TechBriefs

Savannah River National Laboratory

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At a glance

- Meets new regulations
- Cost-efficient
- Resists extreme conditions
- U. S. Patent 8,616,404

Contact Information

Partnering Opportunities

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SILDA (Stepped Integral Liner Drum Assembly)

Researchers at the Savannah River National Laboratory (SRNL) have developed a new concept for a shipping package which meets new government regulations while remaining cost-efficient.

Background

Government regulations from DOT and NRC for shipping hazardous materials have recently changed. As part of these changes, there has developed a need for shipping containers to replace existing shipping containers no longer allowed by the government regulations, which include new standards of rigorous testing. Due to the change in government regulations, previous shipping containers do not have the structural integrity needed to meet the revised standards of rigorous testing. Other designs have either failed the testing or are cost-prohibitive. The Savannah River National Laboratory has vast experience with design features that are required to resist the extreme conditions of the regulatory tests and has conducted tests on other, now certified packages, in recent years.

A Better Alternative

The SILDA design is a radioactive material transport package that incorporates unique integral liner welded within a standard 55-gallon drum outer shell and closed with reinforced lid assembly that interlocks within the liner. The design includes polyurethane foam for structural integrity and unique features to protect the contents from release during shipping events. The S-Drum and S-Lid provide smooth features that allow for decontamination and cleaning and are resistant to damage during normal operations.

Technology transfer

The Savannah River National Laboratory (SRNL) is the U.S. Department of Energy's (DOE) applied research and development laboratory at the Savannah River Site (SRS).

With its wide spectrum of expertise in areas such as homeland security, hydrogen technology, materials, sensors, and environmental science, SRNL's cutting edge technology delivers high dividends to its customers.

The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC. SRNS is responsible for transferring its technologies to the private sector so that these technologies may have the collateral benefit of enhancing U.S. economic competitiveness.

Stage of Development

This technology has been tested and is ready for high volume production. A patent has been issued from the U. S. Patent and Trademark Office.

Partnering opportunities

SRNS invites interested companies with proven capabilities in this area of expertise to develop commercial applications for this process under a cooperative research and development agreement (CRADA) or licensing agreement. Companies interested in licensing will be requested to submit a business plan setting forth company qualifications, strategies, activities, and milestones for commercializing this invention. Qualifications should include past experience at bringing similar products to market, reasonable schedule for product launch, sufficient manufacturing capacity, established distribution networks, and evidence of sufficient financial resources for product development and launch.

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