

**EM-50 Sub Surface Contaminants (SubCon) & Accelerated Site Technology
Deployment (ASTD) sites & projects completed through September 30, 2002 by
MSE Engineering Economics Group.**

<ul style="list-style-type: none"> ◆ Permeable Reactive Barriers <ul style="list-style-type: none"> ◆ Tennessee – Oak Ridge NL ◆ Colorado – Rocky Flats ◆ Utah – Monticello ◆ Missouri – Kansas City 	SCFA & ASTD-SCFA
<ul style="list-style-type: none"> ◆ Soil Contamination Sampler <ul style="list-style-type: none"> ◆ Ohio - Fernald 	SCFA/ASTD
<ul style="list-style-type: none"> ◆ Deep Soil Mixing <ul style="list-style-type: none"> ◆ Ohio – Portsmouth Gaseous Diffusion Plant ◆ Kansas – Kansas City ◆ Illinois – Argonne NL East ◆ Florida – Cape Canaveral 	SCFA
<ul style="list-style-type: none"> ◆ DUS/HPO <ul style="list-style-type: none"> ◆ California - Visalia ◆ Ohio – Portsmouth Gaseous Diffusion Plant 	SCFA & ASTD-SCFA
<ul style="list-style-type: none"> ◆ In Situ Gaseous Reduction <ul style="list-style-type: none"> ◆ New Mexico – Whites Sands Missile Range ◆ Washington – Pacific Northwest NL 	SCFA
<ul style="list-style-type: none"> ◆ In Situ Vitrification - Hot & Cold <ul style="list-style-type: none"> ◆ New Mexico – Los Alamos NL 	SCFA
<ul style="list-style-type: none"> ◆ Phytoremediation <ul style="list-style-type: none"> ◆ Idaho – Argonne NL West ◆ Illinois – Argonne NL East 	SCFA & ASTD-SCFA
<ul style="list-style-type: none"> ◆ In-Situ Trichloroethylene Sampler at Test Area North <ul style="list-style-type: none"> ◆ Idaho – INEEL 	ASTD-SCFA
<ul style="list-style-type: none"> ◆ AEA Fluidic Sampler <ul style="list-style-type: none"> ◆ South Carolina – Savannah River Site 	ASTD-TFA
<ul style="list-style-type: none"> ◆ Slurry Monitoring <ul style="list-style-type: none"> ◆ Washington – Pacific Northwest NL 	ASTD-TFA
<ul style="list-style-type: none"> ◆ Cryogenic Barriers <ul style="list-style-type: none"> ◆ Tennessee – Oak Ridge 	SCFA
<ul style="list-style-type: none"> ◆ Viscous Liquid Barrier <ul style="list-style-type: none"> ◆ New York – Brookhaven NL 	SCFA

<ul style="list-style-type: none"> ◆ Alternative Landfill Covers <ul style="list-style-type: none"> ◆ Nevada – Nevada Test Site ◆ New Mexico – Sandia NL 	SCFA & ASTD-SCFA
<ul style="list-style-type: none"> ◆ SEAR at Neutral Buoyancy <ul style="list-style-type: none"> ◆ New Hampshire - Milford 	SCFA
<ul style="list-style-type: none"> ◆ Chemical Oxidation of DNAPLs <ul style="list-style-type: none"> ◆ Ohio – Portsmouth Gaseous Diffusion Plant 	SCFA
<ul style="list-style-type: none"> ◆ Segmented Gate System <ul style="list-style-type: none"> ◆ New Mexico – Sandia NL ◆ Texas – Pantex Plant ◆ Nevada - Tonapah Test Range ◆ New Mexico – Los Alamos NL ◆ Idaho – INEEL 	ASTD-SCFA
<ul style="list-style-type: none"> ◆ High Explosives Composting <ul style="list-style-type: none"> ◆ Texas - Pantex Plant 	ASTD-SCFA
<ul style="list-style-type: none"> ◆ In-Well Air Stripping <ul style="list-style-type: none"> ◆ New York - Brookhaven 	ASTD-SCFA
<ul style="list-style-type: none"> ◆ Personal Ice Cooling System <ul style="list-style-type: none"> ◆ Ohio - Fernald 	ASTD-DDFA
<ul style="list-style-type: none"> ◆ Bioremediation <ul style="list-style-type: none"> ◆ Idaho – INEEL ◆ Delaware – Dover AFB ◆ Poland – Czechowice Oil Refinery in Katowice 	SCFA & ASTD-SCFA
<ul style="list-style-type: none"> ◆ Dense Nonaqueous-Phase Liquid (DNAPL) Characterization Tools <ul style="list-style-type: none"> ◆ South Carolina – Savannah River Site ◆ Florida – Cape Canaveral ◆ Washington – Pacific Northwest NL 	SCFA
<ul style="list-style-type: none"> ◆ Mobile Tank Retrieval System <ul style="list-style-type: none"> ◆ Tennessee – Oak Ridge NL 	ASTD-TFA
<ul style="list-style-type: none"> ◆ Under Building Characterization <ul style="list-style-type: none"> ◆ Colorado – Rocky Flats 	SCFA
<ul style="list-style-type: none"> ◆ In Situ Redox Manipulation <ul style="list-style-type: none"> ◆ Washington – Pacific Northwest NL 	SCFA

<ul style="list-style-type: none"> ◆ Groundwater Reinjection <ul style="list-style-type: none"> ◆ Ohio – Fernald 	SCFA
<ul style="list-style-type: none"> ◆ Digface Characterization <ul style="list-style-type: none"> ◆ Idaho – INEEL 	SCFA
<ul style="list-style-type: none"> ◆ Six-Phase Soil Heating <ul style="list-style-type: none"> ◆ Illinois – Harwood Heights ◆ Illinois - Skokie ◆ Florida – Cape Canaveral 	SCFA
<ul style="list-style-type: none"> ◆ In Situ Stabilization <ul style="list-style-type: none"> ◆ Idaho – INEEL 	SCFA
<ul style="list-style-type: none"> ◆ Electro-Osmotic Transport <ul style="list-style-type: none"> ◆ California – Lawrence Livermore NL 	SCFA
<ul style="list-style-type: none"> ◆ SEAttrace Cost Analysis <ul style="list-style-type: none"> ◆ Maine – Brunswick Naval Air Station 	SCFA
<ul style="list-style-type: none"> ◆ Improved Surface Water Monitoring <ul style="list-style-type: none"> ◆ South Carolina – Savannah River Site ◆ Washington – Pacific Northwest NL ◆ New York – Brookhaven NL ◆ New Mexico – Los Alamos NL 	SCFA
<ul style="list-style-type: none"> ◆ Mixed Waste Macroencapsulation <ul style="list-style-type: none"> ◆ Tennessee – Oak Ridge 	SCFA
<ul style="list-style-type: none"> ◆ Lasagna <ul style="list-style-type: none"> ◆ Kentucky - Paducah Gaseous Diffusion Plant 	RCI
<ul style="list-style-type: none"> ◆ Integrated Decommissioning & Deactivation <ul style="list-style-type: none"> ◆ Idaho - INEEL 	ASTD
<ul style="list-style-type: none"> ◆ Smart Sampling <ul style="list-style-type: none"> ◆ New Mexico – Sandia NL 	SCFA

<ul style="list-style-type: none"> ◆ 3M Membrane <ul style="list-style-type: none"> ◆ Illinois – Argonne NL ◆ Kentucky – Paducah Gaseous Diffusion Plant ◆ New York – Brookhaven NL 	ASTD
<ul style="list-style-type: none"> ◆ Pump and Treat <ul style="list-style-type: none"> ◆ General – no specific site 	