

EPA Strategies, Policies, and Tools to Advance Greener Cleanups: Evaluating Progress to Date

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Background/Objectives. The USEPA has a firm goal to build sustainability into its core mission, protecting human health and the environment. To this end, cleanup programs in the Agency are leveraging multiple policies, authorities and technical tools to advance the practice of greener cleanups to reduce the environmental footprint of work at contaminated site cleanup projects. Some efforts have been underway for several years, while others are more recent, but they are designed to work synergistically. Examples include the recent Superfund policy memo on greener cleanups, the rollout of the Superfund Remedial Acquisition Framework, and the use of the ASTM Standard Guide for Greener Cleanups. This presentation will discuss how the more significant strategies, policies and tools are working together to achieve a broader acceptance of the practice.

Approach/Activities. For approximately the past decade, hazardous waste cleanup programs within EPA have been promoting the application of greener cleanup approaches. In August 2009, the current Office of Land and Emergency Management (OLEM) released its *Principles for Greener Cleanups*, which serves as the foundation for the Agency's greener cleanup policy. Among other things, the Principles establish a policy goal to evaluate cleanup actions comprehensively for the purpose of ensuring protection of human health and the environment and reducing the environmental footprint of cleanup activities, to the maximum extent possible. Since then, the application of greener cleanup approaches has been expanding across most remediation programs, including RCRA Corrective Action, Brownfields, Leaking Underground Storage Tanks (LUST), and PCB Cleanup under TSCA. Within this context, OLEM has initiated the development of an evaluation framework for assessing EPA's progress in promoting greener cleanups. The framework considers the relationship between desired outcomes, such as increased use of greener cleanup BMPs at site cleanups across the country, and direct or indirect efforts by the Agency and partners, such as policies, training, and technical tools. Multiple data sources will support the analysis, including a large national survey conducted across the EPA cleanup programs in 2016. Other sources include participation in training events, downloads of technical documents, and an analysis of projects where greener cleanup practices have been implemented.

Results/Lessons Learned. Preliminary findings suggest that significant progress has been made raising awareness of greener cleanup practices and tools. For example, results from the Internal EPA survey indicate there has been significant growth in awareness and familiarity with greener cleanups practices nationwide. About 91% of the 461 respondents who answered this question are familiar with the term "greener cleanups." On the other hand the Agency anticipates challenges collecting nationally representative data of reductions across greener cleanup core elements and is exploring alternative approaches to evaluate the ultimate environmental outcome of greener cleanup efforts.