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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
AUTH.NAME AUTHOR AFFILIATION
WILLIAMS,J.W. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
VARGA,S.A. Operating Reactors Branch 1

SUBJECT: Responds to 840814 draft safety evaluation of inadequate core cooling instrumentwation sys,per NUREG-0737,Item II.F.2,Addl info,implementation milestones, & implementation rept for reactor vessel level monitoring sys encl.

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P. O. BOX 14000, JUNO BEACH, FL 33408

FLORIDA POWER & LIGHT COMPANY

L-84-239
September 20, 1984

Office of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Branch Chief
Operating Reactors Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 and 50-251
Inadequate Core Cooling Instrumentation (ICCI) System
NUREG-0737, Item II.F.2

The enclosed information is submitted in response to your August 14, 1984 letter which forwarded a draft Safety Evaluation for the Turkey Point Units 3 and 4 ICCI System. Enclosure (1) includes a response to the request for additional information regarding the ICCI System design. Enclosure (2) includes the milestones for implementation of the ICCI System. Enclosure (3) is the Implementation Report for the Reactor Vessel Level Monitoring System (RVLMS). In providing Enclosure (3), Florida Power & Light Company requests NRC approval of the RVLMS installations for Turkey Point Units 3 and 4. This information was discussed during the NRC ICCI System audit at the St. Lucie and Turkey Point sites on August 7 and 8, 1984.

Should you or your staff have any questions regarding this information, please contact us.

Very truly yours,

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

JWW/TCG/cab

cc: J. P. O'Reilly, Region II
Harold F. Reis, Esquire

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ATTACHMENT 2 TO
ENCLOSURE (1)

INADEQUATE CORE COOLING SYSTEM (ICCS)

PTP - UNITS 3 & 4

The following information updates our responses to NRC Generic Letter No. 82-28 submitted to the NRC on 3/10/83 (L-83-135):

1. Item 3 (b) - Procurement schedule.

   All equipment has been delivered.

2. Item 3 (c) - Installation schedule.

   All equipment has been installed except the interconnecting cable from QSPOS to SAS.
   The ICCS is in operation, however the qualification test reports for the MI cable - connector, have not been completed.
   C.E. expects to have the MI cable test completed by November 1984.

3. Item 3 (d) - Test and Qualification Reports.

   C.E. expects to have the MI cable test completed by November 1984. All other equipment qualification tests have been completed.

4. Item 4 table 1 (1-b and 1-c) - Status of Conformance of ICCS with NUREG-0737 II.F.2.

   The ICCS has been completely installed and the old SMM has been removed.

5. Item 4 table 1 (2,3,4, and 5) - Status of Conformance of the ICCS with NUREG-0737 II.F.2.

   All documents have been completed.

6. Item 4 table 1 (6) - Status of Conformance of the ICCS with NUREG-0737 II.F.2.

   ICCS installation has been completed.
   ICCS test report has been completed except MI cable test, which is scheduled by C.E. to be completed by November 1984.

7. Item 4 table 1 (7) - Status of Conformance of the ICCS with NUREG-0737 II.F.2.

   Guidelines for operability of the RVLMS have not yet been provided by Combustion Engineering.

8. Item 4 table 2 (3) - Conformance with Appendix B of NUREG-0737.

ICCS will be powered from inverters as follows:
Unit 4 - Next 1985 Fall outage.
Unit 3 - 1986 outage.

9. Item 4 table 3 (7) - Conformance with NUREG-0737 - CET Criteria

Qualification test report for cable - connectors will be completed by November 1984.

ENCLOSURE (2)

MILESTONES FOR IMPLEMENTATION OF

INADEQUATE CORE COOLING INSTRUMENTATION

1. Submit final design description (by licensee) (complete the documentation requirements of NUREG-0737, Item II.F.2, including all plant-specific information items identified in applicable NRC evaluation reports for generic approved systems).

   FPL provided design and implementation details for the Turkey Point Units 3 and 4 ICCI Systems by letter dated March 10, 1983 (L-83-135) and supplemented on April 13, 1984 (L-84-100) and June 15, 1984 (L-84-155).

2. Approval of emergency operating procedure (EOP) technical guidelines (by NRC).

   NOTE: This EOP technical guideline which incorporates the selected system must be based on the intended uses of that system as described in approved generic EOP technical guidelines relevant to the selected system.

   The Westinghouse Owners Group Emergency Response Guidelines, Rev. 0, were approved by the NRC with comments in an SER dated June 1, 1983.

3. Inventory Tracking Systems (ITS) installation complete (by licensee).

   Unit 3 RVLMS installation was completed in December 1983. Unit 4 RVLMS installation was completed in May 1984.

4. ITS function testing and calibration complete (by licensee).

   Unit 3 RVLMS functional testing and calibration was completed on December 16, 1983. Unit 4 RVLMS functional testing and calibration was completed on May 25, 1984.

5. Prepare revisions to plant operating procedures and emergency procedures based on approved EOP guidelines (by licensee).

   The existing plant operating and emergency procedures will be revised to reflect the ICC System by November 30, 1984 and implemented by December 21, 1984. The revisions will be consistent with the technical content of the NRC approved Westinghouse Owners Group Emergency Response Guidelines.

   Implementation of plant specific emergency procedures based on the Westinghouse Owners Group Emergency Response Guidelines will occur by December 31, 1985 (FPL Letter L-84-33 dated February 14, 1984). This commitment was confirmed in an NRC Order dated February 23, 1984.

6. Implementation letter report to NRC (by licensee)

   By submittal of this letter.

7. Perform procedure walk-through to complete task analysis portion of ICCI system design (by licensee).

   The procedure walk-throughs to complete the task analysis portion of ICCI system design will be coordinated with the Task Analysis Upgrade Program (DCRDR) and the development and implementation of the procedures based on the approved Emergency Response Guidelines (See Milestone 5).

8. Turn on system for operation training and familiarization.

   The RVLMS systems for Unit 3 and 4 have been in operation since completion of the functional tests and calibration (See Milestone 3). Between April 4, 1983 and July 15, 1983, training on the new QSPDS System was presented to all licensed operators in the requalification classes.

9. Approval of plant-specific installation (by NRC)

   Pending NRC approval.

10. Implement modified operating procedures and emergency procedures (by licensee)

    See Milestone 5.

ENCLOSURE (3)

IMPLEMENTATION REPORT

INADEQUATE CORE COOLING INSTRUMENTATION (RVLMS)

1. The installation, functional testing, and calibration of the RVLMS portion of the ICCI system were completed by December 16, 1983 for Turkey Point Unit 3 and May 25, 1984 for Turkey Point Unit 4. The functional testing and calibration were completed in accordance with Temporary Procedure TP 0065, "Qualified Safety Parameter Display System Functional Test & Calibration". Copies of the procedure and test results for both units were given to the NRC during the ICCI System audit at the Turkey Point Plant on August 8, 1984.

2. Based on the test results obtained, the RVLMS performs in accordance with design expectations and within design error tolerances. There were no deviations from the design performance specifications. As discussed during the audit, there are a number of hardware and software problems which remain to be resolved. FPL is pursuing resolution of those problems with the vendor, Combustion Engineering (C-E).

3. Deviations of the as-built system from previous design descriptions (FPL letter L-83-135 dated March 10, 1983) are described in Attachment (2) to Enclosure (1) of this Submittal.

4. A request for modification of the Turkey Point Units 3 and 4 Technical Specifications to include all ICC instrumentation for accident monitoring was submitted to the NRC on June 15, 1984 (FPL Letter L-84-155). Appropriate operability requirements for the RVLMS have not yet been defined. Because of this, FPL on September 13, 1984 (FPL letter L-84-250) submitted a request to withdraw the requested specification for the RVLMS from Table 3.5.5, accident monitoring instrumentation. As a member of the C-E Owners Group, FPL will be participating in the effort to define appropriate operability requirements. Until this effort is completed, it would be inappropriate for FPL to establish a technical specification for this system.

5. By this submittal FPL is requesting approval of the plant-specific installation of the RVLMS for Turkey Point Units 3 and 4.

6. The emergency operating procedures used for operator training will conform to the technical content of NRC approved EOP guidelines. (See Enclosure (2) of this submittal, Milestones 2 and 5.)

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

ON THE ICCS

(ENCLOSURE 1)

1. Show schematically the final ICC instrumentation system and identify any deviations from the Appendix B to NUREG-0737 design requirements. Also, provide a detailed description of the power supply for ICCI and proposed upgrading plans with a completion schedule with respect to station Class 1E power sources stated in NUREG-0737, Appendix B, Criterion 3.

   The final ICCS schematic is shown on Fig. 1 (attachment 1). The only deviation from Appendix B to NUREG-0737 design requirements is the Power Supply for the ICCS.

   The Inadequate Core Cooling System is presently powered from panels 3(4)C202A and 3(4)C203A. These safety related panels are powered from the vital portion of MCC's 3(4)B and 3(4)C.

   In the event of a loss of offsite power, there will be momentary interruption of power to the ICCS until the MCC's are automatically sequenced onto the diesels. The ICCS can tolerate a power loss without "crashing" the system. The ICCS functions will be lost during the power loss only. Upon restoration of power, the system will automatically come back into operation.

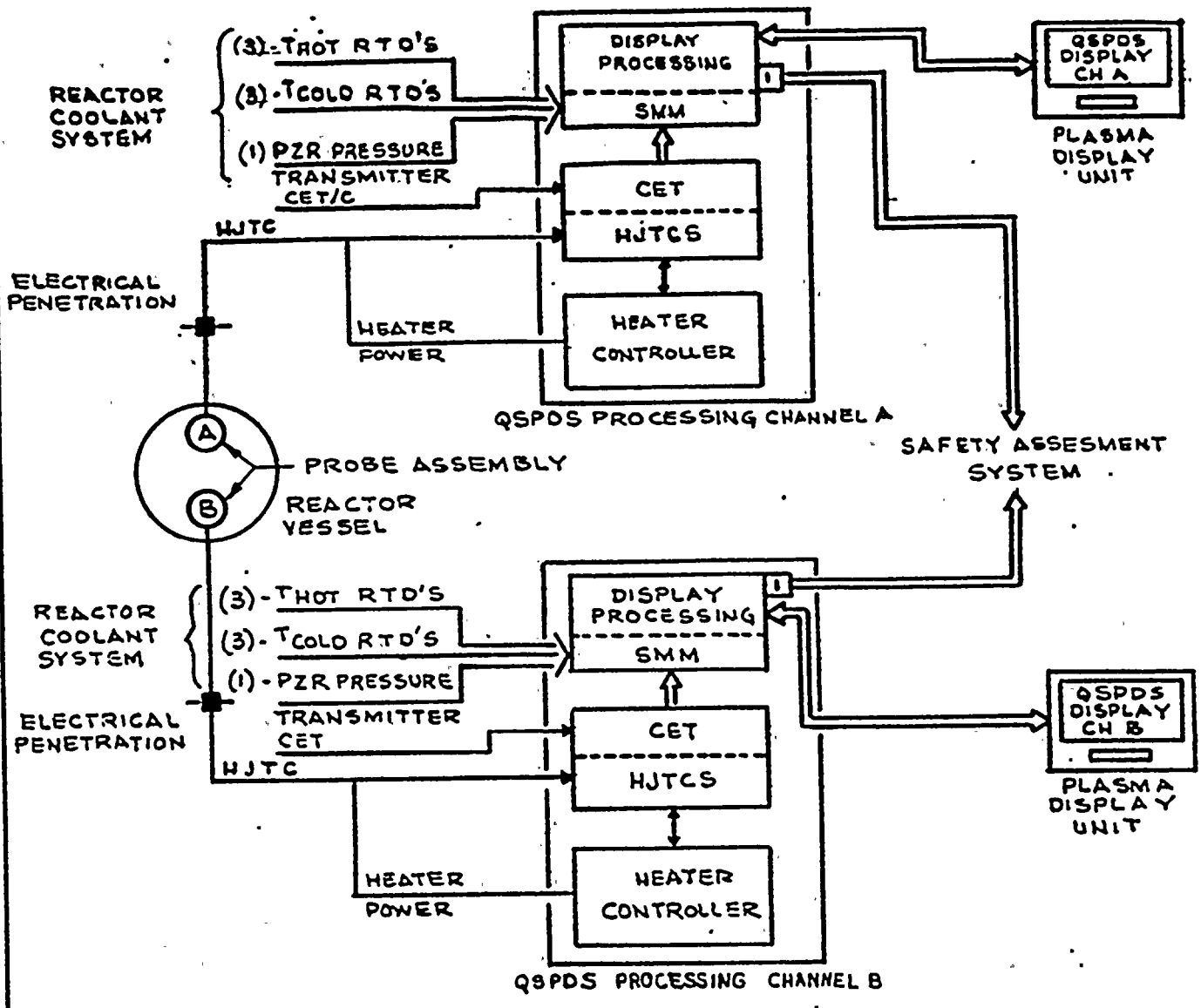
   The present power supplies represent on interim configuration until the Vital Inverters of Turkey Point are replaced. At that time, the ICCI will be transferred to the 120 volt vital a.c. system and powered from the Vital Instrumentation panels. These panels are fed from the Vital Inverters which are normallly fed from the battery chargers and backed up by the safety related plant batteries.

2. Describe the operational status of the final ICCI system, and identify any as-built deviations of the system from your previous design descriptions.

   The operational status of the final ICCS and deviations from the previous FPL submittal (FPL letter L-83-135 dated 3/10/83) is shown on Attachment 2.

ATTACHMENT 1 TO

ENCLOSURE (1)



APPROVED:

TURKEY POINT UNITS 3&4
QUALIFIED SAFETY PARAMETER
DISPLAY SYSTEM (QSPDS)
BLOCK DIAGRAM
FLORIDA POWER & LIGHT COMPANY

FIGURE

Official File Copy

SEP 18 1984

Florida Power and Light Company
ATTN: Mr. J. W. Williams, Jr.
Group Vice President
Nuclear Energy Department
P. O. Box 14000
Juno Beach, FL 33408

IE HQ FILE COPY

Gentlemen:

SUBJECT: MEETING SUMMARY - DOCKET NOS. 50-250 AND 50-251

This refers to a meeting that Mr. R. C. Lewis of my staff and I held with Mr. C. O. Woody of your staff. The meeting was held, at your request, in the Region II Office on September 10, 1984. We discussed the Turkey Point Plant Performance Enhancement Program and other related issues.

It is our opinion that the meeting was beneficial and has provided us with a better understanding of your plans.

Should you have any questions, we will be pleased to discuss them.

Sincerely,

James P. O'Reilly
Regional Administrator

cc: K. N. Harris, Vice President
Turkey Point Nuclear Plant
C. J. Baker, Plant Manager
Turkey Point Nuclear Plant

bcc: NRC Resident Inspector
Document Control Desk
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Docket Nos. 50-250/251

Mr. J. W. Williams, Jr., Vice President
Nuclear Energy Department
Florida Power and Light Company
Post Office Box 14000
Juno Beach, Florida 33408

Dear Mr. Williams:

SUBJECT: AUXILIARY ELECTRICAL POWER UPGRADE

Re: TURKEY POINT PLANT UNITS 3 AND 4

The Turkey Point Plant experienced a series of events on February 12 and 16, 1984, which included reactor trips, unscheduled shutdowns and loss of offsite power to Unit 3. By confirmation of Action Letter dated February 21, 1984, Florida Power and Light identified interim actions which were completed prior to restart and long term actions which included a review of the offsite and onsite electrical power system. FPL provided the results of their review and proposed design modifications for the NRC to review and approve prior to completing the proposed changes.

By letters dated June 22 and July 25, 1984, FPL provided design details and analysis in support of the auxiliary power upgrade. The staff has completed their review of the proposed design changes. The changes provide improved separation of safety-related loads; eliminates AC system undervoltage operating constraints; provides a direct electrical station blackout tie from the existing five cranking diesels to the Units' 4.16 KV busses; minimizes interaction with the fossil units and; provides additional electrical ties to the switch yard.

Based on the staff review of the information provided and our site visit on June 5 and 6, 1984, we have concluded that the design of the auxiliary electric power system upgrade results in an overall improvement in the electrical system and plant safety and is, therefore, acceptable. The details of our review are provided in the enclosed Safety Evaluation.

Sincerely,

/s/DWigginton, for

Steven A. Varga, Branch Chief
Operating Reactors Branch #1
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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