

# Florida Power

CORPORATION

Crystal River Unit 3  
Docket No. 50-302

September 22, 1995  
3F0995-11

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

Subject: Chemical Testing and Flame Spread Characteristics of Thermo-Lag 330  
Fire Barrier Material

Reference: A. NRC to FPC letter, 3N1294-20, dated December 28, 1994  
B. NRC to FPC letter, 3N0595-06, dated May 12, 1995  
C. FPC to NRC letter, 3F0395-25, dated March 28, 1995  
D. FPC to NRC letter, 3F0795-02, dated July 6, 1995

Dear Sir:

In References A and B, the NRC requested information on the chemical composition of the Thermo-Lag fire barrier materials installed at the Florida Power Corporation (FPC, Crystal River Unit 3 (CR-3) site. In References C and D, FPC reported that we were participating with numerous other utilities in a chemical testing program coordinated by the Nuclear Energy Institute (NEI). FPC contributed 8 samples of Thermo-Lag material to the program.

The program consisted of pyrolysis gas chromatography evaluation of 169 samples from the participating utilities to assess organic composition, and energy dispersive x-ray spectroscopy of 33 samples to assess inorganic chemical composition. The sample population consisted of materials manufactured between 1982 and 1995. On the basis of the above tests, the test lab, NUCON International, Inc., concluded that all samples contained the constituents identified by Thermal Science Inc., as essential to fire barrier performance. NUCON also determined that the composition of the sample population was consistent. A copy of the summary report from NUCON is being provided to the NRC by NEI.

200024  
CRYSTAL RIVER ENERGY COMPLEX: 15760 W. Power Line Street • Crystal River, Florida 34428-6708 • (904) 795-6486  
A Florida Progress Company

9509290114 950922  
PDR ADDCK 05000302  
P PDR

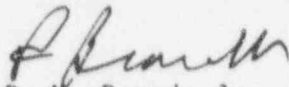
AD29

The FPC samples were consistent with the other utility samples. The summary pages of the NUCON reports for FPC samples are contained in Attachment 1, however the Figures and Tables referenced by NUCON that contain technical details are not included. FPC believes that the high degree of chemical consistency exhibited, adequately demonstrates that our materials are equivalent to materials tested in the industry fire endurance tests. The consistent chemical test results from the broad population of Thermo-Lag represented also validates our position that 8 samples from CR-3 is sufficient. FPC does not plan to conduct any additional chemical composition testing.

Regarding the combustibility and flame spread characteristics of Thermo-Lag materials, FPC will apply the information contained in Reference D, Attachment 2, in the section entitled "Combustibility and Flame Spread of Thermo-Lag in the Hazard Tool." This information will be used in modeling fire hazards in areas where we believe exemptions from Appendix R are justified, and will be used to update the CR-3 Fire Hazards Analysis.

Please contact W. L. Rossfeld at (904) 563-4374 if you have any questions concerning this letter.

Sincerely,



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

PMB/SCP:ff

Attachments

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

**ATTACHMENT 1**

Summary Pages from NUCON International, Inc. Test Reports  
of Crystal River Unit 3 Thermo-Lag Chemical Composition Samples