DD-91-6

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Thomas E. Murley, Director

In the Matter of	)	
FLORIDA POWER CORPORATION	)	Docket No. 50-302
(Crystal River Unit 3 Nuclear Generating Plant)	)	(10 CFR §2.206)

DIRECTOR'S DECISION UNDER 10 CFR §2.206

INTRODUCTION

Louis D. Putney, on behalf of his client, Edward S. Wollesen, filed a request (Petition) dated June 25, 1991 with the Executive Director for Operations, pursuant to Section 2.206 of Title 10 of the Code of Federal Regulations (10 CFR §2.206), that the United States Nuclear Regulatory Commission (NRC) institute a proceeding pursuant to 10 CFR §2.202 to suspend or revoke the operating license of the Florida Power Corporation's (FPC or the Licensee) Crystal River Unit 3 Nuclear Generating Plant (CR-3), or take such other action as may be proper. In response to an NRC request, this Petition was supplemented by a letter from Mr. Wollesen (Petitioner) dated July 23, 1991,[1] which provided additional details and clarification regarding each allegation in the Petition. The original allegations are summarized as follows:

1) Issues related to Petitioner's complaint to the United States Department of Labor regarding the termination of his employment with FPC were raised in the July 23, 1991 letter, but are not addressed herein.

1. 1500 to 3000 safety-related instruments are not properly identified and are not in a proper calibration program. They do not appear on plant engineering diagrams and the diagrams do not represent the actual plant configuration.
2. FPC's Security and Fire Protection Programs are not sufficiently defined as to be auditable.
3. FPC has not adequately defined and does not know the exact requirements of the plant's Technical Specifications (TS).
4. The uncontrolled Plant Review Committee Guidelines Manual includes mandatory instructions for nuclear operations, contrary to NRC requirements.
5. Since no verification of calibration was performed when instrument calibration stickers were removed from the plant's instruments, there is no assurance that these instruments are in calibration.

NRC Inspection Report 50-302/91-15, dated September 11, 1991 documents the results of an inspection by a Region II inspection team covering the issues raised in the Petition and the July 23, 1991 letter. FPC provided its response to the Petition by letter dated September 20, 1991. Both of these documents were considered in evaluating the Petitioner's allegations.

DISCUSSION

A. Plant Instruments Not Calibrated and Not on Engineering Diagrams

The statement of this concern in the Petition is as follows:

> 1,500 to 3,000 instruments in the nuclear plant, most of which are identified to be safety related or important to safety, are not being controlled as required by the regulations of the Nuclear Regulatory Commission, that is, they are not properly identified and are not in a proper calibration program. Therefore, the operability of these instruments, which are relied upon by the nuclear operators, is questionable. This is obviously a very serious nuclear safety concern. In more technical terms, these

> instruments are not in Florida Power's Configuration Management Information System (CMIS), therefore there are no controlled calibration data sheets relating to these instruments. As a result, it is impossible for Florida Power to determine that the instruments meet or remain within their engineering design standards as required by the NRC. Further, the engineering diagrams of the nuclear plant do not include these instruments, and the diagrams are not representative of the actual configuration of the plant, as required by the NRC.

As elaborated by the July 23, 1991 letter, the Petitioner's allegation can be summarized as follows.

Some 1500 to 3000 instruments were removed from the Master Instrument List and do not appear in the Configuration Management Information System (CMIS). As a result, they are not in a proper calibration program and have no controlled calibration data sheets. Therefore, FPC cannot determine if these instruments meet their engineering design standards. The plant engineering diagrams do not show these instruments, particularly those used to monitor the emergency diesel generators which have previously been identified as overdue for calibration.

To correct the shortcomings in its earlier instrument calibration program, the licensee initiated an enhanced program in early 1988 which simplified and improved the control of instrument calibration. FPC is implementing this new program under FPC's Preventive Maintenance Program, which is supported by a new computerized work control system, the Maintenance Activity Control System (MACS) and the new CMIS. More than half of the 15,000 instruments previously on the Master Instrument List have been deleted from the program because they do not require periodic calibration or are no longer in use. FPC recently removed a number of instrument data sheets, roughly corresponding to the 1500-3000 specified by the Petition, from the Document Control System because the instruments do not require periodic calibration.

Since the 1500-3000 instruments specified by the allegation were not identified, the NRC inspectors examined a random sample of 83 instruments on the Master Instrument List dated January 29, 1986. Of these 83 instruments, seven were not in the current MACS/CMIS system. However, a valid basis existed for the removal of each instrument from the program, such as removal of the instrument from the plant or installation in a system no longer used in the plant. The remaining 76 instruments are listed in MACS/CMIS.

The inspection team also examined a sample of 52 plant instruments to determine their current calibration status and schedule for routine calibration. Some minor deficiencies were noted and identified to the licensee for correction.[2]

Although procedures implementing MACS and CMIS were found to be generally adequate, the minor deficiencies and the lack of clarity in assignment of responsibility for maintaining instrument categories in CMIS reported by the inspection team indicate that these areas are not fully covered in the procedures and that a comprehensive procedure for controlling and using MACS and CMIS data bases for instrument calibration would be helpful. This was also identified to the licensee.

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2) Two instruments of the 52 were out of calibration, but were so identified in MACS, and work requests were in place to perform calibrations. The one accessible instrument had a deficiency tag on it. Another two of the 52 instruments, a flow element and flow transmitter in the reactor building vent mid-range and high-range radiation monitor, were not routinely calibrated, because they were classified as not requiring calibration. These instruments are used for post-accident historical data. The licensee has undertaken to calibrate these instruments in the future, but has not agreed that the classification is incorrect. Four additional instruments were incorrectly classified as not requiring calibration, but were in fact in calibration and scheduled for routine calibration via recurring work request. Another instrument did not have an instrument category assigned in CMIS, and as a result, was incorrectly not required by MACS to be calibrated. However, the instrument was in calibration and was scheduled for routine calibration. The inspection team requested a listing of all instruments with no assigned instrument category, and found that 90% of the 739 such instruments on the list were in fact devices which cannot be calibrated, such as thermowells and solenoid valves. The inspection team reviewed a sample of the remaining 10% of the instruments on the list and found that all the instruments in the sample were in fact calibrated and scheduled for routine calibration. The deficiency in category assignments in CMIS was identified to the licensee for correction.

However, the above discrepancies have not resulted in instruments not being calibrated as necessary, with no identified exceptions of importance to safety. In general, instruments reviewed by the inspection team are being calibrated even if calibration is shown as not required in CMIS or MACS. Instruments subject to calibration have calibration data sheets controlled within the FPC Documentation Control System. Other significant design information is cross-referenced by one or more CMIS functions.

The inspection team compared the engineering drawings for 21 of the instruments in the 52-instrument sample with the actual plant configuration and found two minor discrepancies which were identified to the licensee for correction.[3] The inspection team also performed a walkdown of several emergency diesel generator systems on both diesels. For the approximately 50 instruments in the diesel generator systems, no significant discrepancies between the actual systems configuration and the drawings were found. In addition, approximately a dozen diesel-related instruments were reviewed for calibration status, and one were found to be overdue for calibration.

The licensee has been engaged in a major program to upgrade its overall configuration management program, including a system-by-system evaluation of all components and field validation. After completion of this program on 60% of the systems, no programmatic problems have been identified. The program ensures correction of individual discrepancies as found.

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3) Piping drawing WD-101-FE was incorrect in that the integral flow element and transmitter were shown as seperate instruments, and there were no flow element isolation valves. In addition, the drawing label for FS-65-PI, fire main pressure at the inlet to the automatic deluge valve, did not agree with the label on the instrument.

Based on the above, we conclude that although many instruments were removed from the Master Instrument List and do not appear in CMIS, they are not required to be in the current calibration program because they either do not require periodic calibration or are not in use in the plant. We further conclude that there is no significant programmatic inadequacy in the licensee's current instrumentation calibration program, although some specific deficiencies exist and have been identified to the licensee for correction. The licensee maintains the necessary calibration data sheets, and the reviewed instruments requiring calibration have, in almost all cases, been calibrated and are scheduled for periodic routine calibration. Emergency diesel generator instruments reviewed were not found overdue for calibration, and no significant discrepancies between these (and other) instruments and plant engineering drawings have been identified. Therefore, we conclude that no substantial safety issue has been raised in the Petition regarding this allegation.

B. Security and Fire Protection Programs Not Adequately Defined

The statement of this concern in the Petition is as follows:

> Florida Power stated in recent Quality Audit Reports (which are required by the NRC under Florida Power's license commitments) that various audited programs, including Security and Fire Protection, complied with NRC requirements. The reports also stated that the programs needed to be defined. In fact, the audited programs are not sufficiently defined so as to be auditable as required by the NRC. These unaudited safety related programs give cause for great concern for the safety of the nuclear plant.

In the July 23, 1991 letter, the Petitioner noted that various FPC audit teams recommended that implementing procedures be listed in the program documents and questioned the procedure review process. The same kinds of questions about the procedure review process are repeated in Allegation C and are addressed in the discussion of Allegation C below.

The NRC addressed only the Security and Fire Protection Programs because the Petitioner specifically identified only these programs as examples of "various audited programs."

The inspection team reviewed seven different licensee and contractor audit reports issued between March 1990 and May 1991 which addressed security or fire protection. No report concluded that the Security or Fire Protection programs needed to be defined. One report concluded that, except for specific findings unrelated to this allegation, the Fire Protection Program was adequately defined. Another recommended that a listing of the fire protection implementing procedures be included in the Fire Protection Plan as an aid, but that, with the exception of three unrelated findings, the Fire Protection Program was effectively controlled and implemented.

The inspection team found that cross-references between the Fire Protection Plan and implementing procedures are included in individual paragraphs in the Plan. In response to a licensee QA audit, a separate listing of Fire Protection Plan implementing procedures is being prepared for inclusion in the Plan. In addition, the FPC Nuclear Operations Commitment System (NOCS) was sampled and shown to provide cross-references between selected Plan paragraphs, originating requirements or commitments, and implementing procedures.

The requirements for fire protection at nuclear power plants are defined in considerable detail in 10 CFR 50.48, 10 CFR Part 50, Appendix R, 10 CFR Part 50 Appendix A, Criterion 3, and, for CR-3 in particular, in its TS. FPC audits and NRC inspections have addressed this program without identifying significant deficiencies in definition or auditability. See NRC Inspection Reports 50-302/89-33 and 91-15.

The CR-3 Security Plan has been, and continues to be, in conformance with regulatory requirements. The Security Plan was originally reviewed and approved by the NRC in its Safety Evaluation for the CR-3 operating license dated July 5, 1974. Many specific changes have been reviewed and approved since that time, and review and approval of a full revision of the entire plan was completed in early 1991. (See letters dated July 31, 1990 and February 11, 1991 from William E. Cline (NRC) to Percy M. Beard, Jr. (FPC)). Periodic NRC inspections have demonstrated that implementation of the Security Plan is acceptable. See NRC Inspection Report 50-302/91-07 (SALP), at p.13. The inspection team noted that the NOCS adequately cross-references the Security Plan requirements to the various implementing procedures.

Based on the above, we conclude that the Security and Fire Protection Programs are satisfactorily defined and therefore auditable. Moreover, we have found no evidence that the programs are deficient. Accordingly, we conclude that no substantial safety issue has been raised in the Petition regarding this allegation.

C. Technical Specifications Not Defined, Exact Requirements Unknown to FPC

The statement of this allegation in the Petition is as follows:

> Florida Power's license requirements with the NRC require it to meet the Technical Specifications (TS) for the nuclear plant. Florida Power has not adequately defined and does not know the exact requirements of the Technical Specifications for the nuclear plant, therefore, Florida Power cannot accurately report that it is complying with the TS, and it is impossible to audit the TS program. This is a serious nuclear safety concern.

In the July 23, 1991 letter, the Petitioner narrowed the allegation considerably, so that the thrust of the allegation is now as follows.

1. The review required by TS 6.8.2.1.a. of the implementing procedures for the Security Plan and Fire Protection Plan, and of Administrative Instructions, by the Plant Review Committee (PRC), is not defined and PRC members are not qualified to review implementing procedures.
2. Appendix A of NRC Regulatory Guide (RG) 1.33 "Quality Assurance Program Requirements," identifies certain Administrative Procedures that each licensee must prepare and maintain. Some of the implementing procedures for these Administrative Procedures are not in the group identified as Administrative Instructions, and therefore may not be reviewed at all, or may be reviewed by Qualified Reviewers (rather than the PRC), which would be a reduction in quality.

The licensee originally pr. 'sed complete TS in its operating license application. These were reviewed thoroughly and approved by the NRC. All changes to the TS are likewise reviewed and approved by the NRC prior to issuance. Compliance with the TS is monitored by NRC inspectors. Where there has been evidence of inadequate or incorrect TS, they have been revised. The NRC has no evidence of general lack of definition of the TS or lack of knowledge of its requirements by FPC.

The following addresses the specific allegations of the July 23, 199' letter.

1. TS 6.5.1.2 specifies areas from which supervisory personnel are to be chosen as members of the PRC, among which is Security. FPC confirmed that members are selected on the basis of qualifications and experience required for their positions. The inspection team found that the PRC "consists of a diverse group of senior nuclear plant managers." The latest NRC SALP report, Inspection Report

50-302/91-07, dated June 28, 1991, states that the PRC "continued to be staffed with qualified personnel." The inspection team further notes that FPC document AI-300, "Plant Review Committee Charter," contains requirements for training PRC members and that FPC maintains a record of such training.

The licensee notes that PRC procedure review is performed in accordance with existing guidelines and procedures (AI-300), although there is no checklist defining all the factors the PRC must consider. Rather, the broad experience and qualifications of the members permit an effective review of implementing procedures by collegial discussion. Although individual cases of deficiencies in plant procedures have come to the attention of the NRC (and have been corrected by the licensee), the NRC has no evidence that PRC review of those procedures was ineffective because of lack of PRC review definition.

2. The inspection team found that four of the required RG 1.33 Administrative Procedures are not implemented by those FPC procedures categorized as Administrative Instructions, nor are they required to be. Therefore, in accordance with TS 6.8.2.1.b, these must be reviewed by the Qualified Reviewer process, with PRC being required to review only the 10 CFR §50.59 safety evaluation. However, the PRC in practice does more than just review the 10 CFR §50.59 safety evaluation. For other than minor or routine procedure changes, the author of the change or other knowledgeable representative from the responsible department typically makes a presentation to the PRC on the change.

The classification of "Administrative Instructions" or "other procedures" is not made on the basis of safety importance. Many of

the "other procedures" are of significant importance to the safe operation of the nuclear plant, such as procedures for combatting nuclear plant emergencies and for controlling radioactivity.

Administrative Instructions typically cover matters of general policy or broad applicability, and therefore warrant PRC review. Other procedures involve areas of narrower applicability and greater technical detail. These other procedures must be reviewed by an intradepartmental Qualified Reviewer, and where appropriate, by interdisciplinary Qualified Reviewer(s) in interfacing departments, and be approved by the responsible Superintendent or Manager. Qualified Reviewers are typically experienced personnel with a high level of technical knowledge in a particular area, who also have specialized training in review of procedures. NRC requirements for training and qualifications of Qualified Reviewers are contained in TS 6.8.2.2.

Based on the above, we conclude that the CR-3 TS are adequately defined and that the licensee has adequate knowledge of their requirements. We further conclude that PRC members are qualified and adequately trained to review implementing procedures, that PRC review of such implementing procedures complies with TS 6.8.2.1.a, and that PRC review is adequately defined. We also conclude that review of implementing procedures of the four required RG 1.33 Administrative Procedures in accordance with TS 6.8.2.1.b (Qualified Reviewer process) is acceptable. Furthermore, there is no reason to conclude that the Qualified Reviewer process constitutes a reduction in quality. Therefore, no substantial safety issue has been raised in the Petition regarding this allegation.

D. Mandatory Instructions in Uncontrolled Documents

The statement of this concern in the Petition is as follows:

> The NRC requires that Florida Power not include mandatory instructions in uncontrolled manuals used by nuclear operations (ANSI Standard N45.2.10-1973). This is because uncontrolled manuals may be outdated, causing personnel to implement the wrong procedure. Florida Power's Plant Review Committee Guidelines Manual, an uncontrolled manual, includes mandatory instructions for nuclear operations. This is a serious nuclear safety concern.

The July 23, 1991 letter indicated that the "mandatory instructi[illegible] nuclear operations" contained in the uncontrolled PRC Guidelines Manu[illegible]e instructions to comply with the TS (presumably TS 6.8) governing PRC activities, and Administrative Instruction AI-300, "Plant Review Committee Charter."

The inspection team examined copies of the PRC Guidelines Manual, and found that they contained outdated TS pages and an outdated copy of AI-300. Both the TS pages and AI-300 include mandatory instructions for conduct of the PRC. Although the PRC Guidelines Manual contains the word "guidelines," it was officially distributed to PRC members for use in performing PRC duties, and is listed in AI-300 as an implementing reference. Therefore, TS requirements and implementing procedures contained in the Guidelines Manual should be up-to-date. Accordingly, a non-cited violation was identified (NCV 91-15-02). This violation was not cited in a Notice of Violation because criteria specified in 10 CFR Part 2, Appendix C, Section V.A (NRC Enforcement Policy) were satisfied. This was an isolated Severity Level V violation, and the licensee initiated appropriate corrective action before the inspection ended as discussed below. The NRC considers this violation to be of minor safety significance. FPC stated that it considered the PRC

Guidelines Manual to be a "guidance" document and, as an uncontrolled document, did not rely on it to provide mandatory instructions of any kind. Training of PRC members includes a review of the current revision of AI-300 and emphasizes that employees refer to the latest revision of plant documents. AI-300 and the TS are controlled documents, and it is not likely that outdated copies in the PRC Guidelines Manual would have caused a PRC member to take erroneous action or to take any action which would negatively affect nuclear safety. Moreover, the licensee took prompt initial corrective action, including revising AI-300 to delete the PRC Guidelines Manual from the list of implementing references and recalling all copies of the PRC Guidelines Manual. The NRC will review the licensee's final corrective action.

Based on the above, we conclude that no substantial safety issue has been raised in the Petition regarding this allegation.

E. Knowledge of Instrument Calibration Status

The statement of this concern in the Petition is as follows:

> The January 1991 OPS Audit identified problems with instrument calibration at the nuclear plant. Florida Power had recently adopted a program to remove the instrument calibration stickers from the plants instruments. The stickers were the only place to obtain current information on the instruments. In implementing this program, no verification of calibration was performed, therefore, there is no assurance these safety related instruments are in calibration as required by the NRC. When this problem was identified, audit management and the nuclear plant management told the audit team to forget the issue. This is a serious nuclear safety concern.

The July 23, 1991 letter indicates that the Petitioner's concern focused on operator knowledge of the calibration status of the instruments and the alleged failure of the new calibration program to properly inform operators of instruments past due for calibration.

A system of instrument tags is the principal method by which operators are provided the required information on the status of instrument calibration.

Organizations responsible for calibration of instruments attach yellow stickers to instruments overdue for calibration. Operators have been directed to assume that any instrument not so tagged is in calibration, and any instrument with a tag is either overdue for calibration or in need of maintenance. Operators are not to use such tagged instruments without further review. Although MACS provides the calibration status of individual instruments and also lists all out-of-calibration instruments associated with a particular surveillance procedure, it appears that operator training in and ability to utilize MACS is not fully effective. This was identified to the licensee as a weakness.

Regarding the Petitioner's allegation that the calibration stickers formerly in use were the only place to obtain current calibration information on the instrument, the inspection team found that the licensee's official record of instrument calibration was and continues to be the instrument calibration data sheets. These are retained in document control and information therein is entered into a computer database separate from MACS and accessible from many computers, including those in the control room. The licensee also stated that in a recent audit, random checks by each audit team member did not identify any instruments out of calibration.

Based on the above, we conclude that adequate information is readily available to operators to ascertain the calibration status of instruments. Therefore, no substantial safety issue has been raised in the Petition regarding this allegation.

CONCLUSION

The institution of proceedings pursuant to 10 CFR §2.202 is appropriate only when substantial health and safety issues have been raised.

See Consolidated Edison Company of New York (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 NRC 173, 176 (1975) and Washington Public Power System (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). The NRC has applied this standard to determine if the actions requested in the Petition are warranted. For the reasons discussed above, the NRC has no basis for taking the actions requested in the Petition, since no substantial health and safety issues have been raised by the Petition. Accordingly, the Petitioner's request for action pursuant to 10 CFR §2.206 is denied.

A copy of this decision will be filed with the Secretary for the Commission's review in accordance with 10 CFR §2.206(c).

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas E. Murley

Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 3rd day of November, 1991.