

Green Cleanup Standards Initiative

Deborah Goldblum, *EPA Region 3 RCRA Corrective Action*



**ASTSWMO Meeting
Columbus, OH
April 15, 2009**

U.S. Environmental
Protection Agency

The Challenge: Integrating Green Cleanup Goals Across Programs

Regulatory Frameworks

- Superfund
- RCRA
- Federal Facilities
- Tanks
- Brownfields

Green Cleanup Goals

- Minimize ancillary impacts such as CO2 emissions to the air
- Minimize total energy use and promote use of renewable energy
- Preserve natural resources
- Maximize the recycling of material
- Maximize reuse options for land



The Solution: A Green Cleanup Standard

- Growing interest in social responsibility
- Companies have internal goals to become greener
- Could use new tools being developed
- Builds upon state and local government incentives
- USGBC expressed need
- Leverages resources in the private sector
- Can be applied across regulatory structures
- Addresses greenwashing
- May provide measurable results



Green Cleanup Standards Workgroup

- OSRTI (Superfund)
- OSW (RCRA)
- OBLR (Brownfields)
- FFRRO (Federal Facilities)
- OUST (Tanks)
- CPA (Cross program)
- OSRE (Enforcement)
- Regions 3 (lead), 2, 5, 6, 7, 8, 9
- Groundwater, Engineering and Federal Facilities Forums
- ASTSWMO (Illinois lead), MA, CA
- NIST (National Institute of Standards & Technology)
- EPA's Standards Executive



Standards Development

National Technology Transfer and Advancement Act (NTTAA)

- Enacted February 1996
- Requires federal agencies to develop standards through a consensus process



Conceptual Development for Green Cleanups Standard

STANDARD DEVELOPMENT

EPA initiates workgroup to develop Workplan for EPA management

EPA Workgroup partners with ASTSWMO to develop framework and incentives

EPA collaborates with Standard Developing Organization

SDO Develops Green Cleanup Standard through Consensus Process

Green Cleanup Standard

CERTIFICATION

EPA/States Evaluate Standard and Develop Recognition Program(s)

Self Declaration

Submit documentation to cleanup program

EPA/States Partners with Accrediting Organization(s)

Certifying Organization(s)

Recognized Compliance with Green Cleanup Standard

Potential Incentives

- Carbon off-sets and credits
- Credit for LEED or other certification programs
- Loans and grants
- Reduced processing time and fees for remedies
- Publicity and recognition
- Contract incentives
- Consultant education and accreditation
- Supplemental Environmental Projects (SEPs)



Key Attributes

- **Voluntary** - Not mandating new cleanup evaluation
- **Transparent** - Consensus based development
- **Universal** - Easier for stakeholders to implement
- **Flexible** - Program or State-specific recognition options
- **Minimal Resources** - Independent 3rd party or self-certification (audits)
- **Market Driven** - Promote technology innovation
- **Verifiable** - Documentation to support decisions

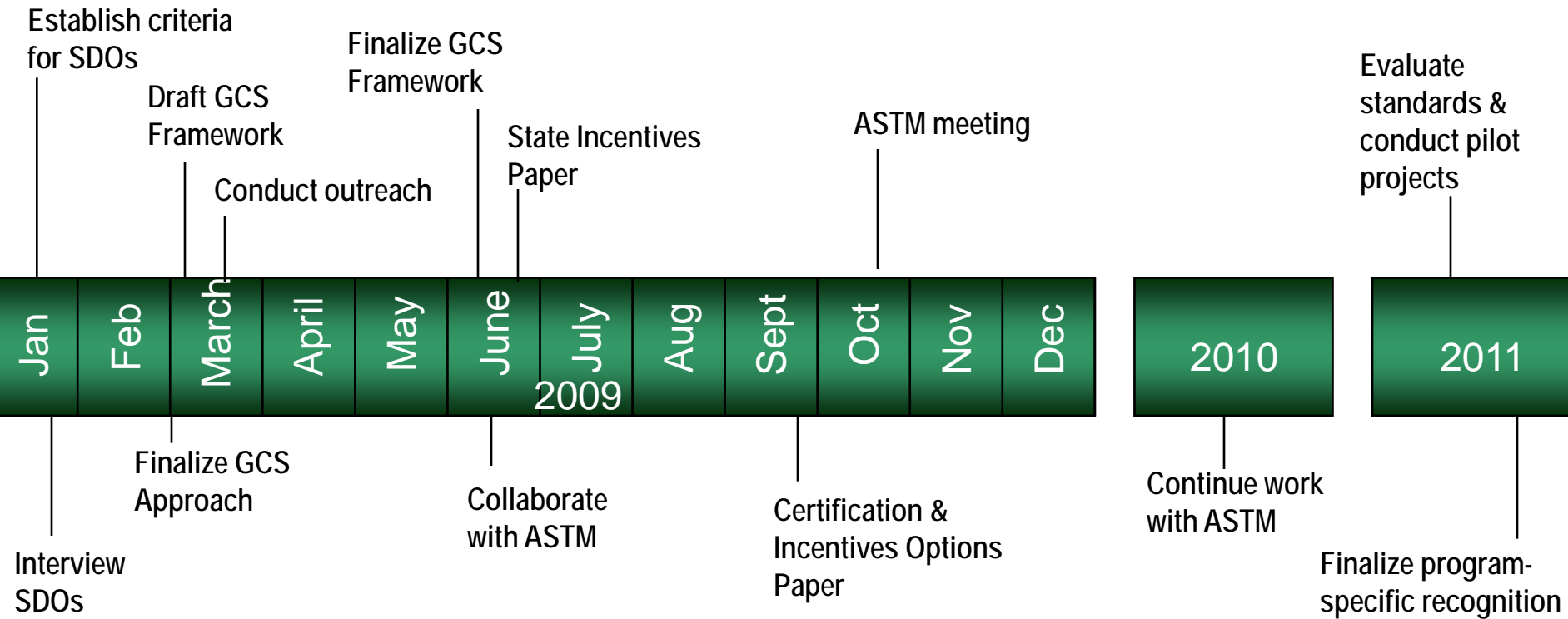


Key Challenges

- Keeping it simple (*given site specific nature of cleanups*)
- Defining boundaries (*cleanup vs. reuse; LCA*)
- Balancing various stakeholders' needs
- Specifying incentives & certification prior to completion of standard
- Establishing baseline values to measure improvements against
- Ensuring appropriate use of MNA under a standard



Green Cleanup Standard Initiative: 2009-2011 Timeframe



GCS: green cleanup standard
 SDO: standard development organization
 ASTM: American Society of Testing & Materials



Overview of Draft Framework

- Protects human health and the environment
- Meets applicable regulatory requirements
- Documents core elements and measures results
- Optimizes environmental outcomes (not worker safety issues) and encourages innovations such as:
 - Minimize Energy Use & Maximize Use of Renewable Energy
 - Minimize Air Pollutants and Greenhouse Gas Emissions
 - Minimize Water Use and Impacts to Water Resources
 - Optimize Future Land Uses and Enhance Ecosystems
 - Reduce, Reuse and Recycle Material and Waste
 - Optimize Sustainable Management Practice During Stewardship



Additional Information

Deborah Goldblum: goldblum.deborah@epa.gov

Kristeen Gaffney: gaffney.kristeen@epa.gov

Carlos Pachon: pachon.carlos@epa.gov

http://www.clu-in.org/greenremediation/subtab_b5.cfm

<http://www.astm.org/>

