The AMC enables SRNL to integrate and exploit the unique attributes of national laboratories, commercial entities and educational institutions to stimulate innovative thinking, adapt new technology and train the future workforce to accomplish DOE missions. The AMC is critical to the success of both the DOE mission and local community economic growth and planning.

**Lessee**
-Aiken Advanced Manufacturing Partnership, LLC

**Lessor**
-Savannah River Nuclear Solutions, LLC

**Size**
-Approximately 60,000 square feet within a larger collaborative development

**Location**
-University of South Carolina-Aiken Campus

**Contact Information**
SRNL Office of Communications
803.725.7745

### AMC and the Community

The Savannah River National Laboratory Advanced Manufacturing Collaborative (AMC) supports a strategy focused on developing and adapting the best science and technology for the chemical and materials manufacturing needs of the Department of Energy (DOE), while also providing support for the state and local community both relationally and economically. The AMC will help the local community transition from an economic model which is largely dependent upon DOE resources to a more diversified, forward looking economic strategy, which has the dual benefit of supporting the Department’s research, development and deployment mission, while supporting the economic and academic capacity of the local community. To this end, the local community’s vision for economic development and founding of a manufacturing technology corridor is rooted in the establishment and success of the AMC. The AMC represents a unique opportunity for public-private investment in the establishment of next generation manufacturing technology and infrastructure which can lead to reduced costs and schedules for DOE missions while at the same time driving economic growth, job creation, and overall success of the local community.

### Background

The U.S. Department of Energy faces significant challenges with respect to aging and inadequate facilities and infrastructure for the Office of Environmental Management’s laboratory, Savannah River National Laboratory (SRNL), to perform mission needs. At the heart of the DOE-EM mission, is technology and infrastructure for chemical and materials manufacturing. DOE has directed Savannah River National Laboratory (SRNL) to develop a proposal for a the Advanced Manufacturing Collaborative that will focus on accelerating the insertion of advanced chemical and materials manufacturing technology into DOE/NNSA missions, educating the next generation chemical and materials manufacturing workforce, and promoting regional economic growth and infrastructure investment.

DOE has made significant progress in cleaning up radioactive and chemical waste from Cold War activities and nuclear research. Nonetheless, the remaining nuclear waste cleanup mission is now tackling the highest risk and most technically complex work that could cost an additional $300- $350 billion (USD) and take more than 60 years at current funding levels. SRNL has developed and implemented technology advancements that have resulted in over $5B of cost savings and avoidance. The Advanced Manufacturing Collaborative provides the platform to enhance and accelerate these cost saving opportunities through focused technology and infrastructure development risk management.
Impact
The proposed AMC will enable SRNL to translate a range of proven, advanced manufacturing technologies from the commercial chemical and industrial manufacturing sectors into DOE processes, plants and missions to significantly reduce cost and shorten the cleanup schedule. It will also allow for research and development of new technologies. Academic and industrial partners will gain the ability to work on the toughest advanced manufacturing problems, apply that knowledge and test results to their proprietary technologies and processes. Co-location with commercial entities and academic partners allows DOE to build a systemic approach to managing technology development for its nuclear materials and cleanup missions, shortens innovation and implementation cycles, and distributes cost among the collaborative partners.

Reshaping Manufacturing Innovation through Public-Private Partnership
The AMC will create a more open environment for collaborative advanced manufacturing research and development in areas such as process intensification, cyber security, robotics, smart manufacturing, virtual reality and additive manufacturing. This space will allow SRNL to shape the future of manufacturing innovation. The AMC is a critical cornerstone of the Laboratory’s transformative process as it seeks to shape the future in the areas of national security, environmental stewardship, and energy security and independence. The AMC will serve as the catalyst helping to promote public-private partnership between academia, industry and government in the area of advanced manufacturing technology and infrastructure development to support regional, national and global missions.

Collaboration through Regional Universities and Industrial Assistance
SRNL will occupy 60,000 square feet that will include chemistry labs, engineering fabrication labs, high bay and industrial space, and staff offices that will be located on the campus of the University of South Carolina- Aiken. Co-location on the University campus will facilitate a free flow of students, researchers, business leaders and investors to build an integrated community focused on manufacturing science, technology and innovation. This integrated technology community will catalyze growth and prominence in the region and position SRNL and South Carolina as national leaders in advanced manufacturing.

Project Status
SRNL has submitted to DOE the AMC Business Case for approximately 60,000 ft² of space designed to meet all mission need requirements and would begin construction within 90-days of receipt of funding with a construction duration of 18 months. The Business Case team has ensured that all requirements are being met for DOE approval. The AMC facility design and construction cost is in the range of $45-47M.

The Recommendation
DOE should move forward with the AMC. Approval and funding the AMC undergirds a more positive relationship between the community/State and the Department of Energy. Establishment of the AMC continues the transition of SRNL into a national manufacturing science and technology leader and positions the Laboratory for greater economic impact within the local region and State. Implementation of the chemical and materials manufacturing technology and innovation developed at the AMC reduces cost and schedule for the DOE. The collaborative nature of the AMC with a strong investment in the regional universities and industries drives South Carolina to the forefront of not only manufacturing production but also innovative R&D for manufacturing technology. The collaborative nature of the AMC will bring together the best and brightest from government, academia, and industry to push forward the process of progress in manufacturing technology and infrastructure development for the local community, State and Nation.