

Federal Remediation Technology Roundtable (FRTR) Green and Sustainable Remediation (GSR) and Optimization Subgroup

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14 November 2013



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FRTR GSR and Optimization Subgroup

- GSR Subgroup incorporated Optimization 2012
- Subgroup Members
 - ▶ Navy - Amy Hawkins and Tanwir Chaudhry
 - ▶ Army - Kevin Roughgarden (OACSIM) and Vanessa Musgrave (AEC)
 - ▶ Air Force – Paul Jurena
 - ▶ DOE - Beth Moore (EM) and Jerry DiCerbo (HSS)
 - ▶ DOI -Emily Joseph
 - ▶ EPA - Carlos Pachon and Kirby Biggs
 - ▶ USACE – Dave Becker and Carol Dona
 - ▶ Others welcome to join – every other month calls



Projects

- FRTR Update on Partner GSR Implementation (proposed presentation for Spring 2014, 2 hours)
 - GSR Metrics – Amy Hawkins (Navy), Lead
 - GSR Best Management Practices – Carol Dona (USACE), Lead
 - GSR Evaluation Tools – Kirby Biggs (EPA), Lead
 - Contract Language & Incentives, Case Studies, New Guidance, Fact Sheets – Beth Moore (DOE), Facilitation



Projects (continued)

- Multiple homes for GSR Evaluation tools
 - ▶ Federal Agency Tools (publicly available)
 - SiteWise - Navy/Army/USACE/Battelle tool
 - SRT (Sustainable Remediation Tool) – Air Force
 - SEFA (Spreadsheets for Environmental Footprint Analysis) – EPA
 - ▶ Both Navy and Air Force websites are down for upgrading; USACE site is being disabled; FRTR web site transferred to EPA.
 - ▶ Alternate locations to provide easy access for different users:
 - EPA CLU-IN (practitioners, and a wide user audience)
 - FRTR (being rebuilt for federal users, linked to CLU-IN)
 - SURF (private sector users)
 - SERDP & ESTCP website (researchers, university, and national lab users)
 - FEDCENTER (who is the user??)
 - SERDP/ESTCP website



Projects (continued)

- Air Force and Navy Memorandums of Understanding (MOUs) with EPA Region 9
- Involves a pilot study where the EPA Region 9 footprint analysis tool (SEFA) and Air Force SRT (Air Force) or SiteWise (Navy) was conducted for comparison on one Air Force and one Navy installation. Site data from the Navy lead ESTCP LCA project was provided for this study
 - ▶ Air Force - Travis AFB (two sites)
 - ▶ Navy - Alameda Naval Air Station
- Goal: Based on pilot study findings, make recommendations for follow up action, including developing a strategy for how to apply the pilot study findings to remediation sites.
- Status: Both pilot studies are complete, project reports are under final review.



Projects (continued)

- ESTCP Project – Comparison of DoD GSR Evaluation Tools (SiteWise and SRT) to full Life Cycle Analysis – Navy Lead with Air Force and USACE participation, also Battelle, GSI, and Tetra Tech
 - ▶ Performed on 3 Air Force sites (SRT), 2 Navy sites (SiteWise) and 1 Army site (SiteWise), comparison of DoD tools to LCA, not each other
 - ▶ The DoD tools have distinct advantages over SimaPro (LCA tool) with respect to cost, ease of use, and ability to share files for collaboration, peer review, and documentation.
 - ▶ Generally all three tools predict similar results: consistency between tools improved after SiteWise and SRT recommendations from study results were made.
 - ▶ Need more consistent and complete conversion factor database – basis for another ESTCP proposal – not funded this year but there are plans to resubmit next year.



Projects (continued)

- Inclusion of GSR in remedy selection process to evaluate most sustainable technologies and approaches to achieve RAOs (e.g., criteria and risk-based alternatives)
 - ▶ GSR offers benefits for quantitative evaluation of remedy selection for both criteria (i.e., MCL) and risk-informed determination of endpoints and a holistic exit strategy.
 - ▶ DOE and DoD are seeking a site wide, risk-informed approach to establish endpoints and an exit strategy that potentially includes GSR BMPs and quantitative analyses with tools such as SiteWise, SRT, etc.
 - ▶ DOE drafted GSR contact and incentive language based on USACE guidance, currently under HQ review.



Challenges

- Definition of GSR boundaries
 - ▶ Everything that could reduce footprint?
 - Methodologies that allow maximum GSR implementation?
 - Flexible decision language?
 - Systematic planning?
 - Risk-based decision making processes

- Defining how GSR works within other structures, i.e. optimization



Questions?

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