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Standardization and Non-Power Reactor Project Directorate
Division of Reactor Projects III, IV, V and Special Projects
Office of Nuclear Reactor Regulations
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Proposed Modification to Reactor License R-94, and
to MCZPR Technical Specifications

Dear Mr. Michaels:

I am following up on our recent conversation to propose the following modifications be made to license R-94 for the Manhattan College Zero Power Reactor (MCZPR) and to the Reactor's Technical Specifications.

Proposed Modification to Reactor License R-94

Before the conversion of the MCZPR fuel from High Enriched Uranium (HEU) to Low Enriched Uranium (LEU) reactor license R-94 did not refer to the enrichment in specifying the possession limit of U-235. When the license was amended to reference the new LEU fuel, the condition "at enrichments equal to or less than 20%" was added to the possession limit. We recently recognized however, that the MCZPR facility has additional small quantities of HEU, in the form of ten 93% foils and fission chambers that were donated to the College, that are currently not covered by the license.

It is therefore requested that the following revision be made to Section 2B(2) to license R-94 to cover the HEU in the foils and fission chambers.

Pursuant to the Act and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," to receive, possess, and use up to 3.9 kilograms of contained uranium 235 at enrichments equal to or less than 20% and up to 10 grams of contained uranium 235 at

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greater than 20% enrichment* in connection with operation of the reactor and up to 16 grams of plutonium encapsulated as a plutonium-beryllium neutron source for use in reactor startup.

Proposed Modification to MCZPR Technical Specifications

Because of changes in departmental office locations to a building directly across from the Leo Engineering building that houses the MCZPR and class scheduling conflicts, it is difficult for the licensed Senior Reactor Operator to be present in the control room at all times the reactor is being operated. Further, the inherent safety of the Reactor, taken with the ease by which the Reactor can be manually scrammed, makes it feasible to readily train one or more non-licensed people in the control room to manually scram the Reactor should the licensed Reactor Operator always present in the control room during operation be otherwise occupied or disabled.

It is therefore requested that the following revision be made to section 6.1.3(1) of the Technical Specifications:


The minimum staffing when the reactor is not secured shall be:

- a. A licensed Reactor Operator in the control room.
- b. One other person in the reactor room certified by the Reactor Supervisor as qualified to activate manual scram and initiate emergency procedures.*
- c. A licensed Senior Reactor Operator contactable by phone and available within thirty minutes.*
- d. A health physics-qualified individual contactable by phone.

* All proposed revisions are underlined.

Please contact me if further elaboration on the above is required.

Sincerely,



William P. Duggan
Reactor Administrator