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**Florida  
Power**  
CORPORATION

March 1, 1985  
3F0385-02

Dr. J. Nelson Grace  
Regional Administrator, Region II  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
101 Marietta Street N.W., Suite 2900  
Atlanta, GA 30323

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
IE Inspection Report No. 84-33

Dear Sir:

Florida Power Corporation provides the attached as our response to the subject inspection report.

Sincerely,

G. R. Westafer  
Manager, Nuclear Operations  
Licensing and Fuel Management

AEF/feb

Attachment

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**FLORIDA POWER CORPORATION  
RESPONSE  
INSPECTION REPORT 84-33**

**VIOLATION 84-33-01**

Technical Specification (TS) 3.7.13.5 requires the oxygen concentration in any waste gas decay tank (WGDT) to be less than 2% by volume whenever the concentration of hydrogen in that WGDT is greater than or equal to 4% by volume.

Action statement b for this TS requires whenever both the concentration of hydrogen and oxygen are each greater than or equal to 4% by volume in a WGDT, that waste gas additions to this tank be suspended and that the oxygen concentration be reduced to within its limit.

Contrary to the above, during the period from 3:30 a.m. on December 13, 1984, through 8:25 a.m. on December 14, 1984, WGDTs B, C and A exceeded the 4% hydrogen and oxygen limits and waste gas additions to these tanks were not suspended.

This is a Severity Level IV violation (Supplement I).

**RESPONSE:**

The Florida Power Corporation (FPC) denies the violation for the reasons set forth below. FPC recognized, shortly following the implementation of the new Radiological Effluent Technical Specifications on July 1, 1984, that we would not be able to comply with the actions of TS 3.7.13.5.b using normal system configuration of the waste gas system. A telephone conversation was held between FPC and the NRC on July 10, 1984, and the following was resolved:

Question: Technical Specification 3.7.13.5 - Action (b) requires immediate suspension of waste gas addition to a tank and immediate reduction in oxygen concentration when hydrogen and oxygen concentrations are greater than 4%. Our system reduces explosive gas concentration by addition of nitrogen through the waste gas header. This method of nitrogen addition also introduces the small amount of waste gas which is in the header to the WGDT. Is this acceptable?

Response: Adding dilution nitrogen through the waste gas header is acceptable.

Copies of the summary of this telephone conversation were provided to the Region II Senior Resident Inspector and the NRR Project Manager for Crystal River Unit 3. Technical staff from both NRR and Region II also received copies of the summary.

Florida Power Corporation was utilizing dilution nitrogen to reduce the concentration of hydrogen and oxygen in the WGDT's throughout the entire sequence of events involving high oxygen and hydrogen concentration. Based upon the fact that the evolutions were constantly being followed by both the Operations and Chemistry departments, the reduction of hydrogen and oxygen was "timely" and, we were within the guidelines of the aforementioned telephone conversation.

Methods have since been developed to reduce the explosive mixture within the WGDs that do not involve the usage of the waste gas header. However, these methods do not involve normal system configurations, and will only reduce the concentration within the WGDs. They will not alleviate the explosive concentrations within the remainder of the waste gas system. The method by which dilution nitrogen is being added to the system is the preferable resolution, since it removes the explosive mixture from the entire system and, in effect, reduces the time that the limits are exceeded.

Additionally, the second paragraph stated in the above violation should be corrected to be consistent with Technical Specification 3.7.13.5. It should read as follows: ". . . that waste gas additions to this tank be suspended and that the oxygen concentration begin to be reduced to within its limits." The words "begin to" were left out of the above paragraph.