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ACCESSION NBR:8510180081 DOC.DATE: 85/10/11 NOTARIZED: NO DOCKET #
FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
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THOMPSON,H.L. Division of Licensing

SUBJECT: Withdraws part of 840402 application for amends to Licenses DPR-31 & DPR-41,dealing w/operability/surveillance requirements referencing inservice test programs,Revised pages encl.

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NOTES: 05000250
OL:07/19/72
05000251
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FLORIDA POWER & LIGHT COMPANY

OCT 1 1 1985

L-85-346

Office of Nuclear Reactor Regulation
Attention: Mr. Hugh L. Thompson, Jr., Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Thompson:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Proposed License Amendment
Inservice Inspection and
Inservice Test Program

On April 2, 1984, FPL submitted a request to amend Appendix A of Facility Operating License, DPR 31 and DPR 41 to reflect revised Inservice Inspection (ISI) and Inservice Test (IST) programs, in accordance with 10 CFR 50.55 a(g)(5)(ii) which states "If a revised inservice inspection program for a facility conflicts with the technical specification for the facility, the licensee shall apply to the Commission for an amendment of the technical specifications to conform the technical specification to the revised program." The ISI Second 10-Year Summary Program and revisions to the IST Program for Pumps and Valves for the Turkey Point Plant were submitted to the NRC on March 30, 1984, and are now under NRC review. As stated in our April 2, 1984 letter, it is FPL's intent to modify the Technical Specifications for the Turkey Point Plant such that future license amendments will not be required when revisions to the ASME Boiler and Pressure Vessel Code are made.

In order to expedite the ISI portion of the amendment, we wish to withdraw that part of the April 2, 1984 submittal dealing with operability/surveillance requirements referencing the IST Program. FPL is reviewing those changes and will resubmit them in a separate amendment request. The proposed changes remaining are described below and shown on the accompanying technical specification pages, which supersede those in our April 2, 1984 request. No changes were made to their content other than to update them to reflect license amendments issued subsequent to our initial submittal and to comply with the revised ISI Second 10-Year Program. Interim relief from selected ASME Code Inservice Inspection and Testing requirements was granted by the NRC in a letter dated February 4, 1985. We expect to obtain final ISI program approval prior to issuance of the requested amendments.

Pages 4.0-1,4.1-1

Specification 4.0.3 is provided to add the Inservice Inspection requirements of the ASME Code. Editorial changes are made to page 4.1-1 to facilitate this change.

Page 4.2-1 through 4.2-6; Table 4.2-1 is deleted

Specification 4.2, Reactor Coolant System Inservice Inspection, is revised to remove requirements which are addressed by proposed Specification 4.0.3.

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Accordingly, Table 4.2.1 is deleted in its entirety. Pages 4.2-3 through 4.2-6, which describe the requirements for steam generator inspections, have been retyped and renumbered as 4.2-2 through 4.2-6. No changes were made to their content.

Page 4.4-2

The specification referenced in the acceptance criteria was corrected.

Page 4.4-3

Specification 4.4.4 is revised to reference Specification 4.0.3 which specifies requirements for testing of the residual heat removal system.

Pages B4.0-1, B4.2-1; Pages B4.2-3 through B4.2-14 are deleted

The bases for Specification 4.0 and 4.2 are revised to reflect the above changes.

Pages ii, iv, v, are provided with appropriate changes to the Table of Contents to be consistent with the above changes.

If you have any questions, please call us.

Very truly yours,

For J.W. Williams, Jr.
Group Vice President
Nuclear Energy

Attachments

JWW/TCG:mls

cc: Dr. J. Nelson Grace
Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
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Harold F. Reis, Esquire

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LIST OF TABLES

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4.0 SURVEILLANCE REQUIREMENTS

4.0.1 Specified intervals may be adjusted plus or minus 25% to accommodate normal test schedules.

4.0.2 When the reactor is in a shutdown condition, some of the surveillance requirements discussed in this section are not required to be satisfied provided that the safety limits or limiting conditions for operation for the shutdown status are satisfied. When a surveillance activity is not completed because the reactor is shutdown and the surveillance is not required, the surveillance requirement shall be met prior to the time indicated in the applicable footnote.

4.0.3 Surveillance Requirements for inservice inspection of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

a) Inservice inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

b) Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection activities	Required frequencies for performing inservice inspection activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days

c) The provisions of Specification 4.0.1 are applicable to the above required frequencies for performing inservice inspection activities.

d) Performance of the above inservice inspection activities shall be in addition to other specified Surveillance Requirements.

e) Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

Amendment Nos. ____ and ____

4.1 OPERATIONAL SAFETY REVIEW

Applicability: Applies to items directly related to safety limits and limiting conditions for operation.

Objective: To specify the minimum frequency and type of surveillance to be applied to equipment and conditions.

Specification: Calibration, testing, and checking of analog channels and testing of logic channels shall be performed as specified in Table 4.1-1.

Equipment and sampling tests shall be conducted as specified in Table 4.1-2.

4.2 REACTOR COOLANT SYSTEM IN-SERVICE INSPECTION

Applicability: Applies to pre-operational and in-service structural surveillance of the reactor coolant system boundary.

Objective: To assure the continued integrity of the reactor coolant system boundary.

Specification:

4.2.1 Except as listed below, there are no additional surveillance requirements other than those required by Specification 4.0.3.

4.2.2 The inspection interval shall be 10 years.

4.2.3 Deleted

4.2.4 Deleted

4.2.5 STEAM GENERATOR INSPECTION

4.2.5.1 Steam Generator Sample Selection and Inspection - Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.2-2.

4.2.5.2 Steam Generator Tube Sample Selection and Inspection - The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.2-3. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.2.5.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.2.5.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.

b. The sample of tubes selected for each inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:

1. All nonplugged tubes that previously had detectable wall penetrations (greater than 20%), and

2. Tubes in those areas where experience has indicated potential problems.

3. A tube inspection (pursuant to Specification 4.2.5.4.8) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.

c. The tubes selected as the second and third samples in the inservice inspection may be less than a full tube inspection by concentrating (selecting at least 50% of the tubes to be inspected) the inspection on those areas of the tube sheet array and on those portions of tubes where tubes with imperfections were previously found.

The results of each sample inspection shall be classified into one of the following three categories:

Category	Inspection Results
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

NOTE: In all inspections, previously degraded tubes must exhibit significant (greater than 10%) further wall penetrations to be included in the above percentage calculations.

4.2.5.3 Inspection Frequencies - The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

a. The first inservice inspection shall be performed after six effective full power months of operation but within 24 calendar months following replacement of steam generators. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.

b. If the inservice inspection of a steam generator conducted in accordance with Table 4.2-3 requires a third sample inspection whose results fall in Category C-3, the inspection frequency shall be reduced to at least once per 20 months. The reduction in inspection frequency shall apply until a subsequent inspection demonstrates that a third sample inspection is not required.

c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.2-3 during the shutdown subsequent to any of the following conditions:

1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.1.3.g.

2. A seismic occurrence greater than the operating Basis Earthquake (OBE).

3. A loss-of-coolant accident resulting in rapid depressurization of the primary system, or

4. A main steam line or feedwater line break resulting in rapid depressurization of the affected steam generator.

4.2.5.4 Acceptance Criteria

a. As used in this Specification:

1. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing, indications below 20% of the nominal tube wall thickness, if detectable may be considered as imperfections.

2. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.

3. Degraded Tube means a tube containing imperfections greater than or equal to 20% of the nominal wall thickness caused by degradation.

4. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

5. Defect means an imperfection or such severity that it exceeds the plugging limit. A tube containing a defect is defective. Any tube which does not permit the passage of the eddy-current inspection probe shall be deemed a defective tube.

6. Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service because it may become unserviceable prior to the next inspection and is equal to 40% of the nominal tube wall thickness.

7. Unserviceable described the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of OBE, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.2.5.3.c, above.

8. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg.

9. Preservice Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing.

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.2-3.

4.2.5.5 Reports

a. Following each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission within 15 days.

b. The complete results of the steam generator tube inservice inspection shall be included in the Annual Changes, Tests and Experiment Reports for the period in which this inspection was completed. This report shall include:

   1. Number and extent of tubes inspected.

   2. Location and percent of wall-thickness penetration for each indication of an imperfection.

   3. Identification of tubes plugged.

c. Results of steam generator tube inspections which fall into Category C-3 and require prompt notification of the Commission shall be reported pursuant to Specification 6.9.2.a prior to resumption of plant operation. The written followup of this report shall provide a description of investigations conducted to determine the cause of the tube degradation and corrective measures taken to prevent recurrence.

TABLE 4.2-1 WAS DELETED IN ITS ENTIRETY

4.4.2 LOCAL PENETRATION TESTS

Test Procedure and Frequency

Local leak detection tests of the following components shall be performed at a pressure not less than 50 psig using pressure decay, soap bubble, halogen detection or equivalent methods at the frequency listed, unless otherwise noted:

1. Containment purge valves (pressure applied in connecting duct) - each refueling.

2. Personnel and Emergency Airlocks

   a. *Within 3 days of every first of a series of openings when containment integrity is required, verify that door seals have not been damaged or seated improperly by vacuum testing the volume between the door seals in accordance with approved plant procedures.

   b. At least once per 6 months, conduct an overall airlock leakage test to verify that the overall airlock leakage rate is within its limit.

3. Equipment access opening (pressure applied between gaskets) - annually and after use.

4. Fuel transfer tube flange (pressure applied between gaskets) - each refuleing.

5. Electrical penetrations (pressure applied to canister) - each refueling.

Acceptance Criteria:

Repairs and tests shall be made whenever the sum of the local leak rate tests, including the isolation valves discussed in 4.4.3, exceeds sixty percent of the total containment allowable leak rate.

4.4.3 ISOLATION VALVES

Containment isolation valves shall be tested in accordance with 10 CFR 50, Appendix J, (type C tests).

4.4.4 RESIDUAL HEAT REMOVAL SYSTEM

No additional surveillance requirements other than those required by Specification 4.0.3.

B4.0 BASES FOR SURVEILLANCE REQUIREMENTS

4.0.1 This specification provides a grace period so that intervals may be adjusted to accommodate normal test schedules.

4.0.2 This specification provides guidance for surveillance requirements when the reactor is in a shutdown condition.

4.0.3 This specification ensures that inservice inspection of ASME Code Class 1, 2, and 3 components will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. Relief from any of the above requirements has been provided in writing by the Commission and is not a part of these Technical Specifications.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout these Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Code and applicable Addenda.

B4.2 BASES FOR REACTOR COOLANT SYSTEM IN-SERVICE INSPECTION

This specification ensures that inservice inspection of ASME Code Class 1, 2, and 3 components will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. This is accomplished by referencing the inspections required by Specification 4.0.3.

MISCELLANEOUS INSPECTIONS

Steam Generator Tube Inspection

The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the RCS will be maintained. The program for inservice inspection of steam generator tubes is based on a modification of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. In service inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those parameter limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these parameter limits, localized corrosion may likely result in stress corrosion racking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the primary coolant system and the secondary coolant system (primary-to-secondary leakage = 1 gallon per minute, total). Cracks having a primary-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that primary-to-secondary leakage of 1 gallon per minute can readily be detected by radiation monitors of steam generator blowdown. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and plugged.

Wastage-type defects are unlikely with the all volatile treatment (AVT) of secondary coolant. However, even if a defect of similar type should develop in service, it will be found during scheduled inservice steam generator tube examinations. Plugging will be required of all tubes with imperfections exceeding the plugging limit which, by the definition of Specification 4.2.5.4.a is 40% of the tube nominal wall thickness. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that has penetrated 20% of the original tube wall thickness.

Whenever the results of any steam generator tubing in-service inspection fall into Category C-3, these results will be promptly reported to the Commission pursuant to Specification 6.9.2.a prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.