

**Florida
Power**
CORPORATION
Crystal River Unit 3
Docket No. 80-382

February 27, 1995
3F0295-08

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Subject: Service Water System Operational Performance Assessment Final Report

References: A. NRC to FPC letter, 3N0794-04, dated July 8, 1994
B. FPC to NRC letter, 3F0195-01, dated January 18, 1995

Gentlemen:

Florida Power Corporation (FPC) is submitting the attached report which describes the results of the Service Water System Operational Performance Assessment (SWSOPA) performed at Crystal River Unit 3 (CR-3) from October 3, 1994 through November 10, 1994. This submittal satisfies the NRC request in Reference A.

The objectives of the assessment were to:

- Verify that the Nuclear Service & Decay Heat Sea Water (RW) System, Nuclear Service Closed Cycle Cooling (SW) System, and the Decay Heat Closed Cycle Cooling (DC) System are capable of fulfilling their thermal and hydraulic performance requirements and are operated consistent with their design bases.
- Assess the RW, DC, and SW operational controls, maintenance, surveillance, testing, and personnel training to ensure the systems are operated and maintained so as to remain capable of performing their safety-related functions.
- Assess the planned and completed actions in response to Generic Letter 89-13.

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The assessment was performed under the leadership of FPC's Nuclear Engineering & Projects Department. Personnel from Nuclear Operations Engineering, Site Nuclear Engineering Services, Nuclear Configuration Management, Three Mile Island System Engineering, EPRI (Heat Exchanger representative), and two consultants were used to perform this task. This assured that there was a broad base of design, operations, maintenance, training, chemistry, and assessment experience on the assessment team.

The self-assessment conclusions were:

The entire scope of the self-assessment, established to meet the three objectives above, was completed as planned. It is noted however, that the magnitude of the effort was larger and more complex than originally anticipated. This can be attributed to the fact that this was FPC's first self-assessment using an NRC "Temporary Instruction."

Some of the commitments in the original response to Generic Letter 89-13 and the more recent revision to it, had not been completed at the time of the self-assessment.

The assessment team concluded during the time of the review, that the systems evaluated were operable. This conclusion was based upon the fact that the RW pits were cleaned during the last outage and the following restrictions were put in place: the Gulf water temperature is and should remain below 85F for the near term and if any SW heat exchanger is found to be more than 25% blocked, both it and another SW heat exchanger will be cleaned promptly. The restrictions were necessary since no documented criteria for determining allowable tube pluggage to assess system operability existed prior to this SWSOPA. The restrictions were expected to assure operability until engineering calculations could be revised. These engineering calculations were revised in January 1995 to provide acceptance criteria for heat exchanger operability with varying ultimate heat sink temperature and tube blockage.

With the exception of FPC not having a sufficient technical basis for cleaning the heat exchangers and better flow balancing, the operations and maintenance of the SW, DC, and RW Systems were found to be adequate. The training was also found to be adequate.

Four areas were identified as requiring additional management attention with regard to service water systems:

- Technical documentation of design bases to support operability determinations

- Enhanced awareness of the impact of failures on overall system ability to handle design basis accidents

Operability & reportability determination process

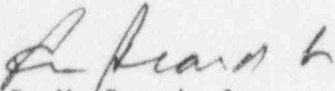
Generic Letter 89-13 commitments

As indicated in Reference B, key FPC managers are involved in both the overall and specific corrective action activities. This Management Response Team has assigned action items to the appropriate managers and monitors the actions that are a result of the assignments. The team will also review additional subjects as they arise and make corrective action assignments as necessary. The team will also provide the direction for the preparation and the followup NRC inspection.

The detailed report is attached. It contains a discussion of each area reviewed by the Assessment Team and resulting Management Response Team actions items to resolve the particular issues.

FPC is confident that processes are in place which will continue to assure that these cooling water systems remain operable for the long term.

Sincerely,



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

PMB/JWT:ff

Attachment

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