UNIVERSITY OF VIRGINIA
NUCLEAR REACTOR FACILITY

U.S. MAIL ADDRESS
P.O. Box 400322
Charlottesville, VA
22904-4322

STREET ADDRESS
675 Old Reservoir Road
Charlottesville, VA 22903
Telephone: 434-982-5440
Fax: 434-982-5473

December 19, 2001

Mr. Alexander Adams, Jr., Senior Project Manager
Events Assessment, Generic Communications and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
11555 Rockville Pike, One White Flint North
Mail Stop O12-D1
Rockville, MD 20852-2738

Subject: Amendment to License Amendment Request of September 17, 2001 deleting the current Physical Security Plan in its Entirety from Licenses R-66, Docket 50-62 (University of Virginia Reactor, UVAR) and R-123, Docket 50-396 (CAVALIER).

Dear Mr. Adams,

The University of Virginia requested on September 17, 2001 that the UVAR/CAVALIER Physical Security Plan, dated July 1980, and part of both of reactor licenses (R-66 and R-123), be deleted in its entirety. As per a phone conversation with you, we now amend that request by asking for a reduction in the amounts of special nuclear material the Facility is authorized to possess. This requested change ensures that the University of Virginia will not possess greater than a "low strategic significance" quantity of special nuclear material as defined in 10CFR73.

The License R-66 for the University of Virginia Reactor (UVAR) currently reads:

II.B.(2) Pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," the maximum U-235 possession limits are as follows:

Maximum U-235 Kilograms	% Enrichment	Form
4	<20%	Materials testing reactor (MTR)-type fuel
1	Any	Fission chambers, flux foils, and other forms used in connection with the reactor

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and the License R-123 for the CAVALIER reactor currently reads:

2.B.(2) Pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," to receive, possess and use up to 3.6 kilograms of uranium-235 and 16 grams of plutonium in a sealed plutonium-beryllium neutron source in connection with operation of the reactor; and.....

The University of Virginia requests these license sections be updated as follows:

Proposed License R-66 amendment for the University of Virginia Reactor (UVAR):

II.B.(2) Pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," the maximum U-235 possession limits are as follows:

Maximum U-235 Kilograms	% Enrichment	Form
0.4	>20%	Chambers, foils, plates, powders and other forms
0.1	≤20%	Foils, powders and other forms

Proposed License R-123 amendment for the CAVALIER reactor:

2.B.(2) Pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," the University of Virginia shall not be authorized to possess any special nuclear material in conjunction with its R-123 license for the CAVALIER reactor.

Justification for Amendment Request

The University currently possesses approximately 283 grams of special nuclear material that is enriched to greater than 20% in the uranium-235 isotope and 144 grams of plutonium in sealed PuBe sources. This amount of special nuclear material meets the 10CFR73.2 definition of having a "low strategic significance". To cover the amount of uranium currently possessed on the R-66 license, a limit of no more than 400 grams of uranium enriched to greater than 20% in the U-235 and no more than 100 grams of uranium enriched to 20% or less in the U-235 isotope is justified..

Special nuclear material needs not be possessed on the CAVALIER license, therefore the amount listed in the R-123 license can and should be reduced to zero.

All plutonium, in the form of plutonium-beryllium neutron sources, is currently possessed on the University of Virginia Broad Radioactive Materials License, 45-00034-26, and is limited to 160 grams of plutonium. Thus, no allowance for this material need be made on either the R-66 or R-123 licenses.

For information purposes, the applicable definitions in 10CFR73.2 are attached.

Sincerely,

Robert U. Mulder, Director
University of Virginia Reactor Facility

cc: Craig Bassett
USNRC, Region II
61 Forsyth St., Suite 23T85 NW
Atlanta, GA 30323

City/County of Albemarle
Commonwealth of Virginia

I hereby certify that the attached document is a true and correct copy of a letter (type of document) presented before me this 19th day of December 2001 by Robert Mulder (name of person seeking acknowledgment).

Tochie L Thomas
Notary Public

My commission expires 2/28 2002

ATTACHMENT 1

10CFR 73.2 states:

Special nuclear material of low strategic significance means:
(1) Less than an amount of special nuclear material of moderate strategic significance as defined in paragraph (1) of the definition of strategic nuclear material of moderate strategic significance in this section, but more than 15 grams of uranium-235 (contained in uranium enriched to 20 percent or more in U-235 isotope) or 15 grams of uranium-233 or 15 grams of plutonium or the combination of 15 grams when computed by the equation, grams = (grams contained U-235) + (grams plutonium) + (grams U-233); or
(2) Less than 10,000 grams but more than 1,000 grams of uranium-235 (contained in uranium enriched to 10 percent or more but less than 20 percent in the U-235 isotope); or
(3) 10,000 grams or more of uranium-235 (contained in uranium enriched above natural but less than 10 percent in the U-235 isotope).

and

Special nuclear material of moderate strategic significance means:
(1) Less than a formula quantity of strategic special nuclear material but more than 1,000 grams of uranium-235 (contained in uranium enriched to 20 percent or more in the U-235 isotope) or more than 500 grams of uranium-233 or plutonium, or in a combined quantity of more than 1,000 grams when computed by the equation, grams = (grams contained U-235) + 2 (grams U-233 + grams plutonium); or
(2) 10,000 grams or more of uranium-235 (contained in uranium enriched to 10 percent or more but less than 20 percent in the U-235 isotope)