

## Introduction to DRIS— Deep Remediation Injection System

The Deep Remediation Injection System (DRIS) is a method utilizing the in-situ placement of remedial agents and air for on-site subsurface cleanup operations. It injects agents such as oxidizing chemicals, microbes, and nutrients into contaminated soils and groundwater to depths of 30 feet. High-pressure, low-volume injection is done with portable equipment. Air simultaneously injected through a lance into the impacted media increases the effectiveness of the remediation method.

### Biographical Sketch

Mr. Horsak received a B.S. in engineering from the University of Texas at Austin and an M.S. in environmental science from U.T.

at San Antonio. He has worked 26 years in all phases of environmental management. Mr. Horsak has worked on many of environmental projects with companies such as Brown & Root, Beck and Associates, NUS, Roy E. Weston, M.W. Kellogg, McLaren Hart, and most recently as the owner of Petra Environmental. He is the author of many papers on topics such as remediation and cost control, pollution prevention, regulatory trends, hazardous waste disposal, geothermal energy, and environmental auditing. Randy's project experience includes regulatory audits, remediation, training seminars, risk assessments, air permitting, engineering feasibility studies, and hazardous waste disposal for sites in the United States and Mexico. □

HGS Environmental & Engineering Geologists Dinner Meeting • Wednesday, September 8 • Jalapeno's Restaurant, 2702 Kirby  
Social 6:00 p.m., Dinner 6:30 p.m.