



**Florida
Power**
CORPORATION

March 17, 1988
3F0388-11

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

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DFR-72
NUREG 0737, Item III.D.3.4
Control Room Habitability
Removal of Ammonia Detectors

Dear Sir:

A calculation package was prepared to evaluate the continued need for the CR-3 Control Complex Ammonia detectors. These documents were used to determine the maximum concentrations which would be present in the control room in the event of a complete rupture of an 8500 pound capacity tank located at Crystal River Units 4 and 5.

The analysis took appropriate credit for the buoyancy. The resulting height of the plume rise is a function of wind speed and distance between the source and receptor. In the evaluation, wind speeds were varied from 1m/sec. - 7m/sec. As wind increases, the plume rise is less. However, as the wind speed increases, the gas cloud becomes more diffused with resulting lower gas concentrations. The peak concentration is expected to be between 5.1 mg/m³ and 12.4 mg/m³. The protective action limit, as given in Regulatory Guide 1.78 is 70 mg/m³. Therefore, the peak Control Complex concentrations are well within the protective action limits without Control Complex isolation.

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Therefore, FPC is removing the Ammonia detectors and expects to submit a technical specification change with supporting analysis to you by April 29, 1988.

Sincerely,

Ken Wilson

K. R. Wilson, Manager
Nuclear Operations Licensing

EMG/mm

cc: Dr. J. Nelson Grace
Regional Administrator, Region II

Mr. T. F. Stetka
Senior Resident Inspector