

**Florida
Power**
CORPORATION

April 29, 1983
3F-0483-30

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Adequacy of Station Electric Distribution System Voltage

Dear Sir:

Recent discussion between your staff and Florida Power Corporation (FPC) have led to a need for FPC to present a program for mutual resolution of the subject issue.

First, it is an important part of this program that FPC install the presently designed second level undervoltage relay protection system during the current refueling outage. FPC acknowledges that this system is not designed to IEEE-279-1971 for monthly testing capability, but it was designed to IEEE-279-1971 for refueling interval testing as is the installed first level undervoltage relay protection system. The CR-3 testing philosophy is that the testing of the system must, to fullest extent possible, not place the plant in a position where it might inadvertently trip. The difference in the required design of the system for a monthly test and for a refueling interval test makes it less safe to perform monthly tests using the present design than it is to perform refueling interval tests using the present design.

Therefore, FPC proposes to immediately begin the design of the modification necessary to fulfill the monthly testing requirement of IEEE-279-1971 consistent with the testing philosophy of CR-3 for both the first and second level undervoltage relay protection systems. This modification will be installed at the earliest possible time consistent with good design, engineering, procurement and installation practices but no later than Refuel V. FPC will submit the project schedule when developed and will submit the design for staff review upon completion.

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As compensatory measures until the final modification can be installed, FPC proposes to (1) install the second level undervoltage relay protection as designed (including a pre-operational function test) and (2) perform monthly relay bench calibration tests in lieu of the monthly functional test for the second level undervoltage relay protection.

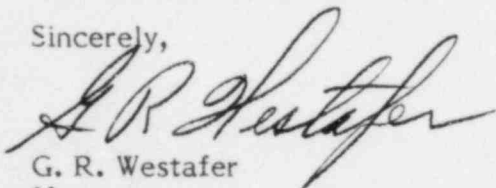
The pre-operational functional test will verify:

1. That a three-out-of-three logic for the second level undervoltage initiates protective measures when a voltage less than or equal to 3780 VAC is detected for greater than 7 seconds,
2. That the time delay and auxiliary relays provide coordination to start the Emergency Diesel Generator (D/G), trip the normal feeder breaker, close the D/G output breaker, lock out selected other breakers,
3. That an actuation of the second level undervoltage relays in conjunction with an ES actuation will bypass the time delay relay (13 seconds) and cause the normal feeder breaker to open, the D/G output breaker to close after breaker matrix is satisfied,
4. Alarms on the main control board associated with the second level undervoltage condition annunciate per design,
5. The events recorder logs the detection of degraded voltage condition and the diesel generator starts for degraded voltage condition,
6. The diesel generator output breaker will not close until at least three (3) seconds after the 4160 volt ES bus is deenergized, and
7. That loss-of-voltage relays associated with each 4160 volt ES bus are not inhibited by the addition of second level relays. This will be verified in part by successful completion of Steps 6.14 and 6.15 of SP-417 (Refueling Interval Integrated Plant Response to Engineered Safeguards Actuation).

The monthly relay bench calibration test will verify that the setpoint of the relays have not drifted.

Florida Power believes that this program is responsive to the requirements of your staff and affords CR-3 the necessary second level undervoltage relay protection. FPC will be responsive to a request from your staff for a meeting to discuss this program. In any event, your expeditious review of this matter is requested.

Sincerely,



G. R. Westafer
Manager
Nuclear Licensing and Fuel Management

RMB:mm

cc: Mr. James P. O'Reilly
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