

News from Savannah River National Laboratory

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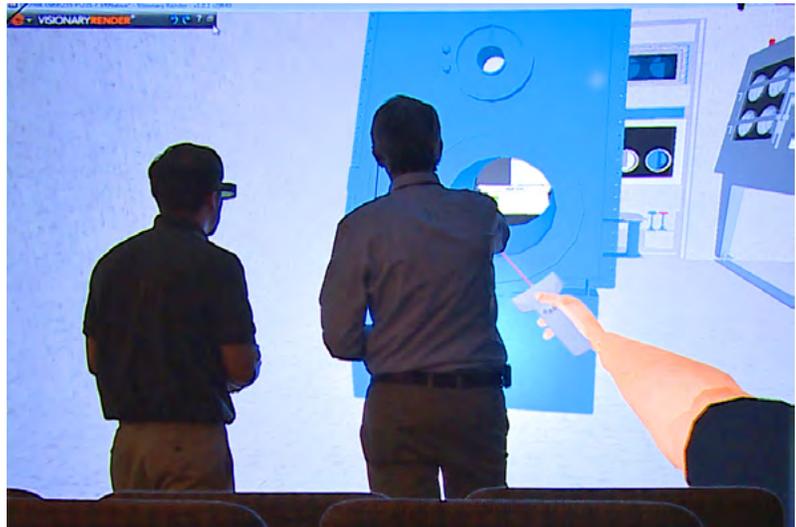
3D Training: Virtual Reality for Nuclear Material Handling

AIKEN, S.C. (June 1, 2015) – The Savannah River National Laboratory (SRNL) is applying a high-tech solution to complex and dangerous workforce training – virtual reality. Through the use of three dimensional programs, SRNL is making it easier to understand complex facilities and tasks, reducing the risk of accidental exposure to employees. Much in the same way that pilots use flight simulators, SRNL is using this technology to help train the nuclear workforce.

“The system works basically like a 3D movie,” explained SRNL Principal Engineer John Bobbitt. “The difference is that the system can track movements and the operator can move through a facility and operate tools on the screen, just like you would in the real world.” Similar technology is used in military and recreational applications to train and experience conditions that approximate real situations.

In creating the training system, researchers had to first convert two dimensional drawings into a 3D format. “This allows us to design custom tools to use in complex tasks. Also, instead of using scale models of facilities that take weeks to create, trainees can practice in a simulated environment that looks just like their workplace,” Bobbitt said.

Through the use of virtual reality, SRNL is able to save time and money, while creating a safer work environment. Employees are able to practice complicated procedures before they’re needed and can experience “out of normal” events to help prepare for emergency response.



Training through use of virtual reality technology at Savannah River National Laboratory



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Facilities at the Savannah River Site are so complex that physically touring them is difficult. Other facilities are hazardous and do not provide a suitable environment for training. The 3D training allows facilities to be viewed by workers at any time without the need to use personal protective equipment. It provides a clearer understanding of facilities and tasks, which means there is less chance for error.

The Savannah River National Laboratory (SRNL) is a multi-program applied research and development laboratory for the U.S. Department of Energy. SRNL applies state-of-the-art science and engineering to provide practical, high-value, cost-effective solutions for our nation's environmental cleanup, nuclear security and clean energy challenges. Visit us on the web at <http://srnl.doe.gov>

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