UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEBRUARY 25 1980

Docket Nos. 50-250
and 50-251

Dr. Robert E. Uhrig, Vice President
Advanced Systems and Technology
Florida Power and Light Company
Post Office Box 529100
Miami, Florida 33152

Dear Dr. Uhrig:

During the last several years, data have begun to indicate that the fission gas release rate from LWR fuel pellets is increased (enhanced) with burnup. Many of the current fuel performance analyses do not consider the impact of burnup-enhanced release on safety. By letters dated November 23, 1976, the NRC staff requested all LWR licensees to assess the higher fission gas release for fuel burnups above 20,000 Megawatt-day per metric ton (MWD/t).

Also, by NRC staff letter dated January 18, 1978, all U. S. LWR fuel suppliers were requested to revise their fuel performance analyses to include the enhancement of fission gas release at higher burnups.

All responses to the November 23, 1976 letters have been reviewed. We have concluded that no immediate licensing action is required for operating reactors. This conclusion is valid for typical reported LWR fuel bundle and batch burnups. Any extension of these burnups or other factors which significantly affect fission gas release, LOCA PCT or fuel rod internal pressure is outside the scope of the conclusion.

Westinghouse was the only fuel supplier calculating that the increased release would cause internal fuel rod pressure to exceed coolant system pressure. The staff has approved revised design criteria which allow internal rod pressures greater than system pressure. The staff is also completing the review of a Westinghouse revised fuel performance code. The staff, in evaluating reloads, has been requesting licensees using Westinghouse fuel to quantify the burnup when the newly approved design criteria will be violated. In the reloads evaluated thus far, there appears to be a significant burnup margin to the newly approved evaluated design criteria to compensate for modifications which may result from the staff's review of the Westinghouse revised fuel performance code.

Inasmuch as you and/or the staff will be evaluating all future reloads against fuel vendors' revised fuel performance codes which provide for increase in fission gas release at higher burnups, we consider this a satisfactory resolution of this concern.

Sincerely,

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

cc: See next page

Robert E. Uhrig
Florida Power and Light Company

FEBRUARY 2 5 1980

cc: Mr. Robert Lowenstein, Esquire
Lowenstein, Newman, Reis and Axelrad
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