

News from Savannah River National Laboratory

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FOR IMMEDIATE RELEASE

SRS Railcar Platform Granted US Patent

AIKEN, S.C. (April 22, 2013) – Savannah River Nuclear Solutions has been awarded a US Patent for a unique ladder attachment platform. This innovative safety feature is designed to connect to the ladder rungs of a railcar and was invented by Principal Engineer Richard Swygert.

The platform can be used by railcar switchmen for enhanced safety. It is designed to attach to the railcar ladder, providing a stable platform from which the switchman can perform their duties. Under normal operations, when railcars are pushed or shoved by the locomotive a switchman is required to ride on the lead car to flag and provide watch for the locomotive engineer. These functions normally require the switchman to ride on the ladder attached to the side of the railcar. This standard practice requires the switchman to keep one hand firmly on the ladder, impeding the ability to operate an emergency brake, radio, or provide hand signals.



The platform can be used by railcar switchmen for enhanced safety and is rated for 300 pounds, load tested at 450 pounds.

The switchman platform, which can be attached to the railcar ladder, provides a stable platform upon which the switchman can ride in a normal standing position. Performing his duties in a standing position allows the switchman greater stability and a safer position from which to operate. The attached handrails allow the switchman to work independently of the ladder and face in any direction. In addition, the installed platform will comply with most common horizontal and vertical railcar clearances. The configuration allows the platform to be close to the railcar for horizontal clearances and high enough to clear standard manual switch equipment.



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Swygert serves as the Design Authority Engineer and Cognizant Technical Function for roads, bridges, railroads, dams, parking lots, and general grounds at the Savannah River Site. He was asked by the rail crew to design the platform to enhance their work environment during a project that required switchmen to spend extended amounts of time on duty. With their input and opinions from the safety engineer, Swygert went to work designing the platform.

“It’s easy to use and the rail crew was glad to have it during the project. The shoves for this project were just over three miles. That is a long time to hang on a ladder and the crew often had to stop to change switchmen due to fatigue,” said Swygert. “We want to pursue anything that will help make the job safer for the people in the field. This invention is a tool that will not only help switchmen at the Savannah River Site, but railcar workers everywhere.”

The Savannah River Site operates on over 30 miles of on-site railroad. This equipment has been designed, developed, and successfully used for railroad shipment operations at SRS since 2008. In Fiscal Year 2012, ten US patents and three foreign patents were granted as a result of innovation and research at the Savannah River National Laboratory and Savannah River Nuclear Solutions.

Sponsored by DOE’s Office of Environmental Management, SRNL is DOE’s applied research and development national laboratory at the Savannah River Site. SRNL puts science to work to support DOE and the nation in the areas of environmental stewardship, national security, and clean energy. The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC.

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