Department of Nuclear Engineering and Engineering Physics
University of Wisconsin

153 Engineering Research Building
1500 Johnson Drive
Madison, WI 53706-1687
Phone (608) 263-1646
Fax (608) 262-6707

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June 28, 1993

Ivan Selin, Commissioner and Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Selin:

I am writing as Chair of a nuclear engineering department operating a nuclear reactor to express my concern with the recent decision of the NRC to eliminate the license fee exemption for universities operating nuclear reactors for education and academic research. This decision will adversely affect many university reactors and will probably force many of them to close.

I first learned of the NRC action at the June 20, 1993 meeting of the Nuclear Engineering Department Heads Organization (NEDHO). Prof. William Vernetson, Chairman of the Organization of Test, Training, and Research Reactors (TRTR) reported that there was a notice in the Federal Register, dated April 19, 1993, reporting a possible change in the fee exemption policy and asking for comments by July 19, 1993. Vernetson stated that TRTR was preparing a response to be submitted by the July 19, 1993 deadline. He also reported that he had recently learned of a second notice (Federal Register, April 23, 1993) also concerning the license fee exemptions for universities and that the comment deadline for this notice had already passed (May 24, 1993). Furthermore, the NRC Commission had already made the decision referred to above. This second notice stated that the NRC intended to continue the license fee exemption for universities but asked for comments. I understand that there were few comments received from universities, but this is understandable since the NRC appeared to be continuing the present policy. However, the action of the Commission was the opposite of the stated intention and eliminated the exemption. In any event, I did not learn of any of this until the NEDHO meeting on June 20, 1993.

It was reported in the Federal Register that the license fee will be about $65,000 per year. The financial reality of university reactors is that most of them have operating budgets of less than $200,000. For example, at Wisconsin our budget for the reactor (a 1 MW Triga reactor) is about $175,000. About 85% of this is for salaries for the reactor staff. Our current annual income is less than $20,000, which is derived from providing services to other on-campus research projects and from the DOE Reactor Sharing Program. The remainder of the costs are provided by the university. The proposed license fee of $65,000 represents a 35% increase in the cost of operating our reactor.

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Because of the way the university is structured, we have no possibility for generating additional tuition or income to cover the increased cost. I believe that there will be pressure from the university administration to close the reactor facility to reduce costs, and I expect that the same thing will happen at many other universities Given the present financial condition of universities, most of them cannot easily absorb this cost. Some universities may use this as a basis for phasing out their nuclear engineering programs.

University reactors are an important element of nuclear engineering education. They are a valuable tool in preparing well-trained nuclear engineers for nuclear utilities, reactor fuel and equipment vendors, DOE, NRC, national laboratories, and companies associated with the disposal of nuclear wastes, among others. Our reactor, for example, is the basis for two required laboratory courses and one elective course in the nuclear engineering undergraduate curriculum and a required course in the health physics curriculum. It provides hands-on experience in the areas of reactor operations, control and dynamics, nuclear instrumentation and measurements, as well as a source of neutrons for isotope production, radiography, and neutron activation analysis. The 1988 study of the National Academy of Sciences affirmed the role of nuclear reactors in the education of nuclear engineers and health physicists and in supporting academic research in a large variety of disciplines, from anthropology to zoology.

In addition to their role in nuclear engineering and health physics education, university reactors support education in nuclear science at junior high schools, high schools, and other colleges through the DOE University Reactor Sharing Program. At Wisconsin, we provided in the last year reactor access to 14 schools and colleges not associated with the UW-Madison; this involved 31 teachers and 612 students from these schools. In addition, our student chapter of the American Nuclear Society uses the reactor in its outreach program to schools and other groups to increase the public knowledge about nuclear science and technology; this included tours of the reactor for the public and school groups and atomic energy merit badges for scouting groups.

It is clearly in the national interest to have strong nuclear engineering education programs, which produce well-qualified nuclear engineers for the utilities operating the nation's nuclear reactors. Maintaining reactors at universities is an important ingredient in that process. Removing the exemption for license fees for university reactors will jeopardize the future of these reactors and the future of the nuclear engineering programs. While the U.S. Court of Appeals rejected inability to "pass through costs" as a basis for exemption of non-profit organizations from the annual license fee, it suggested that universities provide "large externalized benefits that cannot be captured in tuition or other market prices" and that this could be a basis for continuing the license fee exemption. I submit that the external benefits of university reactor programs are extensive and provide sufficient basis for granting a exemption for universities It would be ironic and unfortunate if the present action of the Commission weakens nuclear engineering programs and causes some of them to close, while at the same time the NRC is trying to encourage students to enter nuclear engineering through its fellowship program.

I urge you to continue the license fee exemption for university reactors.

Sincerely,

G. A. Emmert

Gilbert A. Emmert
Professor and Department Chair