SCHOOL OF
ENGINEERING
& APPLIED SCIENCE

DEPARTMENT OF NUCLEAR ENGINEERING
& ENGINEERING PHYSICS

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March 18, 1992

Director of the Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: University of Virginia's 2 MWth UVAR reactor,
Facility License R-66, Docket No. 50-62,
Annually Updated Fuel Conversion Schedule.

Gentlemen:

Every year at about this time, in order to meet the requirements of 10 CFR 50.64(c)(2), the University of Virginia Reactor Facility staff submits to the NRC an update of the HEU to LEU Conversion Schedule. In attachment, please find a tentative schedule based on the best information available to us at this date.

In early 1990, the U.Va. Reactor Facility received verbal communication from EG&G's Idaho office that LEU fuel elements for the UVAR reactor would be manufactured only after September or October of 1991, due to budgetary constraints. However, this projected date slipped considerably. Consultations with personnel at the fuel manufacturer, the Babcock and Wilcox company in Lynchburg, Va., revealed that B&W delivered a fuel manufacturing proposal for the manufacture of the UVAR LEU core to EG&G Idaho on December 6, 1991. Persistent attempts to communicate with personnel at EG&G responsible for the contract management were unsuccessful. For that reason, the probable date for the signing of this contract is not available. The manufacturer's representative stated that it would take about one year from the date of contract signing for the delivery of fuel to be possible. This information was used in the updating of the conversion schedule.

The delay in the conversion will not affect reactor operations significantly, for sufficient HEU fuel elements remain onsite and in storage at B&W, Lynchburg, VA.. However, U.VA. has communicated to EG&G by letter its great interest in proceeding with the conversion as soon as possible. This would permit a detailed core characterization to be made, which is needed for eventual high-fluence/long-term material irradiation studies.

The date of conversion to LEU fuel is projected now for the beginning of 1993. It is noted that this date is tentative and subject to the availability of a suitable spent-fuel shipping cask for offsite shipment of all HEU fuel. It also depends still on there being no further delays in the manufacture of the first UVAR LEU core.

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(Conversion Schedule, page 2)

As the conversion date draws closer, the U.Va. reactor staff will maintain ever closer contracts with the NRC, to coordinate a date for the issuance of an Order to Convert that is mutually agreeable. This order should be issued only when it is certain that U.Va.'s HEU fuel can be shipped. It is hoped that a period for simultaneous possession of both LEU and HEU fuel can be avoided, to preclude security ramifications due to excessive decay of fission products.

Sincerely,

Robert U. Mulder, Director
U.Va. Nuclear Reactor Facility

City/County of Albemarle
Commonwealth of Virginia

I hereby certify that the attached document is a true and exact copy of a Letter (type of document), presented before me this 18th day of March, 1992, by Robert Mulder (name of person seeking acknowledgement).

Notary Public

My commission expires 2/28, 1994.

cc: US NRC Document Control Desk, Washington D.C.
Mr. Alexander Adams, NRC Project Manager, Wash. D.C.
Regional Administrator, USNRC Region II, Atlanta, Georgia
Mr. Keith Brown, Div. of University Programs, DOE
Mr. Harry Prebble, Babcock and Wilcox, Lynchburg, Va.
Mr. Anthony J. Vinnola, EG&G Idaho, Great Falls, Id.

ANNUALLY UPDATED

HEU TO LEU FUEL CONVERSION SCHEDULE

FOR THE

UNIVERSITY OF VIRGINIA'S 2MW UVAR REACTOR

Submitted to:

Director of the Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Submitted by:

Robert U. Mulder
Director of U.Va. Reactor Facility
Department of Nuclear Engineering
and
Engineering Physics
University of Virginia
22902

March 1992

UVAR FUEL CONVERSION SCHEDULE

Milestones	Dates*
Availability of DOE conversion study funds	September 86
EG&G's New Fuel Element Drawing Approved by U.Va.	November 89
Submittal to the NRC of UVAR LEU SAR with an application to convert to LEU Fuel, by U.Va.	November 89
Submittal to the NRC of Response to NRC's Follow-up Questionnaire re: UVAR LEU SAR, by U.Va.	February 91
Fitting of Dummy LEU Element(s) in UVAR core gridplate	July 91
Notification Sent to NRC by U.Va. of UVAR LEU fuel availability	November 91
Issuance of NRC's "Order of Convert"	A (March 1993)?
Several HEU Spent Fuel Shipments by U.Va. to Savannah River	A + 1 mo.
Completion of HEU Fuel Shipments and Receipt of fresh LEU core	A + 2 mo.
Expected UVAR reactor downtime	1 mo.
Loading of LEU fuel in UVAR core	A + 2 mo.
Completion of Tech. Spec. required first LEU core parameter tests	A + 3 mo.
Report to NRC of UVAR LEU first core parameters, as per TS and SOP's	A + 12 mo.

A = Date of NRC's Order to Convert; this date is expected to be selected based both on the date of LEU fuel availability <u>and</u> the availability of a suitable spent-fuel shipping cask.

* If, despite best efforts, the milestones can't be met as indicated in this schedule, then the conversion of the UVAR will be delayed accordingly, and a revised schedule submitted to the NRC.