

Purpose

The investigation and cleanup of contaminated properties consumes energy, water and natural resources, creating an environmental footprint. Greener cleanups strive to consider all environmental effects during a cleanup and incorporate approaches to minimize the footprint. The goal of the U.S. Environmental Protection Agency (EPA) greener cleanup standard initiative is to maintain, through a consensus process, a standard that improves the environmental outcome of cleanups.

To provide a process and technical direction on how to reduce the environmental footprint of cleanup activities.

Status

ASTM International issued the [Standard Guide for Greener Cleanups](#) (E2893-13) in November 2013. The standard guide provides a systematic protocol to identify, prioritize, select, implement and report on the use of greener cleanup best management practices (BMPs). It includes a list of more than 100 BMPs, provides an option for integrating a quantitative evaluation and includes a reporting structure to promote public availability of the decision-making process and outcomes across the five core elements for greener cleanups.

The standard complements regulatory and voluntary cleanup programs and accommodates each phase of a cleanup.

Core Elements of Greener Cleanup

- ◆ Minimize total energy use and maximize use of renewable energy
- ◆ Minimize air pollutants and greenhouse gas emissions
- ◆ Minimize water use and impacts to water resources
- ◆ Reduce, reuse and recycle material and waste
- ◆ Protect land and ecosystems

Two adjuncts support the standard guide's use. One adjunct is the Appendix X2 "Technical Summary Form" as a writable PDF. The second is the Appendix X3 "Greener Cleanup BMPs" table in an Excel format, which enables users to sort BMPs by remediation technology and core element and to add their own BMPs to the table.

EPA representatives continue to work with the ASTM task group on updates to the standard guide, based on technology developments and user input.

Benefits

Use of the standard guide is:

- ◆ Providing uniform expectations for greener cleanups across the cleanup programs.
- ◆ Making it easier for regulators and the regulated community to implement greener cleanups.
- ◆ Serving as a reference for contracting, policy and grants.
- ◆ Building upon state and local government incentives for greener cleanups.
- ◆ Facilitating implementation of EPA's Principles for Greener Cleanups.

Background

EPA supported the initiative by:

- ◆ Identifying greener cleanup core elements that were incorporated into EPA's cross-program [Principles for Greener Cleanup](#) policy.
- ◆ Coordinating with ASTM International, a standard developing organization, on materials to kick off the consensus-based process.
- ◆ Facilitating a dialogue among EPA and state cleanup program representatives volunteering to serve on ASTM International's task group drafting the standard.
- ◆ Issuing a [Memorandum to Regional Administrators and Office Directors](#) recommending that regions and OLEM programs facilitate and encourage its use.

Standard Guide for Greener Cleanups

EPA Contacts:

Carlos Pachon, EPA Superfund Program,
pachon.carlos@epa.gov
or 703-603-9904

Deborah Goldblum, EPA Region 3,
goldblum.deborah@epa.gov
or 215-814-3432

Web Links:

U.S. EPA Greener Cleanups
www.epa.gov/greenercleanups/greener-cleanup-consensus-standard-initiative

U.S. EPA CLU-IN/Green Remediation Focus
www.cluin.org/greenremediation/standard

ASTM International
<http://www.astm.org/Standards/E2893.htm>