

February 16, 2018

Mr. Matthew Sanford  
Interim Reactor Facility Director  
University of Missouri-Columbia  
Research Reactor Center  
1513 Research Park Drive  
Columbia, MO 65211

SUBJECT: UNIVERSITY OF MISSOURI AT COLUMBIA - REQUEST FOR WITHHOLDING  
INFORMATION FROM PUBLIC DISCLOSURE RE: REVISION TO LICENSE  
AMENDMENT REQUEST TO IMPLEMENT SELECTIVE GAS EXTRACTION  
TARGET EXPERIMENTAL FACILITY AT THE UNIVERSITY OF MISSOURI  
RESEARCH REACTOR (CAC NO: A11010/05000186/L-2017-LLA-0227)

Dear Mr. Sanford:

By letter dated February 5, 2018 (Agencywide Documents Access and Management System Accession Package No. ML18039A011), the University of Missouri Research Reactor submitted a revision to its license amendment request (LAR) to produce molybdenum-99 using the General Atomics Selective Gas Extraction process, which included an affidavit executed by Christina A. Back, Vice President of Nuclear Technologies and Materials, General Atomics, requesting that information contained in the following documents be withheld from public disclosure pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.390:

1. LAR Attachment No. 1, "License Amendment Request to Implement Selective Gas Extraction (SGE) Target Experimental Facility (TEF) at the University of Missouri Research Reactor"
2. LAR Attachment No. 4, GA Report 30441R00021: "Target Assembly Thermal Analysis"
3. LAR Attachment No. 6, GA Report 30441R00031: "Mo-99 Target Assembly Nuclear Design for Once-Through Operation"
4. LAR Attachment No. 7, GA Report 30441R00032: "RELAP Accident Analysis and FRAPTRAN Target Rod Transient Analysis Design Calculation Report"
5. LAR Attachment No. 8, GA Report 30441R00017: "ANSYS Target Cartridge, Housing Structural Analysis Design Calculation Report"

Publicly available versions of these documents were provided to the U.S. Nuclear Regulatory Commission (NRC) where the proprietary information on each page has been appropriately redacted.

The affidavit stated that the submitted information should be considered exempt from mandatory public disclosure for the following reasons:

- a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Atomics' competitors without license from General Atomics constitutes a competitive economic advantage over other companies.
- b. Information which, if used by a competitor, would reduce his or her expenditure of resources or improve his or her competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product.
- c. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.
- d. The information sought to be withheld is being submitted to the NRC in confidence. The information is of a sort customarily held in confidence by General Atomics, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by General Atomics. No public disclosure has been made, and it is not available in public sources.
- e. The information classified as proprietary was developed and compiled by General Atomics at a significant cost to General Atomics. This information is classified as proprietary because it contains detailed data and analytical results not available elsewhere. This information would provide other parties, including competitors, with information from General Atomics technical database and the results of evaluations performed by General Atomics. Release of this information would improve a competitor's position without the competitor having to expend similar resources for the development of the database. A significant effort has been expended by General Atomics to develop this information.
- f. The research, development, engineering, and analytical costs associated with General Atomics' unique selective gas extraction system and process comprise a substantial investment of time and resources by General Atomics, whose precise value is difficult to quantify, but clearly is substantial and extends beyond the original development cost. Public disclosure of the information sought to be withheld is likely to cause substantial harm to General Atomics' competitive position.

The NRC staff has reviewed your submittal in accordance with the requirements of 10 CFR 2.390 and, on the basis of the statements in the affidavit, has determined that the submitted information sought to be withheld contains proprietary commercial information and should be withheld from public disclosure.

Therefore, the submitted information marked as proprietary will be withheld from public disclosure pursuant to 10 CFR 2.390(b)(5) and Section 103(b) of the Atomic Energy Act of 1954, as amended.

Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned to inspect the documents. If the need arises, we may send copies of this information to our consultants working in this area. We will, of course, ensure that the consultants have signed the appropriate agreements for handling proprietary information.

If the basis for withholding information from public inspection should change in the future such that the information could then be made available for public inspection, you should promptly notify the NRC. You also should understand that the NRC may have cause to review this determination in the future, for example, if the scope of a Freedom of Information Act request includes your information. In all review situations, if the NRC makes a determination adverse to the above, you will be notified in advance of any public disclosure.

If you have any questions regarding this matter, I may be reached at (301) 415-0893 or by electronic mail at [Geoffrey.Wertz@nrc.gov](mailto:Geoffrey.Wertz@nrc.gov).

Sincerely,

***/RA Steven Lynch for/***

Geoffrey A. Wertz, Project Manager  
Research and Test Reactors Licensing Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

Docket No. 50-186

cc:

Les Foyto, Associate Director  
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Homeland Security Coordinator  
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Jefferson City, MO 65101

Planning Coordinator  
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Test, Research and Training  
Reactor Newsletter  
P.O. Box 118300  
University of Florida  
Gainesville, FL 32611

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