

# TechBriefs

## Savannah River National Laboratory

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### At a glance

- > Patent pending
- > Improved safety
- > Ease of use

### Contact Information

**Dale Haas**  
**Commercialization Manager**

Savannah River National Laboratory  
Bldg. 773-41A, Room 238  
Aiken, SC 29808

Phone: 803.725.4185

FAX: 803.725.4988

E-mail: [dale.haas@srnl.doe.gov](mailto:dale.haas@srnl.doe.gov)



## Pella Drum Opener: A safer alternative for removing lids from steel drums

An engineer at the Savannah River Site (SRS) has developed and tested a tool that facilitates the opening of open-head steel drums. This device resolves a safety issue with respect to drum handling.

### Background

There are two types of steel drums used to transport and store chemicals and other materials. Open-head steel drums have a removable lid that is secured to the drum with a one or two-piece closure ring. Closed-head steel drums have bung holes that can be used for attaching pumps to dispense liquids. The Pella Drum Opener has been used at SRS for safely removing the lids from open head steel drums. The issue with these drums is that under long periods of storage, the lids may be difficult to remove due to corrosion or vacuum or adhesion. In addition, the one-piece semicircular rings used to secure the lids to the drums result in pinch points when attempts are made to remove them. Use of hands or other tools to pry these rings from the drums creates an unsafe condition.

### The apparatus

The Pella opener was designed using steel forged construction and contains a knife-like blade used to wedge between the drum and the drum lid with the securing ring attached. The tool is applied by placing the removable blade between the drum and the lid where there is an opening to the drum ring. By applying upward force to the tool, the drum lid with the ring can easily be safely removed from the drum. This tool has been used at SRS and proven to be a safer alternative.



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### 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 and 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.

### Partnering opportunities

SRNS invites interested companies with proven capabilities in this area of expertise to enter into a licensing agreement with SRNS to manufacture and market this technology. Interested companies 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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