

**Florida
Power**

CORPORATION
Crystal River Unit 3
Docket No. 50-302

March 9, 1992
3F0392-04

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

Subject: Environmental Protection Plan

Dear Sir:

Attached please find a copy of correspondence dated February 26, 1992 to the Environmental Protection Agency concerning a request for approval to discharge waste water containing hydrazine and associated compounds to Crystal River Unit 3's outfall. The submittal of this correspondence to the NRC is required in accordance with the Environmental Protection Plan, Section 3.2.

Sincerely,

P. M. Beard, Jr.

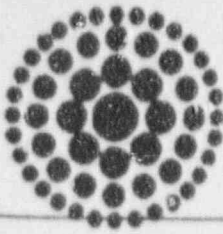
P. M. Beard, Jr.
Senior Vice President
Nuclear Operations

PMB/REF:ff

Attachment

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

Handwritten signature/initials



**Florida
Power**
CORPORATION

February 26, 1992

Ms. Tammy Moore
Permits Section
Facilities Performance Branch
U. S. Environmental Protection Agency
345 Courtland Street N.E.
Atlanta, Georgia 30365

Dear Ms. Shell:

RE: Florida Power Corporation
Crystal River 1,2,3
Flow-through Toxicity Test
NPDES FL0000159

Florida Power Corporation (FPC) plans to discharge wastewater containing hydrazine (and associated compounds) in March or April, 1992. Pursuant to Parts I-6 and V, of the above referenced permit, toxicity tests were performed to determine the concentration of hydrazine (and associated compounds) which causes less than 50% lethality to the test organism, Menidia beryllina. Please find enclosed two copies of the Report of the Results of Range Finding and Ninety-Six Hour Flow-Through Toxicity Tests Conducted October 8 through October 23, 1991.

FPC's contractor conducted several static range finding acute toxicity tests from October 8, 1991 to October 18, 1991. On October 19-23, 1991, a 96-hour flow-through acute toxicity test was conducted using nominal concentrations of: 0.54 mg/l hydrazine, 10.0 mg/l morpholine, 2.0 mg/l ammonia and 2.0 mg/l hydroquinone.

The results of the tests conducted on October 19-23, 1991, indicated that at measured concentrations of 0.34 mg/l of hydrazine, 1.78 mg/l of morpholine, and 0.047 mg/l of ammonia, 70% of the test organisms survived for 96 hours. These results indicate that the concentrations tested and measured in the studies would cause less than 50% lethality to the test organism.

Part I.A.6.B of the above referenced permit allows the discharge of hydrazine, hydroquinone, ammonia and morpholine at concentrations equal to or less than the 0.34 mg/l, 0 mg/l, .047 mg/l and 1.78 mg/l respectively upon approval of the toxicity testing report. The permit requires a grab sample to be taken at OSN 007 or the CD discharge at the beginning of the discharge from any batch potentially containing hydrazine. As required, OSN-007 (SDT-1) will be sampled and analyzed prior to discharge. These concentrations can be evaluated, adjusted and diluted using such measures as tank discharge flow and dilution to determine the concentrations released at the POD (OSN-006). The operator will be instructed to throttle the flow at OSN-007 (200 gpm maximum flow). The discharge from OSN-007 will immediately mix with the water in the discharge line (which discharges at approximately 10,000 gpm) to result in a dilution of at least 50:1 at the POD (OSN-006). See Attachment 1.

In accordance with Part 1 A.6.B - Footnote 3, the results of the dye dilution tests performed to verify that the maximum concentration of hydrazine (and associated compounds) cannot exceed 6% of the concentration in the undiluted waste source. The results indicate that the dilution is actually approximately 53:1, yielding a 2% concentration of the wastewater in the dilution stream. See Attachment 2.

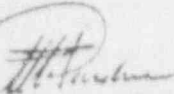
FPC proposes the following hydrazine release:

POD LIMITS: .34 ppm hydrazine
 1.78 ppm morpholine
 0.047 ppm ammonia

The SDT-1 (neutralization tank, OSN-007) will contain hydrazine and associated compounds which will be determined by analysis and calculation. The concentration of compounds will be adjusted in the neutralization tank via aeration and verified by analysis. Prior to a planned discharge, the operators will receive an internal procedure to discharge compounds from the SDT-1 tank from the Chemistry Lab. The procedure will specify all required release conditions including maximum release rate from the tank, and maximum dilution flow to ensure compliance with the POD limits established in the permit. Operators will monitor and log flow conditions in accordance with the internal procedure. At the termination of the release, the operator will return the completed log to the Chemistry Lab. Actual release concentrations will be calculated based on the concentrations analyzed at OSN-007 and the flow conditions.

FPC requests approval to discharge wastewater at outfall (OSN-006) containing hydrazine, morpholine, ammonia and ammonium at concentrations which do not exceed 0.34 mg/l of hydrazine, 1.78 mg/l of morpholine and .047 mg/l of ammonia using the above mentioned methods. If you have any questions or need additional information please contact Ms. Manita Moultrie at (813) 866-4667.

Sincerely,



W. Jeffrey Pardue, Manager
Environmental Programs

cc: Mr. Robert Vanderslice, FDER, Tampa

(DISCHARGE FLOW PATH FROM SECONDARY PLANT)