DWIGHT LOOK COLLEGE OF ENGINEERING

Department of Nuclear Engineering

TEXAS A&M UNIVERSITY

Docket No. 50-059 License No. R-23

April 15, 2015

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attn: Mr. Alexander Adams, Jr., Chief,
Research and Test Reactors Branch

SUBJECT: TO PROVIDE AN OVERVIEW OF PLANNED ACTIVITIES TO DISSASSEMBLE AND TEMPORARLY RELOCATE THE AGN 201M REACTOR TO THE NUCLEAR SCIENCE CENTER SITE

I am writing this letter to you as the newly-appointed coordinator for the planned relocation of the Texas A&M University (TAMU) AGN 201M Reactor located in the Zachry Engineering Center. I will be reporting directly to the AGN management structure in this role.

The purpose of this letter is to inform the NRC staff of activities, both planned and underway, that have an impact on the AGN 201M Reactor. TAMU is moving forward with an expansion of the Zachry Engineering Center. A project plan has been developed internally that has several milestones associated with the engineering, design, and construction of a major addition to the Zachry Engineering Center. This project plan includes the room in which the AGN 201M Reactor and support equipment are located. This room will be required to support the planned expansion of the Zachry Engineering Center. The College of Engineering is very excited that the opportunity arose to finance the expansion of the Zachry Engineering Center.

Our plans recognize that the AGN-201M Reactor is currently located in the Zachry Engineering Center, Room 61. As the expansion of the Zachry Engineering Center will encompass the area where our AGN 201M Reactor is currently located, it will be necessary to relocate this reactor to the Nuclear Science Center (NSC) site. The early stages of the expansion of the Zachry Engineering Center have begun. The AGN 201M Reactor is being protected from ongoing work.

TAMU intends to move all special nuclear material from the AGN 201M Reactor site to the NSC site. Following removal and packaging of the special nuclear material, the AGN 201M Reactor will be disassembled. The special nuclear material, disassembled reactor and associated support equipment will then be transported to the NSC Site upon approval of an amendment request. The request will be to receive and temporarily store special nuclear materials on the NSC site in the fuel storage vault.

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The project plan relies on unrestricted use of areas currently supporting the operation of the AGN 201M Reactor. TAMU does not intend to terminate the license for the AGN 201M Reactor, even though it will be temporarily in a disassembled state. The sooner room 61 is released for unrestricted use, the faster our contractor can move forward with our expansion efforts.

Our belief is that room 61 does not contain any contamination; however a comprehensive effort will be undertaken to survey the area, including equipment being removed. If any contamination is identified, then the area will be thoroughly decontaminated in order to achieve unrestricted use and supporting the "free release" of the area within Zachry Engineering Center.

Thus, our goals are to completely empty Room 61 and to ensure it has been thoroughly decontaminated. After receiving approval from the NRC, the unrestricted use of the Zachry Engineering Center will allow construction work to be performed in Room 61 and surrounding areas.

Approvals from NRC are required for the following:

1) Allow special nuclear material from the AGN 201M and all relevant support equipment to be temporarily stored on the NSC site. Concurrent with this amendment will be the need to examine the License, Technical Specifications (TS), and Safety Analysis Report (SAR) to ensure changes requested, when approved, are incorporated in these documents for the NSC.

2) A change to the AGN 201M License is required to reflect the fact the reactor will be disassembled and stored on the NSC Site. Concurrent with this license change will be the need to examine the License, Technical Specifications and Safety Analysis Report to ensure changes requested are incorporated in these documents for the AGN 201M Reactor. It is conceivable that TSs, SAR, and License will be placed in a nonfunctional condition. The disassembled reactor will be unable to operate, as it will remain completely disassembled until a new building is constructed on the NSC site.

3) TAMU expects to have the NRC conduct independent surveys and evaluations of Room 61 and provide TAMU with documentation that affirms the unrestricted use of Room 61 and the immediate surroundings, as applicable.

TAMU is committed to operating the AGN 201M Reactor again, and as such, intends to construct a standalone building to house this reactor within or adjacent to the NSC site. Of importance to TAMU are issues with the AGN 201M Reactor license. The issues requiring resolution are:

1) Confirmatory Action Letter (CAL) issued in June 2013, by the NRC requiring the reactor to be shut down until concerns are resolved, and

2) License Renewal Application for the AGN 201M Reactor requires additional information from TAMU to allow the NRC to issue a renewed license.

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The process of safely moving the AGN 201M Reactor in a disassembled condition to the NSC site for temporary storage is an important aspect of the entire project. TAMU does not foresee use of any decommissioning funds for this relocation project.

This will be the second relocation of the AGN 201M Reactor, as it was moved to its current site in the early 1970's. TAMU intends to mimic the first move, to the maximum extent possible. It is our intent to follow the documentation contained in the NRC approved Amendment 9 to the AGN 201M license, dated February 4, 1972, entitled, "Application for Amendment for the Facility License No. R-23 for the AGN 201 M Training Reactor at the Texas A&M University dated November 3, 1970." Any updates to this approved document will be incorporated.

The AGN 201M Reactor is currently in long term shut down and will be fully disassembled to move it to the NSC site. TAMU intends to fully assemble and restore the AGN 201M Reactor to appropriate licensing requirements including robust shielding. Ultimately the reactor is to be operated as a training and educational tool for our students following the construction of a new building dedicated to house this reactor on the NSC site.

The initiative to construct the new building will require a Construction Permit Application pursuant to 10CFR 50.45 seeking NRC approval. Preliminary renderings have been prepared for the new building. Once engineering efforts begin, the development of a Construction Permit Application can begin. TAMU will rely upon the information contained in the Construction Permit for the Nuclear Science Center Reactor for many of the fundamental sections of the proposed Construction Permit Application. This activity will be initiated following implementation of our efforts on the other required amendments presented above and resolution of the technical issues associated with the CAL and License Renewal.

The procedure to implement our efforts planned for the packaging, handling, disassembly, moving, and transport of the AGN 201M Reactor will be based on our previous experience moving the reactor in the early 1970's. Specifically, we are relying on much of the content of Amendment 9, the familiarity of the AGN 201M Reactor by the TAMU staff, and expert assistance from the University of New Mexico (UNM) staff responsible for the safe operation of the AGN 201M Reactor located on their campus. We are also in possession of several documents provided by UNM that support our planned efforts. TAMU staff recently visited the University of New Mexico, noting their familiarity with removal and storage of radioactive fuel and components. We also intend to implement a Quality Assurance Program and utilize the content of Amendment 9 in support of efforts associated with this project. As stated in our letter of January 21, 2015, the University has retained ReNuke Services, Inc. of Oak Ridge, Tennessee to oversee and perform numerous activities in support of the project.

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Your cooperation, insights, and support of our efforts will be greatly appreciated. We believe the enhancement to the Zachry Engineering Center and the construction of a new building to house the AGN 201M Reactor will be significant to TAMU and the Department of Nuclear Engineering. We look forward to the opportunity to meet with your staff to discuss the entire project in greater detail.

Sincerely,

Sean McDeavitt, Ph.D.

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