

SRS suspends portable reactor development

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Savannah River Site can no longer use its increasingly limited environmental management resources to pursue the development of small, portable nuclear power reactors.

The ambition to create a “small, modular reactor” farm, where a new generation of SMRs could be perfected for the commercial market, is a key facet of Enterprise SRS, a futuristic strategy designed to create jobs and future missions for the 310-square-mile site.

Although the U.S. Department of Energy announced agreements in March with three firms that are hoping to use SRS as a home base to study and develop mini reactor technology, site contractor Savannah River Nuclear Solutions received a directive from headquarters to “stand down” and devote no further funds or resources to the effort.

The order, first reported by the *Weapons Complex Monitor* in Washington, D.C., could delay but would not necessarily kill the initiative, which was to evolve gradually over the next decade, said Rick McLeod, the executive director of the SRS Community Reuse Organization, an economic development consortium.

“If the site cannot move forward with it right now, the communities may have to take more of the workload,” he said, noting that the SMR concept is one of the primary proposals under study for the site’s economic future.

Site officials have not divulged the extent of resources devoted to the SMR project, but its concept relies mainly on future funding from private investors with support such as government land and help from the site’s well-equipped Savannah River National Laboratory.

Eight locations within Savannah River Site have been identified as venues for the development of small, portable nuclear reactors that would become commercially available in 10 to 20 years.

The parcels that could someday be offered to the companies are mostly in areas that once housed nuclear weapons facilities and have already undergone suitability studies related to water table, geology, earthquake resistance and other factors.

Some have undergone recent cleanups and closures that make them available for new missions.

The three named companies involved in the SRS effort are Gen4 Energy, Holtec International subsidiary SMR and NuScale Power LLC.

The concept of small, modular reactors envisions prefabricated units that could be built in one site and moved – by truck or rail – to an area where they could be rapidly installed and deployed.

They would have benefits in small or remote populations and in sites where temporary power is needed, such as remote mining operations and military deployments.

The cost of bringing a concept reactor through design and licensing to production has been estimated from \$150 million to \$200 million all the way up to the \$750 million to \$1 billion range.

The Energy Department’s involvement stems from a desire to ensure that SMR technology resides in the U.S.

That objective, McLeod said, is important because other countries are already starting to explore similar ventures.

By offering the national lab’s array of technical assistance and a secure site in which to develop the projects, DOE hopes to stimulate investor interest that will help the private companies finance their projects.

That interest, some observers say, probably remains intact, even if SRS cannot use its current resources to pursue it.

“I think they were trying to use cleanup funds, which weren’t intended to be used for nuclear energy projects,” said Tom Clements, the non-proliferation policy director for the Alliance for Nuclear Accountability.

“The question is going to be, if they can get around it and legally use cleanup funds, or if they can get the (Energy Department’s) Office of Nuclear Energy to fund the program.”

At the very least, forcing the site to use its environmental management resources for its designated cleanup projects will delay further exploration of SMR research.

“The whole SMR thing has always appeared very premature and rather half-baked; since these reactors don’t even exist the companies don’t have money to pursue them,” he said. “So it’s all very highly speculative.”

The Energy Department, he added, seems to be doing a good job in making sure limited resources are spent on priority cleanup programs.

“With the scarcity of cleanup funding, someone has to make sure it’s being spent properly,” he said.
