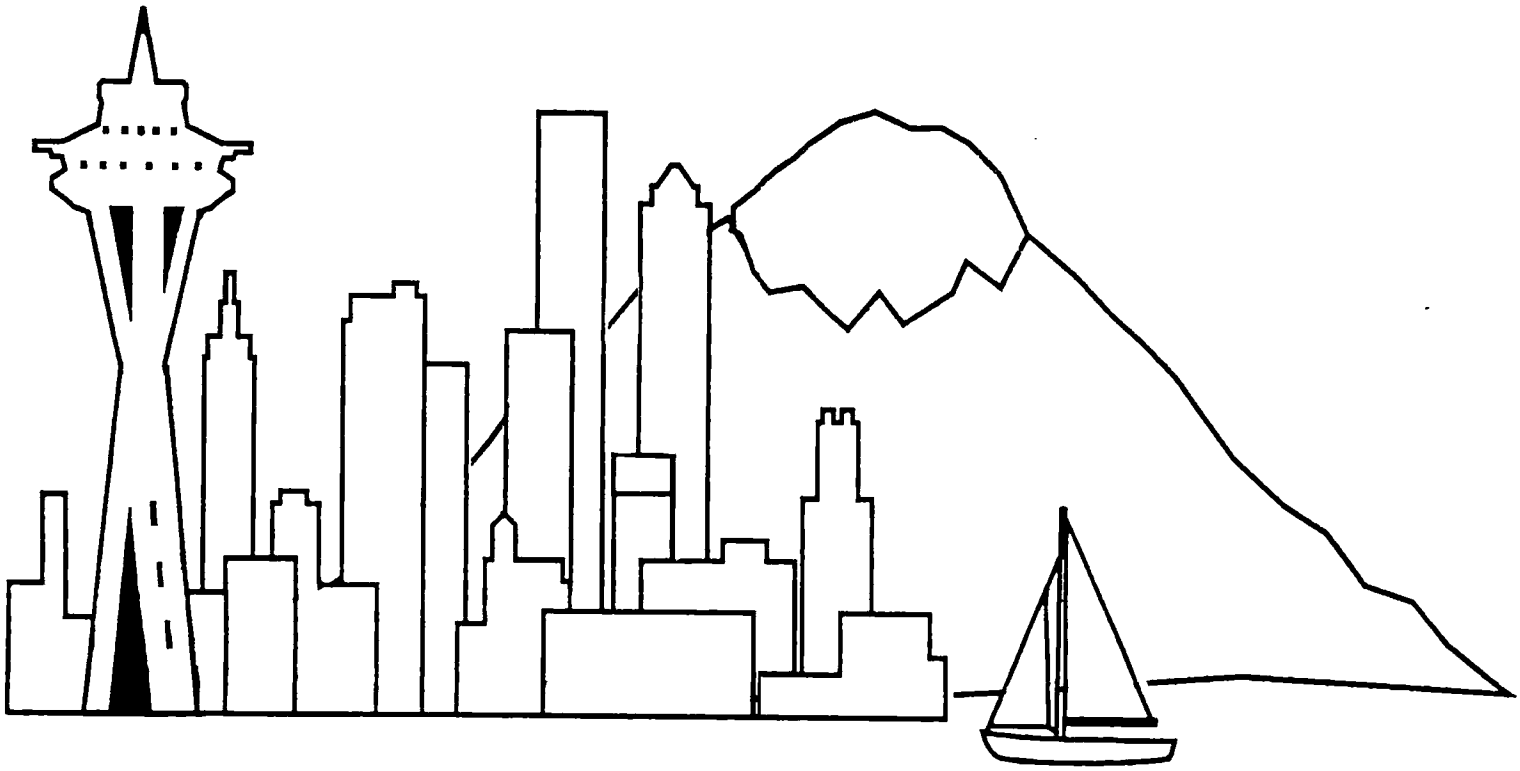
NATIONAL TECHNOLOGY SEMINAR



NTS'92 IN THE NORTHWEST

Sponsored by U.S. EPA Region X and OSWER

NTS '92
ATTENDEE LIST
Bellevue, WA
February 24 - 27, 1992

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DAY & TIME	SUBJECT	SPEAKER	AFFILIATION
WEDNESDAY 26TH			
	MORNING SESSION		
	MODERATOR: Greg Powell U.S. EPA/ERT		
8:15 - 4:30	REGISTRATION		
8:15 - 8:40	Cleanup Alternatives for Wood Treating Sites	Harry Allen	U.S. EPA/ERT
8:40 - 9:00	Immobilization of Organics	Kishor Parikh	Roy F. Weston/REAC
9:00 - 9:30	Catalytic Base Dehalogenation Destruction of Chlorinated Organics	Ray Funderburk	EmTech Environ. Services, Inc.
9:30 - 9:45	BREAK		
9:45 - 10:15	WASTECH Solidification Stabilization SITE Demonstration	Terrence Lyons	U.S. EPA/RREL/STDD/TSB/RSS
10:15 - 10:45	Encapsulation of Hydrocarbon Contaminants in Soil/Sludge with Siallon Structured Deactivation Technology	Robert Evangelista	KLEENTEK
10:45 - 11:30	Solidification of Metals	Steve Faryan Neville Kingham Mark Rigatti	U.S. EPA Region V Kiber Associates, Inc. OHM Remediation Services Corp.
11:30 - 1:00	LUNCH		
	AFTERNOON SESSION		
	MODERATOR: Bill Glasser U.S. EPA Region X		
1:00 - 1:30	B.E.S.T. Solvent Extraction Treatment of Toxic Soils, Sludges & Sediments	Lanny Weimer	Resources Conservation Co.
1:30 - 2:00	Characterization of Lead Mobility in Soils Through Batch-Type Reaction Tests and X-Ray Diffraction/Electron Microprobe Analyses	Robert Duffner	Ecology & Environ., Inc.
2:00 - 2:30	On-site/Geophysics Methods	Thor Cutler	U.S. EPA Region X
2:30 - 2:45	BREAK		
2:45 - 3:15	Groundwater and Hydrologic Modeling at the Carrollton, Kentucky Site	Henry He Scott Saroff	Roy F. Weston/REAC
3:15 - 3:45	The Role of Geophysical Well Logging to Determine Hydrogeologic Framework at Two Groundwater Contamination Sites	Stewart Sandberg	Roy F. Weston/REAC
3:45 - 4:30	CRYOCELL™ Frozen Soil Barrier Technology	Calvin Waller Greg Dash Ray Peters Chris Reno	LTG. USA RET., RKK, Ltd. University of Washington Scientific Ecology Group, Inc. RKK, Ltd.

ENCAPSULATION OF HYDROCARBON CONTAMINANTS IN SOIL AND SLUDGE WITH SIALLON STRUCTURED DEACTIVATION TECHNOLOGY. **Robert Evangelista. KLEENTEK, San Pedro, CA.**

A treatability study was performed by KLEENTEK, San Pedro, California, under supervision of Roy F. Weston, Inc. for the U.S. EPA Environmental Response Team to establish the effectiveness of Siallon Structured Deactivation Technology (SDT) for encapsulating hydrocarbon contaminants in the soil and sludge matrices of the PSC Industries site. SDT is a two step process to encapsulate hydrocarbons in soil: first, an emulsifier extracts and emulsifies the hydrocarbon material into small microdroplets; next, a reactive silicate reagent locks the contaminants into a three-dimensional amorphous structure. Three matrixes were treated with SDT: soil only, a two part soil to one part sludge mixture, and sludge only. A laboratory-scale pug mill was used in a continuous manner to apply emulsifier and silicate reagents to each matrix in a weight ratio of approximately 1 to 2, reagent to hydrocarbon. For the soil only matrix, total petroleum hydrocarbons (TPH) were reduced from 61,600 ppm to 11,200 ppm, an 81% reduction; total base, neutral and acid extractables (BNA) were reduced from 139.9 to 32.5 ppm, a 77% reduction. The sludge only mixture showed no change in contaminant concentrations. For the sludge/soil mixture, TPH were reduced from 81,100 to 35,100 ppm, a 57% reduction; BNA were reduced from 663.9 to 335.7 ppm, a 49% reduction. The reduction of contaminants in the mixture is attributable to reduction in soil contaminants. Additional treatability tests using SDT on soil only and sludge only matrices will be performed in the near future.