

**Florida
Power**

CORPORATION
Crystal River Unit 3
Docket No. 50-302

August 28, 1996
3F0896-25

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555-0001

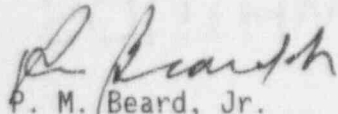
Subject: Special Report No. 96-03

Dear Sir:

Attached is Special Report 96-03 which is submitted in accordance with Florida Power Corporation's (FPC) Final Safety Analysis Report Section 2.5.4.4. This report discusses inoperable seismic monitoring instrumentation.

FSAR Section 2.5.4.4 requires a Special Report to be submitted when one or more seismic monitoring instruments is inoperable for more than 30 days. This report was not submitted as required by the FSAR and is considerably overdue. The attached report describes some of the circumstances which contributed to FPC's failure to recognize the FSAR commitment and provide a Special Report as required. A root cause evaluation of this error is being conducted under FPC's corrective action program for Problem Report PR 96-0229 which initiated this report.

Sincerely,



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

PMB/TWC

Attachment

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

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CRYSTAL RIVER ENERGY COMPLEX: 15760 W Power Line St • Crystal River, Florida 34428-6708 • (352) 795-6486

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SPECIAL REPORT 96-03

SEISMIC MONITORING INSTRUMENTATION INOPERABLE FOR GREATER THAN 30 DAYS

DESCRIPTION OF OCCURRENCE

On April 4, 1994, during Refueling Outage 9, maintenance personnel were informed by systems engineering that Triaxial Peak Accelographs located at the top of the Reactor (SI-4-MEI) and at the top of "A" Once Through Steam Generator [OTSG] (SI-5-MEI) were not required to be checked for operability in accordance with the applicable refueling interval performance test procedure PT-379 "Equipment Check of the Triaxial Peak Recording Accelerometers". This information was based on the disposition of a Request for Engineering Assistance (REA) which recommended abandoning these instruments. This disposition erroneously stated that there was no CR-3 commitment requiring these accelographs. As noted below, these instruments are addressed in Section 2.5.4.4 of the Final Safety Analysis Report (FSAR) which requires procedures to be in place to qualitatively assess, functionally test, and calibrate this instrumentation. On July 12, 1996, FPC determined the failure to perform PT-379 during Refuel 9 and again during Refuel 10 led to a failure to restore the instrumentation to operable status, and generated Problem Report PR 96-0229 which also identified the need for this Special Report.

BACKGROUND

In March, 1994 the description of the seismic instrumentation was relocated from CR-3's Standard Technical Specifications (TS) to Section 2.5.4.4 of the FSAR as part of CR-3's implementation of the Improved Technical Specifications (ITS). FPC committed to retain the relocated requirements in their entirety and change them, if desired, using the 10CFR50.59 process. Initially, the requirement to submit a Special Report within 10 days if one or more of the instruments is inoperable for more than 30 days was not included in the FSAR description as part of the ITS conversion process, although PT-379 did contain the requirement from the previous TS Required Action. The FSAR was revised in December, 1994 to include the requirement for the Special Report.

CAUSE OF MALFUNCTION

SI-4-MEI and SI-5-MEI are located in a harsh environment with temperatures at the high end of the rated range for these accelographs. As a result, they have experienced a history of failures when channel checks have been performed. Additionally, the background vibration at these locations makes any information that may be gained from the instruments difficult to evaluate. The above-mentioned REA stated that relocation of the instruments would supply additional information should an earthquake occur for comparison of the measured response with CR-3's design basis, but that the information would not be of significantly greater value than that supplied by the remaining accelographs located in less harsh environments.

ANALYSIS

The bases of the technical specification which was transferred to FSAR Section 2.5.4.4 stated that the seismic monitoring instrumentation was consistent with the recommendations of Safety Guide 12 "Instrumentation for Earthquakes", March 1971. Safety Guide 12 states, in addition to strong motion triaxial accelographs, that peak recording accelographs could be installed on other selected Category I structures, systems and components to verify the seismic response determined analytically from the traces recorded by the strong motion accelographs. The Safety Guide explains that this "other" instrumentation could provide data which would justify the application of less conservatism than might be needed in the absence of such measured data in evaluating the possible effects on the plant caused by an earthquake. Not having data provided from SI-4-MEI and SI-5-MEI would require CR-3 to determine analytically, the seismic effects on Category I structures, systems and components in a more conservative manner. In addition, any actual seismic acceleration should be significantly less than those reflected in CR-3's piping analyses which are based on extremely conservative seismic input.

The following additional seismic monitoring instruments and sensor locations provide sufficient information to meet the intent of Safety Guide 12:

Triaxial Time-History Acccelographs

- Containment Vessel Foundation
- Outside Containment on Top of Ring Girder
- Control Room Floor

Triaxial Peak Accelographs

- Top of Borated Water Storage Tank (BWST)

Triaxial Seismic Switches

- Containment Vessel Foundation

PLANS TO RESTORE INSTRUMENT(S) TO FUNCTIONAL STATUS

FPC plans to abandon SI-4-MEI or SI-5-MEI in place. A modification package has been generated to accomplish this action and includes the necessary justification in accordance with 10CFR50.59. Upon approval of the modification, a change to FSAR Section 2.5.4.4 will become effective omitting these instruments from the FSAR.

The root cause evaluation for Problem Report PR 96-0229 will determine (1) why the REA disposition failed to recognize the regulatory commitment associated with the accelographs and (2) why the reporting requirements were not transferred to the FSAR during the ITS conversion. Also, the controls in place to ensure other such former TS commitments are captured, and that appropriate personnel are aware of these commitments will be evaluated.