

# Florida Power

CORPORATION

Crystal River Unit 3

Docket No. 50-302

July 8, 1994  
3F0794-02

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

Subject: Notice of Violation  
NRC Inspection Report No. 50-302/94-11

Reference: NRC to FPC letter, 3N0694-06, dated June 3, 1994

Dear Sir:

Florida Power Corporation (FPC) provides the attached as our response to the subject Notice of Violation. Please note that an extension until July 8, 1994 for this response was agreed to by R. Schin, Region II in teleconference with R. McLaughlin, FPC on July 1, 1994.

FPC has accepted the first violation; however, we have denied the second violation on the basis that regulatory requirements were satisfied. In addition, we do not believe the method used by FPC to meet the intent of the EPRI Guidelines regarding independent review of eddy current analysis is a programmatic weakness. The performance of FPC's steam generators supports our position.

FPC is not adverse to making a change that goes beyond regulatory requirements to enhance our program, provided there is a commensurate benefit achieved by the change. Some statements in this inspection report convey an expectation that FPC will change our program consistent with standards that are beyond regulatory requirements without consideration for whether or not these changes will provide a commensurate improvement in plant safety. This is of concern to us.

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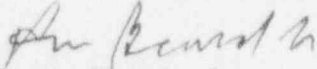
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FPC will establish a meeting date with the NRC Region II Staff to further discuss our concerns.

Sincerely,



P. M. Beard, Jr.  
Senior Vice President  
Nuclear Operations

PMB/

Attachment

xc: Regional Administrator, Region II  
NRR Project Manager  
Senior Resident Inspector

FLORIDA POWER CORPORATION  
NRC INSPECTION REPORT NO. 50-302/94-11  
REPLY TO A NOTICE OF VIOLATION

VIOLATION 50-302/94-11-01

10 CFR 50, Appendix B, Criterion V, as implemented by FSAR Section 1.7.1.5, requires that activities affecting quality shall be accomplished in accordance with instructions, procedures or drawings.

For Magnetic Particle (MT) inspection of safety related pipe welds, paragraph 7.2.2 of procedure ISI-270, Revision 29,, Wet or Dry Methods of Magnetic Particle Examination of Welds, Studs, Bolts and Pump Fly Wheels, requires that "Excess particles shall be removed by means of dry-air current of sufficient force to remove excess particles without disturbing particles which are indicative of discontinuities."

For Licensee inspection of Service Contractors, Guide 5,, Revision 2, Verification of Certification for Personnel, Equipment, and Consumables, of the Inservice Inspection Manual, implements the requirements of Section 7.8, Revision 5, Audit, Inspection, and Surveillance of Service Contractors of the Nuclear Procurement Manual. Paragraph 3.2 of Guide 5 requires verification by the ISI Section that contractor personnel on site are certified prior to being allowed to perform examination and that certification records be reviewed by NQC. Paragraph 3.3 of Guide 5 requires verification by the ISI Section that calibration records for NDE Contractor's equipment used for NDE are submitted to NQC prior to beginning work on site.

Contrary to the above, between April 20 and 21, 1994, activities affecting quality were not being accomplished in accordance with procedures in that:

- For Feedwater System weld C2.1.153, the NDE examiner was removing the excess particles by blowing with his mouth, resulting in poor inspection technique.
- One Eddy Current (ET) Analyst was performing analysis before his certification records arrived on site.
- Qualification records for three ET Analysts and one ISI NDE (PT, MT, and UT) examiner had not been reviewed and approved by NQC. In addition, eye examination records were missing from the file of one of the ET analysts.
- ET equipment calibration records had not been submitted to NQC for review and approval prior to beginning work. In addition, calibration records for one UT instrument (Serial # 31459-1511) had not been approved by NQC.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) accepts the violation.

#### REASON FOR THE VIOLATION

The reason for the first example of the violation was personnel error. The BWNT task leader had conducted a procedure review with the BWNT ISI technicians which covered various technical aspects of the NDE procedures in use. The examiner did not correctly perform this specific requirement of the BWNT magnetic particle procedure.

The remaining examples were the result of a weakness in the handling and documentation of contractor or equipment certifications. No mechanism currently exists to require a consistent process for transmitting the packages to the reviewing organization, documenting the results and assuring the reviews are completed prior to work authorization by the contract manager.

#### CORRECTIVE ACTIONS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

For the first example, the inspection was re-performed in accordance with the magnetic particle procedure ISI-270 and the excess particles were removed by means of dry-air current. No indications were identified. The BWNT task leader again conducted a review with the technicians covering this incorrect technique.

All personnel and equipment certifications were reviewed by NQC and all were found to be acceptable. As an additional check, the CR-3 eddy current test procedure has been revised to add a prerequisite requiring that all personnel and equipment certifications be approved prior to performance of any work instruction under the procedure.

#### CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

The Inservice Inspection Section Manual (Administration Guide 5) will be revised to require the conduct of a documented procedure review covering technical aspects of the NDE procedures before the NDE is begun. In addition, it will be revised to provide a methodology for transmitting documentation for review and assuring documents are reviewed prior to work performance.

NQC will revise a Quality Programs procedure to include the review of contractor services. The procedure will include a formal transmittal for certifications and reviews.

#### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

The revision to the ISI Manual will be completed prior to Refuel 10 which is scheduled for the Spring of 1996. The NQC procedure will be developed by December 1, 1994.

VIOLATION 50-302/94-11-02

10 CFR50, Appendix B, Criterion V, as implemented by FSAR Section 1.7.1.5 requires that activities affecting quality shall be prescribed by documented procedures and shall be accomplished in accordance with such procedures.

Contrary to the above on April 20, 1994 activities affecting quality were being performed without documented procedures in that contractor ET analysts, were given plant-specific performance examinations to demonstrate plant-specific analytical skills without a written and approved performance demonstration program.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) denies the violation.

REASON FOR THE DENIAL

The reason for denying the violation is that the activity inspected was not a test intended to qualify the eddy current analysts. The analysts were considered qualified by verification of BWNT's approved, written program which meets all regulatory requirements. The activity inspected was supplemental to the BWNT program and was controlled less formally, but in a manner appropriate to the circumstances as required by 10 CFR 50 Appendix B.

FPC is currently committed to the rules established by the ASME Section XI Rules for Inservice Inspection of Nuclear Power Plant Components 1983 Edition, Summer 1983 Addenda. Section IWA-2300, Qualification of Nondestructive Examination Personnel, requires that personnel performing nondestructive examination operations shall be qualified with a written procedure prepared in accordance with SNT-TC-1A 1980, except as required in subsections (1), (2), and (3) of the Section IWA-2300. Subsections (1), (2), and (3) clarify requirements for recertification and examination. B&W Nuclear Technologies Inservice Inspection procedure ISI-24, Administrative Procedure for the Written Practice of Personnel Qualification in Eddy Current Examination, is the procedure used to govern the written practice and requirements for qualification and certification of BWNT personnel in accordance with SNT-TC-1A and Section XI of the ASME Code for eddy current examination. ISI-24 addresses educational requirements, minimum experience requirements for certification, training, physical and written examinations, grading of examinations including provisions for retesting, and certification.

ISI-24 Revision 17 was included in the Eddy Current Examination Manual prepared by BWNT for Crystal River Unit 3. ISI-24 Revision 17 was reviewed by FPC and was approved by the CR-3 Plant Review Committee prior to issue to the field for use during Refuel Outage 9. By review of this document, the content and adequacy of classroom and laboratory training requirements, course outline including the number of instruction hours and examination requirements, practical examination requirements, qualification criteria, and written and practical re-examination requirements for the BWNT eddy current analysts who performed data analysis at CR-3 were verified. Based on this verification FPC considers these analysts to be qualified to perform the steam generator eddy analysis at CR-3.

In addition to the ASME code requirements for qualification of nondestructive examination personnel, the EPRI PWR Steam Generator Examination Guidelines recommend that plant specific analyst performance demonstration programs be developed. The EPRI guidelines recommend that each program describe the performance demonstration process, provide for lecture and laboratory sessions, and establish practical examination content and acceptance criteria.

Prior to Refuel 9, FPC contracted with BWNT to develop a performance demonstration test, similar to that described in the EPRI guidelines, which would use CR-3 eddy current data from previous outages to both demonstrate and enhance analyst performance and refamiliarize analysts with typical eddy current signals observed at CR-3. This is the plant-specific performance examination referred to in the violation. This test was supplemental to the requirements of the ASME code and SNT-TC-1A and was not intended to implement the requirements established by these documents for qualification of NDE personnel. Although this test was administered in a less formal manner, FPC is satisfied that the controls were appropriate to the circumstances.

#### INDEPENDENT EDDY CURRENT ANALYSTS

A "programmatic weakness" was identified during Refuel 9 with respect to the use of two independent contractors to perform eddy current analysis. Use of independent teams for analysis is discussed in the EPRI PWR Steam Generator Examination Guidelines, but is not currently a code requirement. Per the EPRI guidelines, the stated purpose of independent analysis teams is to reduce the likelihood of a missed or incorrectly called eddy current indication. To maintain independence, the primary and secondary analyses are to be done separately and not as a joint effort. The EPRI guidelines do not specify that independence can only be achieved through the use of two independent organizations for data analysis. Independence is only defined as maintenance of separateness during the analysis process.

Current practice at CR-3 is to use manual analysis by BWNT certified eddy current analysts as the primary analysis team and to utilize computer data screening as the independent secondary analysis team with a separate BWNT operator. Section 4.4.4 of the EPRI guidelines discusses the acceptability of using computer data screening as one of the analysis teams. In no case during analysis of CR-3 data did the same analyst perform both the manual primary analysis and the secondary analysis function of computer data screening operator for the same eddy current data. These functions were always performed by two separate analysts. Additionally, no collaboration was permitted between the primary and secondary analysts. Any discrepancies between primary and secondary analysis results were resolved during the resolution process by the Lead Analyst using written guidelines. Thus, independence of data analysis at CR-3 was maintained at all times.

FPC is satisfied that all regulatory requirements and the intent of the EPRI Guidelines are being met. The performance of the steam generators at CR-3 support our position that there is no programmatic weakness in the analysis of eddy current data.