UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 10, 2017

MEMORANDUM TO: Alexander Adams Jr., Chief
Research and Test Reactors Licensing Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Bruce Watson, Chief
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety and Safeguards

SUBJECT: UNRESTRICTED RELEASE OF THE AGN-201M RESEARCH REACTOR FACILITY ZACHRY ENGINEERING CENTER AT THE TEXAS A&M UNIVERSITY COLLEGE STATION – FACILITY LICENSE R-23, DOCKET NO. 50-59

On November 21, 2016, Texas A&M University (TAMU) submitted a License Amendment Request (LAR) to the U.S. Nuclear Regulatory Commission (NRC) requesting approval of the unrestricted release of the Zachry Engineering Center (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16326A447). The Zachry Engineering Center (the Center) at TAMU housed the AGN-201M reactor (Facility License R-23), as well as offices and laboratories in which radiological materials were used in support of reactor operations. The reactor and associated components have been packaged and placed in secure offsite storage, awaiting reinstallation in a new facility. The Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50 license is not being terminated as part of this request.

On November 10, 2016, TAMU submitted Revision 1 of the Final Status Survey (FSS) plan for the Center (ADAMS Accession No. ML16316A002). Although no NRC approval was required, the NRC reviewed the survey plan and determined that it was consistent with the guidance in NUREG-1537 Part 1, "Guidelines for Preparing and Reviewing Applications for Licensing of Non-Power Reactors," NUREG-1757, "Consolidated Decommissioning Guidance" and NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual."

On January 10, 2017, TAMU submitted the FSS results report for the Center (ADAMS Accession No. ML17010A057). The report stated that the survey met the FSS plan and demonstrated that the Center met the requirements for unrestricted use specified in 10 CFR Part 20, Subpart E. In accordance with the cited regulation, the site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a Total Effective Dose Equivalent to an average member of the public that does not exceed 25 mrem (0.25mSv) per year. TAMU committed to use the default screening values for surface contamination as presented in Appendix H of NUREG-1757,

Volume 2, Revision 1, as the upper limits for the project. The NRC reviewed the FSS report and has determined that the surveys were conducted in accordance with the FSS plan. Additionally, the NRC has determined that the survey results in the report comply with the criteria in the LAR, FSS plan and the release criteria in 10 CFR Part 20, Subpart E for the Center have been met.

At the request of the NRC, the Oak Ridge Institute for Science and Education managed by Oak Ridge Associated Universities (ORAU) conducted confirmatory survey activities at the Center during the week of November 14, 2016. The confirmatory survey activities included visual inspections/assessments, gamma measurements, alpha plus beta measurements, and smear sampling activities. As a result of the confirmatory survey activities, ORAU did not identify any issues with the FSS activities performed at the Center. ORAU documented the conduct and results of its survey activities in a report dated December 19, 2016 (ADAMS Accession No. ML16355A083). ORAU concluded that the licensee's FSS data adequately and accurately demonstrated that the Center is below the appropriate screening levels and that the ORAU confirmatory survey activities validate TAMU's conclusion that the appropriate guidelines have been met.

NRC staff from Headquarters observed the confirmatory survey activities conducted by ORAU at TAMU as part of the effort for the unrestricted use of Zachry Engineering Center. The NRC staff observed ORAU work in progress, examined the adequacy of the survey instrumentation, observed the calibration of instruments at the beginning and closure of each working day, witnessed the ORAU survey methodology, and both the exposure rate measurements and removable contamination samples taken. During the visit, NRC staff interviewed TAMU staff members and its contractor (ReNuke) personnel and conducted an exit meeting with TAMU radiation safety staff and faculty members. At the time of the visit, TAMU's decommissioning activities were already completed.

The staff has reviewed the residual radioactivity values in the FSS reports and compared them to the trigger values in the 2002 Memorandum of Understanding (MOU) between the NRC and the U.S. Environmental Protection Agency (EPA) entitled, "Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites" (67 FR 65375). Based on this review, the residual radioactivity at the site does not exceed the trigger values in the MOU and, as such, consultation with EPA in accordance with the MOU is not required.

Therefore, on the basis of clean-up activities carried out by ReNuke, the NRC's review of TAMU's final status survey report, and the results of NRC confirmatory surveys through ORAU, the NRC concludes that pursuant to 10 CFR 20.1402, residual radioactivity does not exceed 25 mrem (0.25mSv) per year and therefore, the Center is suitable to be released for unrestricted use.

In accordance with 10 CFR Part 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions concerning this matter, please contact Zahira Cruz at (301) 415-3808.

Sincerely,

/RA J. Parrott for/

Bruce Watson, Chief
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery, and Waste Programs
Office of Nuclear Material Safety and Safeguards

Docket No.: 50-59

cc: Docket Service List

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