactor Pressure Vessel Nozzle Inner Radii Inspection Program. By letter dated August 2, 2001, the U.S. Nuclear Regulatory Commission Staff requested additional information regarding the above referenced FPL submittal. The NRC Request for Additional Information also stated that FPL agreed that a response would be provided "within 30 days of receipt of this letter." Based on follow-up discussion with the NRC Turkey Point Project Manager, it was agreed that submittal of this response by September 14, 2001 would be acceptable.

The response to the request for additional information is provided in Attachment 1. Attachment 2 provides the revised submittal.

If you have any questions on this request, please contact Steve Franzone at (305) 246-6228.

Very truly yours,

A handwritten signature in black ink, appearing to read 'John P. McElwain', is written over the typed name.

John P. McElwain
Vice President
Turkey Point Plant

DRL

Attachments

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

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Attachment 1**Relief Request No. 25:****NRC RAI Request (1)**

Provide the unique identification for each inner radius, and supply the coverage or percentage of surface area, that will be visually examined for flaws identified in Table IWB-2500-1, Category B-D, Item B3.100.

FPL Response:

The following table identifies the inner radii examinations for which relief is requested:

Unit 3	Unit 4
3-DI-A-IRS - Inlet Nozzle Inner Radius	4-DI-A-IRS - Inlet Nozzle Inner Radius
3-DO-A-IRS - Outlet Nozzle Inner Radius	4-DO-A-IRS - Outlet Nozzle Inner Radius
3-DI-B-IRS - Inlet Nozzle Inner Radius	4-DI-B-IRS - Inlet Nozzle Inner Radius
3-DO-B-IRS - Outlet Nozzle Inner Radius	4-DO-B-IRS - Outlet Nozzle Inner Radius
3-DI-C-IRS - Inlet Nozzle Inner Radius	4-DI-C-IRS - Inlet Nozzle Inner Radius
3-DO-C-IRS - Outlet Nozzle Inner Radius	4-DO-C-IRS - Outlet Nozzle Inner Radius

One hundred percent coverage will be achieved when the core barrel is pulled.

NRC RAI Request (2)

Describe the resolution capabilities of the equipment (i.e., video camera) used to perform the visual inspection. Include a discussion on any demonstration of these capabilities.

FPL Response

As required by ASME Section XI, remote VT-1 examinations require the resolution capability to be at least equivalent to that attainable by direct visual examination. FPL requires that remote VT-1 examinations performed of Reactor Vessel components demonstrate their equivalency under water. This demonstration is recorded at the beginning and end of each tape or examination sequence.

Attachment 1

NRC RAI Request (3)

Identify the acceptance criteria that will be used for the examination (i.e., Table IWB-3510-3, 1998 Edition of the ASME Code.

FPL Response

FPL will utilize the acceptance criteria of Table IWB-3510-3 of the 1998 Edition of Section XI for flaws discovered during the VT-1 examination of inner radii.

Attachment 2

Relief Request No. 25
Alternative Examination for Reactor Pressure Vessel Inside Radius

I. COMPONENT IDENTIFICATION:

ASME Section XI, Class 1, Examination category B-D, Item B3.100 Nozzle Inside Radius Section in Reactor Pressure Vessels examined at Turkey Point Units 3 and 4.

II. EXAMINATION REQUIREMENTS:

Rules for Inservice Inspection of Nuclear Power Plant Components, Section XI, 1989 Edition, Examination Category B-D Full Penetration Welds of Nozzles in Vessels, Code Item B3.100, Figure IWB-2500-7(a) through (d).

The following table identifies the inner radii examinations for which relief is requested.

Unit 3	Unit 4
3-DI-A-IRS - Inlet Nozzle Inner Radius	4-DI-A-IRS - Inlet Nozzle Inner Radius
3-DO-A-IRS - Outlet Nozzle Inner Radius	4-DO-A-IRS - Outlet Nozzle Inner Radius
3-DI-B-IRS - Inlet Nozzle Inner Radius	4-DI-B-IRS - Inlet Nozzle Inner Radius
3-DO-B-IRS - Outlet Nozzle Inner Radius	4-DO-B-IRS - Outlet Nozzle Inner Radius
3-DI-C-IRS - Inlet Nozzle Inner Radius	4-DI-C-IRS - Inlet Nozzle Inner Radius
3-DO-C-IRS - Outlet Nozzle Inner Radius	4-DO-C-IRS - Outlet Nozzle Inner Radius

One hundred percent coverage will be achieved when the core barrel is pulled.

III. RELIEF REQUESTED:

Pursuant to 10 CFR 50.55a (a)(3)(i), relief is requested to implement Code Case N-648 as an alternative to the Ultrasonic (UT) examination requirement of ASME Section XI Table IWB-2500-1, Examination Category B-D, Item B3.100. FPL proposes to implement Code Case N-648 i.e., perform a VT-1, Visual Examination, as an alternative method for the inspection of

Attachment 2

Reactor Pressure Vessel Inside Radius. These examinations will be performed during the third inspection interval. This relief request is applicable to Turkey Point Units 3 and 4.

IV. BASIS FOR RELIEF:

A "White Paper – ISI-99-26" was submitted by the ASME, Boiler & Pressure Vessel Code, Subcommittee In-service Inspection, - Section XI for the elimination of Reactor Pressure Vessel Inside Radius examinations. The WOG (Westinghouse Owners Group) developed this study and presented the results in a meeting on May 9, 2000 to the NRC staff. According to the NRC's summary of the meeting, the staff indicated that an Ultrasonic (UT) examination could be replaced by VT-1 visual examination for the proposed Reactor Pressure Vessel nozzle inspections on the basis that surveillance is maintained and VT-1 visual examination is performed. This examination is superior to the current requirement of VT-3.

The requirement for the Ultrasonic (UT) examination of the nozzle inner radius regions has been in effect for inspections for many years. There have been no inspection findings in any of the reactor vessel nozzles. The original requirement was included because of a cracking event in a non-nuclear vessel, which occurred near the time when the ASME Section XI inspection requirements were being established. As per the "White Paper-ISI-99-26," the failure probability is extremely low under the plant operating conditions and elimination of the RPV vessel nozzle inner radius inspection would not be expected to result in a significant increase in risk.

The original requirement, as instituted in the early 1970's, was a good idea, since there was only limited experience in operating nuclear plants. Today, after some 25 years of operation (over 1000 reactor years), no cracking incidents of any kind in these nozzles inner radius regions have been found whatsoever. It is advisable, therefore, to eliminate this requirement since it is no longer necessary.

The implementation of this relief is also expected to reduce on-vessel examination time by as much as 6 hours, which translates to significant cost savings and reduced personnel radiation exposure.

V. ALTERNATIVE EXAMINATIONS:

1. In lieu of the Ultrasonic (UT) examination requirements of ASME Section XI Table IWB-2500-1, Examination Category B-D, Item no. B3.100, a VT-1 visual examination shall be performed per Code Case N-648. Code Case N-648 contains a typographical error in that the acceptance criteria identified is [Table IWB-3513-3 of the 1998 Edition of Section XI], which does not exist; the correct reference should be given as [Table IWB-3510-3 of the 1998

Attachment 2

Edition of Section XI].

2. Periodic System Pressure Tests will be performed per Category B-P, Table IWB-2500-1

VI. IMPLEMENTATION SCHEDULE:

Third Inservice Inspection Interval

VII. REFERENCES:

1. Nuclear Regulatory Commission Federal Register part II, Vol. 64, No. 183, Wednesday September 22, 1999, 10 CFR part 50 Industry Codes and Standards; Amended Requirements; Final Rule.
2. ASME Section XI, 1989 Edition, No Addenda, "Rules For Inservice Inspections of Nuclear Power Plant Components."
3. ASME Section XI, 1995 Edition, 1996 Addenda, "Rules For Inservice Inspections of Nuclear Power Plant Components."
4. White Paper – ISI-99-26 "Technical Basis for Elimination of Reactor Vessel Nozzle Inner Radius Inspections."
5. Code Case N-648, "Alternative Requirements for Inner Radius Examinations of Class 1 Reactor Vessel Nozzles Section XI, Division 1."