UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

February 4, 2014

James Dyer
Chief Financial Officer
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Request for Fee Exemption

Mr. Dyer:

The National Institute of Standards and Technology (NIST) Center for Neutron Research respectfully requests an exemption from all annual fees associated with reactor license TR-5 as permitted by 10 CFR 171.11. The exemption of all fees is in the public interest because the NIST reactor is a Federally-owned (U.S. Department of Commerce) reactor facility used for research activities supporting the mission of NIST which is to:

> "Promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life."

The NIST Center for Neutron Research (NCNR) operates as a national user facility serving the neutron measurement needs within the entire U.S. technological community. A 20 MW reactor (NBSR) serves as the neutron source and supports diverse research programs in the fields of engineering, materials development, polymer dynamics, chemical technology, magnetics, medicine, and physics. Neutron beam experimental time is allocated by a merit-based, peer-reviewed proposal process at no cost to the user if the research is published in the open literature. Each year, over 2100 research participants from government, industry, and academia from all areas of the country are served by the facility.

The NBSR was originally licensed in 1967 for a maximum operating power of 10 MW. It operated at that power level until 1985 when the reactor power was increased to 20 MW to support a rapidly growing experimental program utilizing cold neutrons for neutron scattering research. Over the next two decades, the number of neutron scattering instruments at the NCNR grew to 25 and the facility has been recognized as one of the premier neutron research centers in the world. Thousands of experiments have been carried out at the NCNR and have produced over 6000 publications. In FY13, the breakdown of institutions utilizing the NCNR included 148 academic institutions. These numbers are typical and make the NBSR the highest impact NRC-licensed reactor supporting academic research.

NIST

The NIST reactor (NBSR) is licensed by the NRC as a *Test Reactor* (Facility Operating License TR-5) under 10 CFR 50.21(c). 10 CFR 171.11(2) states that an annual fee is not required for:

> "Federally-owned and State-owned research reactors used primarily for educational training and academic research purposes."

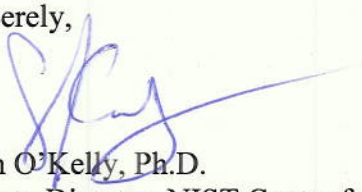
The regulation goes on to essentially state that a "research reactor" is any reactor licensed under section 104c of the Atomic Energy Act of 1954 that is not a test reactor. This is a very limiting definition when one considers that the only currently operating test reactor (i.e. the NBSR) in the U.S. performs no in-core materials irradiation studies or fuels testing and has only been used for research supporting the NIST mission in the public interest. Further, the language of 10 CFR 171.11 is counter to the more frequently updated regulation, § 10 CFR 171.15, *Annual Fees: Reactor licenses and independent spent fuel licenses*:

> "(a) Each person holding an operating license for a power, test, or research reactor; each person holding a combined license under part 52 of this chapter after the Commission has made the finding under § 52.103(g); each person holding a part 50 or part 52 power reactor license that is in decommissioning or possession only status, except those that have no spent fuel onsite; and each person holding a part 72 license who does not hold a part 50 or part 52 license shall pay the annual fee for each license held at any time during the Federal fiscal year in which the fee is due. This paragraph does not apply to test and research reactors exempted under § 171.11(a) [underlined for emphasis]."

This underlined sentence implies that the intention of § 171.11(a) may have been to exempt all Federally-owned and State-owned research *and test* reactors (or use the all-inclusive term for both found in § 10 CFR 50.2: *non-power reactors*) used primarily for educational training and academic research purposes.

An exemption from 10 CFR 171.15 annual fees is justified and in the national interest because the high-quality and diverse research performed at the NCNR as a national user facility serves the public good. Relief from these fees would allow the NCNR to use the available funds to support NBSR infrastructure, facility reliability improvements, and research programs at the NCNR. I may be contacted directly if you or any members of the NRC staff have questions pertaining to this request and need additional information at 301-975-6260 or by email at sean.okelly@nist.gov. I look forward to your positive response to our request.

Sincerely,



Sean O'Kelly, Ph.D.
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cc: A. Adams, NRR/DPR/PRLB
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