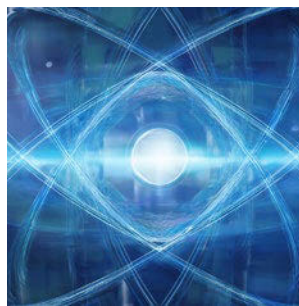


Fuel Cycle

superconducting radio frequency (SRF) cavities of the accelerator for increased efficiency, while the other aims to design magnetrons that could power the SRF cavities.

The project titled “Superconducting Nb₃Sn Cavities for Efficient and Reliable 10 MW Proton LINACs” will be extending work that has shown that coating the inside of niobium SRF cavities with tin allows them to operate at high enough temperatures to eliminate the need for costly cryogenic refrigeration facilities in favor of standard commercial cooling units. In collaboration with Radia-Beam Technology and Oak Ridge National Laboratory, the Jefferson Lab team will apply these findings to cavities that are specifically designed to be part of the neutron spallation process. They are also exploring a new class of cavities, called spoke cavities.

The second project, titled “High-Efficiency Continuous-Wave RF Sources for High-Power Particle Accelerators,” looks at the radio frequency power sources for these SRF cavities. The project’s aim is to develop magnetrons, which have many common applications including radar systems and microwave ovens but are less common in accelerator applications due to sporadic startup conditions and noisy spectra impacting operational stability. In collaboration with Stellant Systems, General Atomics Energy Group, and ORNL, the team will develop a high-powered magnetron with a proposed design that they believe will address the typical issues. ☒



**Speed, Efficiency, and High Confidence
in License Application Acceptance**

Offering Best-In-Class Solutions for Nuclear Facility Planning and Licensing

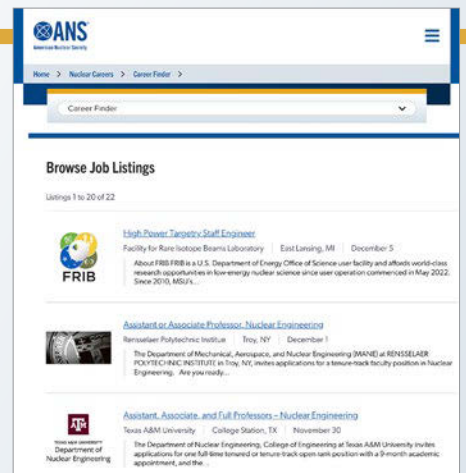
- Nuclear Facility Conceptual Design and Licensing
- Siting, Environmental Characterization, NEPA, and Regulatory Support
- Radiological/Chemical Dose Consequence Analysis, Dispersion Modeling, and Shielding
- Fire Protection, Criticality Safety, and Integrated Safety Analysis
- NIST SP 800-53/171 and CMMC Support

**SUPPORTING UNCONVENTIONAL NUCLEAR POWER
SYSTEMS FOR A SECURE NUCLEAR FUTURE**



[HTTPS://DEMASE-TECH.COM](https://demase-tech.com)

**UPGRADE
your JOB
LISTINGS
with ANS®**



Recruiting and hiring the best talent are significant challenges for many organizations right now. To further assist with your search and help set yourself apart in this competitive market, ANS is pleased to introduce premier online job listings! Premier credits include a company logo next to your listing, keeps your posting near the top of the job board, and a link to your posting is included in a monthly email to ANS membership.

- ▶ Visit www.ans.org/careers/finder to post today, or email advertising@ans.org to convert your existing basic credits to premier.