AEROTEST OPERATIONS, INC.

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June 4, 2018

ATTENTION: Document Control Desk
NRC's Chief Financial Officer
U.S. Nuclear Regulatory Commission
White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

AEROTEST RADIOGRAPHY AND RESEARCH REACTOR
DOCKET NO. 50-228/LICENSE NO. R-98.

Request for 10 CFR 170.11 and 170.11 Exemptions

Ladies and Gentlemen:

Enclosed please find the document "Request for 10 CFR 170.11 and 170.11 Exemptions 6-4-2018." This letter and enclosure replace the previous ones dated 1-4-2018. I declare under penalty of perjury that the statements made in the enclosure are correct and truthful to the best of my knowledge. Also the document in its entirety does not contain confidential information.

Should you have any questions or require additional information regarding this submission, please contact AO President David M. Slaughter, Ph.D. at (801) 631 5919 or dmsraven@gmail.com

Sincerely yours,

David M. Slaughter, Ph.D
President.
Aerotest Operations, Inc.

Enclosures:
1. Request for 10 CFR 170.11 and 170.11 Exemptions 6-4-2018

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NRR

Request for 10 CFR 170.11 and 171.11 Exemptions 6-4-2018
Aerotest Operations, Inc.
ARRR (R-98) /Docket No. 50-228

Aerotest Operations complies with Small Entity Status and should be allowed to pay fees at significantly lower amounts based on 10 CFR 170.11(a) and 171.11(a)

Aerotest Operation Inc. is a small business that complies with the FY 2018 US NRC Small Entity Compliance Guide. The definitions are based on the Small Business Administration's regulations 13 CFR Part 121. It is the only Part 50 License holder (and its parent, Nuclear Labyrinth, LLC) that that meets the status of a Small Entity. Activities not currently subject to 10 CFR part 170 licensing and inspection fees based on existing law or Commission policy (e.g., reviews and inspections conducted of nonprofit educational institutions, costs that would not be collected from small entities based on Commission policy in accordance with the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, regulatory support for Agreement States, generic decommissioning/reclamation activities for fee classes other than power reactors and spent fuel storage/reactor decommissioning, the in-situ leach rulemaking, activities for unregistered general licensees). The Commission policy is flexible and changes are based on a reasonable and compelling argument.

> "The commission may upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of this part as it determines are authorized by law and are otherwise in the public interest".

Historically, the annual fee has comprised of a base fee with the Commission providing fee-relief adjustments. A small Entity owning a Part 50 license is rare and in fact exclusive to Aerotest Operations, Inc. therefore this request does not set a new precedent allowing for other requests by other current part 50 licensees.

On its own merit Aerotest Operations complies with the intent of the act and should be exempt from paying fees under 10 CFR 170.11(b) and 171.11(c)

Its parent company Nuclear Labyrinth, LLC, is a small entity specializing in education, research and development in the field of Nuclear Forensics and related nuclear technologies. (Both are small businesses, that comply with section 31(a) of the AEA-1954, as amended). Understanding the importance of these facilities, The AEA-1954 allowed for the Commission to assist in the research activity independent of institution type, private or public. The protections to ensure minimum regulation (and cost) for safe operation to the conduct of research and development and training activities are clearly stated in the AEA-1954, 31 (a):

> "The Commission is directed to exercise its powers in such manner as to ensure the continued conduct of research and development and training activities in the fields specified below, by private or public institutions or persons, and to assist in the acquisition of an ever expanding fund of theoretical and practical knowledge in such

> fields. To this end the Commission is authorized and directed to make arrangements (including contracts, agreements, and loans) for the conduct of research and development activities relating to ....."

In addition, university students are involved with ARRR owned and operated by Aerotest Operations through two universities: University of Utah and University of California-Berkeley. The agreements (MOUs) define educational and training activities that relate directly to the technical areas listed in 31 (a) AEA-1954. It is stated in the AEA-1954 section 31b (1):

> "the commission is authorized-to make grants and contributions to the cost of construction and operation of reactors and other facilities and other equipment to colleges, universities, hospitals, and eleemosynary or charitable institutions for the conduct of educational and training activities relating to the fields in subsection (a) of this section."

AEA-1954 ***does*** allow for the commission to assist in costs associated with the conduct of research and development independent of institutional type and costs from educational and training activities relating to the fields specified in 31(a) of this section."

In general, educational institutions do not comply with AEA-1954 and therefore should not be granted 10 CFR part 170 and 171 cost exemptions from the NRC.

On a separate but related issue, there is a concern that universities with 10 CFR part 170 and 171 cost exemptions from the NRC are allowed to compete with Aerotest Operations that currently must pay these NRC fees. This amounts to a federal subsidy and results in giving an unfair financial advantage to state and federally owned assets to compete openly with private businesses providing equivalent services. This situation is especially egregious when it impacts a small business.

As stated earlier the AEA-1954 ***does*** allow for the commission to assist in costs associated with conduct of educational and training activities relating to the fields noted in 31(a). It appears from the language in the AEA-1954 that it ***does not*** include education and training costs related to research and development activities (or other related functions) not listed in the contents of section 31(a) or ***does not*** cover the cost of activities within the subsection if the activity is not associated with education and training.

The original intent of educational/training exemptions detailed in 10 CFR 170.11 and 171.11 were in part, to provide financial assistance by supporting the more costly nuclear assets and less-efficient processes inherent in education and training activities. For the NRC contribution, this eliminated the costs of safety and security oversight by the NRC, DOE supported the education/training mission by providing facility upgrades, nuclear fuel, and cost-effective access (Reactor Sharing). Both agencies' contribution effectively lowered the delivery costs of nuclear-related educational programs and thus making those subsidized programs more competitive with other academic disciplines. This provided an incentive for the universities and colleges to retain these programs even during the time of declining student enrollment.

Unfortunately, university administrations over the years have reduced the direct and indirect funding associated with education and research. Many institutions did not replace nuclear related faculty when they left or retired resulting in reduction in force by attrition. (NRC has a faculty incentive program to assist in hiring and retaining qualified teachers that slow this trend.)

Lower utilization for research and teaching forced many of these reactor programs to seek alternative funding to cover the "cost of operation." Some these services are not classified as research, development or investigative in nature or possess a small, if any, education or training component. While the financial commitment of University administrations have lessened, subsidies provided by DOE and NRC have not.

Recently, Aerotest solicited the participation of another university reactor program to join with University of Utah, and University of California-Berkeley in a privately funded program to develop and implement a new Mo-99 production technology. No other subject was discussed. Simply, when they responded declining my offer, this statement was included:

> "The VC for Research is also wary of any collaboration with a potential competitor (i.e. neutron radiography) as things can quickly become very complicated".

There is no surprise about the sentiment expressed here except that the statement above was included in a written response. Most university licensees have been progressively shedding their cost responsibly for the reactor facilities to outside non-educational commercial activities. However these same institutions have been enjoying the benefits associated with the reactor programs in support of the AEA-1954, NRC cost-saving exemptions, and DOE reactor programs. I should be mentioned that most states have non-compete laws preventing state-funded universities from competing for work when equivalent services and capacity are available in the state's private sector.

It is understood that the administrative and academic conflicts exist at universities; education and research have become very much a business at these institutions. The availability of these research reactors private or public alike, cannot be lost, so an equitable solution should be sought.