Florida
Power
CORPORATION
Crystal River Unit 3
Docket No. 50-302

February 24, 1995
3F0295-07

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

Subject: Additional Information to a Violation Response
NRC Inspection Report No. 50-302/94-22

Reference: NRC to FPC letter, 3N1194-02, dated November 4, 1994
FPC to NRC letter, 3F1294-04, dated December 2, 1994

Dear Sir:

In the referenced letter of December 2, 1994, Florida Power Corporation (FPC) provided our response to a Notice of Violation concerning Emergency Diesel Generator fuel oil testing. Since that time, several additional actions have been taken by FPC's Chemistry and Engineering departments to improve the Diesel Fuel Oil Testing Program. The attached is a summary of those actions.

Sincerely,

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

PMB/RLM:ff

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

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Background.

In September 1994, CR-3 received a shipment of new No. 2 diesel fuel oil (No. 2 DFO) for addition to the Emergency Diesel Generator underground storage tanks (DFT-1A and DFT-1B). After filling the tanks, it was determined the new No. 2 DFO was high in particulates and had contaminated DFT-1A beyond the Technical Specification (TS) limit for particulates (particulates in DFT-1B increased, but not beyond the limit). A vendor was required to filter the two tanks.

Since that time, FPC has been working to improve procedures to strengthen the No. 2 DFO Testing Program, which also includes the Fire Service Diesel Tanks (FST-2A/2B) and the TSC Diesel Tank (MET-1). The following is a brief summary of recent activities.

Affected procedures have been revised to improve No. 2 DFO sampling and testing techniques. This includes:

1. Clarification for notifying Engineering and Operations personnel when test results are unsatisfactory.

2. The volume of No. 2 DFO used in testing for particulates is specified (1 liter) to ensure consistency with test results.

3. The vacuum used during particulate testing is now checked prior to testing. Variations in vacuum during this test has been found to alter results.

The use of dyes in No. 2 DFO has been identified as having an adverse effect on the ability to perform particulate testing.

1. CR-3 Engineering has received information from the Department of Defense (DOD) stating their request for exemption from using blue dye in F-76 Naval Distillate Fuel (No. 2 DFO). The DOD states the dyes can adversely impact on the ability to perform particulate testing.

2. Chemistry personnel have performed particulate testing on No. 2 DFO with blue dyes and No. 2 DFO with red dyes. In both cases, acceptable test results have been obtained, however, the test filter would clog to a point where the No. 2 DFO could no longer pass through the filter (testing requires 1 liter of fuel to pass through the filter; approximately 250 ml is all that can be passed before the filter clogs). This confirms the DOD information.

An amendment has been made to the No. 2 DFO purchase requisition authorizing the use of low sulfur fuel. Low sulfur No. 2 DFO does not contain any dyes that are required (by the Environmental Protection Agency) in non-low sulfur fuels.

1. The Diesel Generator vendor, Coltec Industries, was contacted in regards to using low sulfur No. 2 DFO. There are some concerns due to the lubricity of the low sulfur No. 2 DFO not being the same as high sulfur No. 2 DFO. However, low sulfur No. 2 DFO meets the

requirements of the Fairbanks Morse OP Engine (sulfur content has a maximum limit) and no EDG operational problems due to the use of low sulfur No. 2 DFO are known by Coltec Industries.

2. Others members of the Fairbanks Morse Owner's Group were contacted and low sulfur No. 2 DFO is being used by some members. No effects on EDG operation have been noted by these utilities.

3. Inchscape Testing Services/Caleb Brett (ITS/CB), the off site No. 2 DFO testing vendor, was requested to test the three low sulfur No. 2 DFO tanks at the BP Oil terminal in Tampa for particulates. Particulate results of the three tanks were less than 2 mg/liter, and ITS/CB noted the 1 liter No. 2 DFO test sample filtered quickly through the test filter with minimal effort.

An amendment was made to the off site No. 2 DFO testing contract (with ITS/CB).

1. ITS/CB is to specify the volume of No. 2 DFO used in particulate testing.

2. FPC contacts (Chemistry and Engineering) are provided in the contract and are to be utilized when reporting test results.

3. ITS/CB is to notify FPC immediately if any test result fails to meet specified limits.

Engineering is generating a requisition for the purchase of a portable No. 2 DFO filtration assembly.

The portable unit will enable filtration of new No. 2 DFO shipments during unloading into CR-3 storage tanks. Additionally,the unit will provide the capability for periodic tank filtration to maintain low particulates in No. 2 DFO stored over longer periods.

A new standard for particulate testing of No. 2 DFO is being developed.

An ASTM Subcommittee has recently drafted a new test standard for performing particulate testing of No. 2 DFO. The current test method (ASTM D-2276) is designed for aviation fuels and has caused some of the industry test problems since aviation fuels are much cleaner than No. 2 DFO. Qualification testing of the new test specification is underway, and issuance of the new test method is expected sometime in 1995. FPC is evaluating the possibility of requesting an amendment to the Diesel Fuel Testing Testing Program located in CR-3 Improved Technical Specifications 5.2.C.14c.

Lessons learned from the recent high particulates event have resulted in more accurate and consistent No. 2 DFO testing. This will enhance the reliability of the Emergency Diesel Generators, the Fire Service Diesels, and the Technical Support Center Diesel. In addition, actions taken and planned will result in more flexibility in sources of fuel purchases.