



34 JUL 26 A 9: 33

**Florida  
Power**  
CORPORATION

July 23, 1984  
3F0784-16

Mr. J. P. O'Reilly  
Regional Administrator, Region II  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
101 Marietta Street N.W., Suite 2900  
Atlanta, GA 30323

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
Special Report No. 84-03

Dear Sir:

Enclosed is Special Report No. 84-03 which is submitted in accordance with  
Technical Specification 6.9.2.a.

Should there be any questions, please contact this office.

Sincerely,

G. R. Westafer  
Manager, Nuclear Operations  
Licensing and Fuel Management

AEF/feb

Attachment

cc: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

8408160410 840723  
PDR ADOCK 05000302  
S PDR

OFFICIAL COPY

1022

## SPECIAL REPORT NO. 84-03

### EVENT DESCRIPTION

On April 24, 1984 at 1040, Crystal River Unit 3 experienced a partial Engineered Safeguards System Actuation. The unit was at 97% reactor power (865 MWe) with Surveillance Procedure, "Engineered Safeguards Monthly Functional Test" in progress. A false low pressure and high pressure injection occurred when, with Channel 3 tripped in order to test it, a low pressure bistable in Channel 2 inadvertently actuated completing the required two out of three actuation logic. Borated water was injected into the Reactor Coolant System from the Borated Water Storage Tank. Due to quick operator action, approximately 30 gallons were injected, and the effect on the primary plant was minimal.

With the reactor coolant pressure above setpoint, the low pressure bistable of Channel 2 was discovered in a tripped condition. The bistable was replaced. The Surveillance Procedure was satisfactorily performed.

### PLANT PERFORMANCE

#### 1. Pre-Event

Crystal River Unit 3 was operating at 97% power while generating 865 MWe. All Engineered Safeguards equipment was operable with the exception of the "B" Decay Heat Pump Discharge Valve which was tagged out for modification. Technicians were performing a Channel Functional Test of the Engineered Safeguards System.

#### 2. Initiating Event

Channel 3 of the "B" train of Engineered Safeguards was in the tripped condition due to the channel functional test. The Channel 2 Low Pressure Injection bistable failed to the tripped condition which completed the "2 out of 3" logic to actuate the "B" train of Low Pressure Injection and High Pressure Injection systems.

#### 3. Post Event

With the exception of the "B" Decay Heat Pump Discharge Valve (inoperable for modification), all affected Engineered Safeguards equipment actuated properly. Plant operators responded quickly, evaluated the actuation as false, terminated the Engineered Safeguards actuation, and stabilized the plant.

### CORRECTIVE ACTIONS

During an inspection of the Engineered Safeguards instrumentation following the event, technicians discovered the failure of the bistable by noting improper status lights on the bistable. The Low Pressure Injection bistable was replaced. The replacement bistable was tested satisfactorily.

The failure was not reproducible during a bench test of the failed bistable. This type of bistable uses mercury-wetted relays. Because any physical movement of these relays tends to recoat the contacts, it makes it difficult to reproduce this type of failure.

ACCUMULATED ACTUATION CYCLES

<u>Transient</u>	<u>MUV-42</u>	<u>MUV-43</u>	<u>MUV-36</u>	<u>MUV-37</u>
ES Actuation (Expected)	2	2	2	2
ES Actuation (Inadvertent)	5	5	5	5
ES Actuation (Test)	15	15	15	15