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Underground Transport Remediation Research

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Abstract:

Contamination of an underground transportation system (e.g., a subway tunnel, station, and/or rolling stock) following an intentional release of a biological agent such as *Bacillus anthracis* will require rapid, widely available, and cost-effective decontamination methods. As part of the Department of Homeland Security's (DHS's) Underground Transport Restoration (UTR) Program, researchers from EPA/ORD, EPA/OLEM, EPA Regions and the Commonwealth of Virginia have worked together on various research and operational efforts as to improve our understanding of subway remediation issues. These studies ranged from bench scale studies on the impact of environmental conditions and realistic surfaces on fumigation and fogging efficacies to a full-scale demonstration in a mock subway tunnel and station at Fort A.P. Hill, VA.

This webinar will discuss outcomes of the bench- and pilot-scale studies and their role in the selection of the decontamination systems that were used during the UTR operational technology demonstration as well as the main outcomes and lessons learned from this full-scale demonstration related to efficacy, sampling approaches, overall cost, and waste management will be presented.

Bio:

Dr. Lukas Oudejans is a Physical Scientist with US EPA's National Homeland Security Research Center's Decontamination & Consequence Management Division. Over the past nine years, he has gained vast experience in homeland security programs related to research, development, and evaluation of innovative technologies for the decontamination of materials contaminated with chemical or biological agents. He recently was a co-lead of the full-scale underground transport restoration operational technology demonstration effort. Lukas holds a Ph.D. in Experimental Physics from Radboud University, Nijmegen, The Netherlands.