



Rensselaer

Department of Nuclear Engineering & Engineering Physics

50-225

June 11, 1990

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

Dear Sirs:

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Please modify Facility License No. CX-22, Docket No. 50-225, to possess up to 1200 SPERT(F1) fuel pins, from the presently permitted 600 such fuel pins. The 600 additional fuel pins are required for further experiments, particularly those involving low density moderator.

The Fuel Vault at the Rensselaer Polytechnic Institute (RPI) Reactor Critical Facility (RCF) contains 42 Fuel Storage Tubes to which will be added 39 more for a total of 81 Fuel Storage Tubes. Each Fuel Storage Tube is licensed to hold up to 15 SPERT(F1) fuel pins, so that $81 \times 15 = 1215$ SPERT(F1) fuel pins can be stored. The calculations which demonstrated criticality safety assumed an infinite array of Fuel Storage Tubes, so the change from 42 to 81 such tubes is not significant in this regard. The increase of weight to about 1000 kg of SPERT(F1) fuel is not significant because about 1000 kg of plate type fuel was stored in the fuel rack until 1975.

Sincerely,

Dr. Donald R. Harris, Director
RPI Reactor Critical Facility (RCF)

DRH:jjd

cc: Theodore S. Michaels, USNRC
Robert C. Block, Dept. Head (RPI)
Arthur E. Bergles, Dean, School of Engrg. (RPI)
Gary Judd, Vice Provost (RPI)
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