



PD01-0361-07

Lechler Spray Nozzle

Problem

The INEEL's Closure and Stabilization Activities project needed to remove waste from high-level radioactive waste tank walls and uniformly mix both liquid and solid residuals.

Baseline Technology

Deployment of a low-pressure decontamination system using the Light Duty Utility Arm.

Innovative Solutions

The Spray Nozzle directs a high-pressure water jet at tank walls to remove solids and mix tank contents.

Comparison

This nozzle is more effective for cleaning and mixing than a low-pressure system and eliminates usage of aggressive chemicals.

Benefits

This nozzle uniformly mixes tank contents, significantly reduces the number of samples required for characterization, improves worker safety by reducing aggressive chemical use, and results in an estimated lifecycle cost avoidance of \$5.3 million.



HIGH LEVEL WASTE PROGRAM

Project: ID-HLW-105
Closure and Stabilization Activities