

BCBR Article

Sporian tests sensors for nuclear reactor

By Beth Potter

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LAFAYETTE - Sensor maker Sporian Microsystems Inc. said Wednesday it received a \$150,000 contract from the U.S. Department of Energy to work on sensors to be used in Generation IV nuclear reactors.

As part of the project, Lafayette-based Sporian is subcontracting with the Pacific Northwest National Laboratory in Richland, Washington, to test sensors. The project is scheduled to run through March.

Such Generation IV reactors are being developed to use recycled reactor fuel. New reactor research is expected to improve safety and reliability, raising public confidence in nuclear energy, Sporian said in a press statement.

Existing Sporian sensors already are designed to withstand harsh environments and high temperatures associated with fossil fuel energy plants, said Mike Usrey, vice president of the company. Creating new sensors to detect potential radiation associated with nuclear plants is a new challenge for the company, Usrey said.

A big part of the challenge is figuring out what kinds of materials and packaging will best protect sensors from corrosion in conditions where there are a high levels of sodium, or salt. Sporian materials and technology can withstand exposure to liquid sodium, fast helium flow gamma and neutron radiation, the company said.

"The nuclear (environment) adds a new twist," Usrey said.

If the first phase of testing goes well, Sporian hopes to get future contracts after March, and could add new workers at that time.

Privately held Sporian also makes water purification sensors, recently shipping six of them to the Environmental Protection Agency and the U.S. Army Corps of Engineers in a \$250,000 contract.