## THE PENNSYLVANIA STATE UNIVERSITY

207 OLD MAIN BUILDING UNIVERSITY PARK, PENNSYLVANIA 16802

Vice President for Research and Graduate Studies

October 18, 1982

Area Code 814 865-6332

U.S. Nuclear Regulatory Commission Uranium Fuel Licensing Branch Division of Fuel Cycle and Material Safety Washington, D.C. 20555

> Ref. Docket 70-113 License SNM-95

Gentlemen:

The Pennsylvania State University requests an amendment to special nuclear material license SNM-95 to allow the use of uranium dioxide fuel pellets enriched in U-235 in subcritical experiments with the Penn State Breazeale Reactor (PSBR). The UO2 is to be obtained by disassembling several Pathfinder Superheat Fuel Elements, item 6.C of license SNM-5. The UO2 pellets are to be sealed in small aluminum tubes, and these tubes will be used to construct a fuel element of the same dimensions as the standard TRIGA fuel element.

The purpose of the experiment is to determine the fuel and poison distribution in a simulated damaged reactor core. An explanation of the experiment, including the procedure for transporting the Pathfinder elements from the storage vault to the PSBR and the fabrication of the new fuel containers, is included as Attachment 1 to this application.

A separate request for amendment is being made to change the Technical Specifications of the PSBR (Reactor License R-2, Docket 50-5) to allow the use of tel other than TRIGA elements in the reactor core. A copy of this request is included as Attachment 2 to this application.

Thank you for your prompt attention to this matter and do not hesitate to contact this office if you require any further information.

Sincerely,

Richard G. Cunningham

Vice President for Research and Graduate Studies

enc. Attachment 1 Attachment 2

cc: W. W. Pratt

S. H. Levine

R. W. Granlund

W. F. Witzig