See attached Supplementary Information tit PHONE (813) 866-4159 P. Stewart NAME:

SUPPLEMENTARY INFORMATION

1. Report No.: 50-302/77-52

2. Facility: Crystal River Unit #3

3. Report Date: 20 June 1977

4. Occurrence Date 14 June 1977

5. Identification of Occurrence:

Possible unreviewed safety question as defined by 10 CFR50.59(b) concerning unterminated sodium hydroxide dilution of Reactor Coolant System.

6. Conditions Prior to Occurrence:

NA as event has not occurred to this date.

7. Description of Occurrence:

As reported on 1 March 1977 (LER 77-1") approximately 600 gallons of NaOH was introducted into the Reactor colant System via the Decay Heat Removal System. Subsequent to this event, an evaluation by Babcock and Wilcox, concerning the unterminated injection of the entire contents of the sodium hydroxide tank into the Reactor Coolant System, reveals that the possibility of this occurrence may constitute an unreviewed safety question. The results of this evaluation indicate that a situation could exist where an unterminated moderator dilution accident could occur that is not bounded by the CR-3 FSAR Chapter 14 analysis.

8. Designation of Apparent Cause:

The injection of the entire NaOH tank contents into the RCS as described in the B&W evaluation could cause the core to go critical.

9. Analysis of Occurrence:

Should this event ever occur, there is the possibility of the Reactor going critical with all rods inserted.

10. Corrective Action:

Precluding an occurrence of this nature includes the following administratively imposed safeguards:

- A. Closing manual isolation valves in the NaOH supply lines and "racking out" the breakers to the motor operated isolation valves in the NaOH supply lines before starting a DH pump.
- B. Verifying manual isolation valves are closed before testing the motor operated valves in the NaOH supply lines.
- C. Only testing the motor operated valves at a refueling interval.

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Corrective Action (Cont'd)

Florida Power Corporation is presently evaluating the chemical additive system for CR #3 to determine what permanent modifications are required as a result of eliminating the sodium thiosulfate from the system. This evaluation is being performed in accordance with Condition 2.C(4) of Amendment No. 1 to the CR #3 Operating License and will be submitted to the Commission for review and approval on or before September 3, 1977. It is our intent to include this unreviewed safety question as part of our overall evaluation of the Chemical Additive System. Appropriate revisions to the CR #3 FSAR will be submitted to the Commission following the completion of our evaluation.