



Providing Outcome-Based Solutions Through ASTM Environmental Standards

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EPA/NIST Standards and Conformity
Assessment Workshop

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ASTM Overview

- Non-governmental, not-for-profit
- Forum for the development of technical consensus standards based on international criteria
- 12,000 standards from 140 technical committees
 - Standards include test methods, specifications, practices, guides, terminology, classifications
 - Sectors served by ASTM committees include metals, energy, chemicals, construction, environment, medical and pharmaceutical, consumer products, new technologies

ASTM & EPA

- Over 90 EPA staff from headquarters, regional offices and laboratories participate in ASTM technical committees
- 869 references to ASTM standards in Title 40 of the CFR
- ASTM standards assist EPA in its important mission:
 - Climate change – 42 ASTM references in the Mandatory Reporting of Greenhouse Gases Rule
 - Air quality – Committee D22 develops standards for analysis and sampling of attributes such as airborne fibers, asbestos, and mold
 - Chemical safety – Standards to test for chemicals and substances such as dioxins, arsenic, formaldehyde, phthalates, PFC and PBDE
 - Water – ASTM activities in water quality and safety, water reclamation and reuse, and in water stewardship as part of green buildings
 - Land and Community clean up – Develop standards for waste management, determining biodegradable and compostable products, and environmental site remediation

E50 on Environmental Assessment, Risk Management and Corrective Action

- Over 20 years old with 1200 individual members from 29 different countries
- Scope is to develop management standards relating to environmental assessment, risk management, corrective action due diligence, and sustainability.
- 33 Approved Standards
- Meet Face-to-Face twice per year
- Virtual/teleconference meetings as needed

E50 on Environmental Assessment, Risk Management and Corrective Action

- E50 Stakeholders Represented
 - Environmental Professionals
 - Geotechnical Engineers
 - Real estate industry
 - Financial industry
 - Lawyers
 - Government representatives from EPA and state agencies
 - Academia and research

Example of E50/EPA Partnership: ASTM E1739 - Guide for a Risk Based Corrective Action Process at Petroleum Release Sites

- States requested a consistent, efficient process for the assessment and response to a petroleum release from storage tanks.
- Before E1739 was approved, states used a single corrective action process regardless of complexity and severity of site.
- EPA and States participated in the development process
- E1739, initially approved in 1995, provides a decision making process for the assessment and response based on the complexity, physical and chemical characteristics and the risk posed to human health and the environment.
- At least 44 states have environmental corrective action programs based entirely or partially on E 1739.
- Outcome: Tiered approach to clean-up is more efficient and cost-effective.

Example 2: E50/EPA Partnership

EPA All Appropriate Inquiries Regulation/ASTM E1527 Phase I Site Assessment Process

- Congress enacted the Brownfields Revitalization Act establishing criteria for assessments.
- E50 and the EPA engaged early-on and coordinated efforts so that the regulation and standard could be consistent.
- Regulation references E1527 as a safe harbor.
- Future revisions to the regulation and E1527 are being planned.
- Outcome: E1527 is a viable option or one-stop solution for compliance.

WK23495, Standard Guide for Green and Sustainable Site Assessment and Cleanup

- Working with EPA and other stakeholders, this is still a work-item (i.e. not an approved standard).
- EPA would like to see a consistent framework that identifies and incorporates green and sustainable remediation (GSR) practices, environmental best management practices, and appropriate metrics to assist in the revitalization of a Brownfield site.
- As drafted, the item is comprised of four specific sections including environmental, economic, social, and a final section that integrates all of these aspects.

WK23495, Standard Guide for Green and Sustainable Site Assessment and Cleanup

- Potential users of this guide will include property owners, regulators, consultants and the public/community.
- Guide will reference other standards to improve measurement metrics (energy saved, water conserved, etc.)
- ASTM will be working with the EPA to attract new members from State, local and tribal government as well as from Environmental Justice Groups and Communities.
- Intended Outcome: A valuable guide to enhance the regulatory process and optimize remedial strategies that are environmentally advantageous.

New Members Joining this Effort

Federal, State and Local Governments

- California
- Minnesota
- Illinois-2
- Michigan-2
- Texas
- Ohio
- Minnesota
- Florida
- Pennsylvania-2
- Montana-2
- Alaska
- Delaware
- Arkansas
- Mississippi
- US EPA-10 members
- Air force
- Army
- New York City Mayors Office
- New York City Dept of Parks and Recreation
- City of Dallas
- City of Phoenix
- Standing Rock Sioux Tribe
DER/EPA

Summary

- ASTM and other voluntary consensus standards organizations can be effective partners with EPA in support of the agency's mission and objectives.
- Defining outcome based objectives is important from the start.
- The consensus-based development process can complicate efforts, but often results in win/win outcomes.
- EPA engagement and communication is invaluable.
- The EPA Standards Exec can be a facilitator.

Thank you!

www.astm.org

ASTM E50 Homepage:

www.astm.org/COMMIT/E50.htm

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